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Film and Television Production in New York City

Beyond the Glitz: Lights, Camera, Jobs

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Preface

The Film and Television Production industry is of paramount importance to New York City's economic well-being and sense of self. This industry creates fertile ground for cultural leadership and innovation. Film and television production both engenders and thrives on the concentration of acting and film professionals and allied businesses and institutions that supply and serve this synergistic complex. In this technologically vibrant world on the eve of the 21st century, it is critical for New York City to maintain a dynamic film and television production industry to stay on the frontiers of communications, entertainment, and information technology.

From its inception in 1991, the Economic Policy and Marketing Group has conducted in-depth research and analysis on vital industries and fundamental factors affecting the local economy. This study grows out of an earlier EPM report, *New York City 1991: the World's Capital in Transition*, that launched an examination of the competitive dynamics and challenges affecting our key industry sectors.

This report presents a careful analysis of developments over the past decade that played a role in the erosion of New York's market share and notes several signs of an impending rebound. The report also examines steps that can be taken to enhance the city's competitive edge, both in general, and in the burgeoning cable television and multimedia production areas.

This study was conducted by Cristina C. Ampil, EPM Regional Economist, under the direction of Chief Economist James Parrott. Numerous individuals contributed of their time, insight and assistance, and are recognized in the Acknowledgements section. Their generosity, of course, does not burden them with responsibility for this report's conclusions or recommendations.

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EXECUTIVE SUMMARY

Purpose of the Study

The motion picture and television production industry is vital to New York City's standing as a national and international leader in media, communications, and entertainment. Support for the industry has become an economic development priority, not just in New York City, but in many other localities that have seen the job generating potential of film and television production. At the request of the Deputy Mayor for Economic Development and Finance and the Mayor's Office of Film, Theatre, and Broadcasting*, the City's policy research agency, the Economic Policy and Marketing Group (EPM), studied the motion picture and television production industry in New York City.

EPM analyzed statistics and industry research, and interviewed several industry representatives in order to explore the reasons for the slowdown in production that began in the late 1980s in New York City and gauge the industry's prospects for growth in the years ahead. The study closes with recommendations that were developed after examining the city's challenges and opportunities in three key areas: cable and pay television, emerging applications of digital technologies, and the supply of local television production space.

The Importance of Motion Picture and Television Production to New York City

The focus of this study -- motion picture and television production in New York City -- includes more than 1,300 firms directly and primarily engaged in the production of theatrical and nontheatrical motion pictures and video tapes for exhibition or sale. In 1992, there were 9,900 jobs in production in New York City. The 20 largest establishments, which employ 100 or more workers, accounted for more than 50 percent of production employment. Motion picture and television production's payroll of $689 million in 1992 is equivalent to an average annual wage of $69,300.

Motion picture and television production is part of a larger industry, called the film and television production and the performing arts industry cluster in this study, which employs about 68,000 people in more than 3,900 firms that are involved in production to varying extents. In 1992, this cluster of film and television production and the performing arts employed 2.6 percent of the city's private employment. With a payroll of $3.5 billion, it contributed 3.2 percent of the city's private wages and salaries in 1992. The average annual salary in this industry cluster was $50,900 -- 24 percent higher than the $41,000 average salary in the city's private sector.

The industry cluster consists of businesses and individuals in radio and television broadcasting, cable television, and professional theatrical production (Broadway and Off-Broadway), in addition to the core motion picture and television production companies. The industry cluster also includes businesses that provide services allied to production (such as film editing, sound production, and equipment rental) and distributors of filmed and taped entertainment.

* The Mayor's Office of Film, Theatre, and Broadcasting will be referred to as the Mayor's Film Office in this study.

Nationally, motion picture and television production employed 118,500 workers in 1992. California accounted for close to 67 percent of U.S. production employment, while New York State employed about 10 percent, with New York City accounting for approximately 90 percent of New York State's employment and payroll in the industry. No other state accounted for more than three percent of U.S. jobs in motion picture and television production.

The impact of film and television production activity on the New York City economy is also measured by the purchases of local goods and services and compensation paid to residents in the course of production. In 1992, direct spending related to the production of feature films, television shows, commercials, and industrial films in the New York region added up to $1.44 billion. New York City accounted for 91 percent, or $1.31 billion, of this regional total. Including all the indirect and induced effects of the direct production expenditures through the local economy, the total annual economic impact of film and television production in the metropolitan region in 1992 was $3.0 billion.

There are four main categories of film and television production in New York City: television programming (including specials and movies), commercials, feature films, and industrial films. Production for broadcast and cable television in New York City expanded by about 36 percent over the past decade to become the dominant production category, replacing commercial production which has declined since 1985. The other categories, feature film production and industrial film production, also recorded double-digit growth in real production levels between 1983 and 1992. In addition, post-production expenditures on such processes as film editing, scoring, dubbing, and creation of special effects, have become significant in New York City in the past decade.

New York City offers distinct advantages to film and television production that would be hard to duplicate anywhere: the largest concentration of creative and cultural talent in the nation, a cosmopolitan lifestyle and a landscape that continue to inspire creative work and provide unique physical locations, and a large infrastructure of high-quality production and post-production services. New York City's outstanding educational and cultural institutions are key to keeping creative professionals here. These institutions are at once training grounds, sources of inspiration, and showcases for talent for artists, craftspeople, and other professionals in the industry.

Competitive Challenges

Production in New York City of feature films, television movies, specials, and dramatic series, as well as industrial films is significantly higher than a decade ago. However, New York City has not reaped the full benefit of the production industry's growth nationally. Between 1982 and 1992, employment in motion picture and television production grew by 44,000 jobs in the United States. All major production centers but New York shared in that growth. In New York, film and television production employment fell by 1,700 between 1982 and 1992. Consequently, New York's share of industry employment fell from 17.6 percent in 1982 to 9.7 percent in 1992.

The erosion in New York City's share was masked by continued growth in production activity until the late 1980s when production spending in the city peaked for feature films, television, and industrial films. The cumulative effect of diminishing production activity became apparent in significant job losses in film and television production in 1992, which pushed industry employment below 1982 levels.

The recent slowdown is partly a manifestation of the gradual shift of production to other areas in North America in the past decade. With low production cost environments and promotional campaigns directed at Los Angeles and New York production companies, several small production centers emerged. Indeed, until 1992 when it showed a remarkable rebound in employment, California also suffered a decline in its share of total industry employment.

The slide in New York City's market share may also be traced to increased resistance among producers to working in the city because of higher production costs as well as actual and perceived difficulties of producing here. The boycott of New York City by major film studios from November 1990 through May 1991, due to contract disagreements between the studios and some unions, reinforced the negative perception about the city. The effects spread to commercial production and only slightly to television production in New York City.

A full understanding of the factors affecting the production of commercials, which is the only category that has shown a steady decline since 1985 in New York City, is beyond the scope of this study. Nevertheless, it is known that commercial production was at least as vulnerable to the problems discussed above: stiff competition from Los Angeles and the nascent production centers, New York City's cost disadvantage, and the perception of the difficulty of producing in New York City.

Film Industry Development Programs in Other States

Having recognized that location filming can generate significant economic impact, many state and local governments in the U.S. and abroad have made the attraction of film and television production an economic development priority. The number of film commissions established in the United States and abroad increased fourfold in the 1980s.

Virtually all the state, provincial, and local film commissions in North America engage in a basic set of promotional activities: participation in trade shows, advertising in trade publications, and direct mailing to production companies all over the United States. A handful of states provide sales tax or hotel tax rebates to production companies in return for some minimum production-related spending in their areas.

Some production centers offer more substantial inducements to sway producers to do more than just location filming in their locale. By offering low-cost financing, equity investments, or outright grants for eligible production projects, Canadian centers and a few U.S. states aim to expand their production and post-production industries.

An emerging form of government support for the local film and television industry is investment in studio facilities. While private investment has been the major source of financing for production facility construction in the United States, Hawaii and Pennsylvania are financing and building sound stages in order to jump-start local film and television production industries.

Turning Point in 1993

There are encouraging signs that the film and television production industry in New York City is recovering strength. In the first 10 months of 1993, the number of permits issued by the Film Office for feature film production rose 30 percent compared to the year before. The number of production (or shooting) days for feature films in the city from January through October 1993 are up 38 percent over the same period last year. Moreover, since an increasing percentage of recent permits issued for feature films are for productions of the eight biggest studios in Hollywood, the production expenditures being generated are more substantial than in recent years.

Recent initiatives by local industry members, particularly the unions and the Mayor's Film Office, have improved the working environment for film and television production in New York City. For feature film production, the positive impact of initiatives taken by the Film Office was almost immediate. Stepped-up outreach and marketing to studios and producers at face-to-face meetings, trade shows, and film festivals in the U.S. and Europe has helped turn the tide of unfavorable opinion about the city. For cable television productions and other feature films which operate on lower budgets, the new agreements that the East Coast Council has crafted between producers and unions allowed dozens of projects to meet both creative and budget requirements in New York City. Moreover, the East Coast Council has eased negotiations significantly by representing several unions at once.

To ensure that these recent gains lead to long-term growth for the local industry, the City together with industry and labor need to focus on four priorities: accelerate the recovery of market share in feature films; restore New York City's position as the dominant commercial production center; build market share in cable television; and establish an edge in multimedia production for the interactive video future.

Opportunities in Cable Television

In the United States, motion picture and television production in the past decade was stimulated by the rise of cable television as a new outlet for film and video entertainment. Increased production and programming was driven by the expansion of consumer spending on basic cable, premium cable, and pay-per-view from just $2.5 billion in 1984 to $21.5 billion in 1992.

Being the headquarters location for the first major cable program supplier in the United States and then the site of six of the top 20 basic cable networks helped New York City capture some of the growth in cable television production. Currently, New York City's production industry has a major presence in categories including talk shows, music videos, and comedy shows. The other cable productions done in New York City are special coverage of sports and performing arts events, documentaries, interstitial programs (short programs with themes similar to the regularly scheduled shows), and promotional programs.

However, much of cable programming, even of the cable networks based in the city, is produced outside New York City. Original production of movies-of-the-week by premium cable networks in New York City is very limited. Among the major studios and independent production companies that supply the bulk of these types of production, New York City is not the preferred production location unless the script calls for a New York City setting. But even in cases when the script is written for a New York setting, such productions are rarely done here.

Compared to similar types of productions done for broadcast television, cable productions have significantly lower budgets. The tougher constraints on cable production costs have made producers seek locations where they could satisfy both creative and budget requirements. Areas where non-union labor is prevalent or where low-budget union agreements are in place have been able to attract more cable productions.

Since 1990, when the East Coast Council began crafting low-budget agreements between producers and the International Alliance of Theatrical and Stage Employees (IATSE) for projects with budgets under $7 million, New York City has become more competitive in cable production. As a result, more work has been created for union members.

The volume of cable production work provides a way of stabilizing employment in the motion picture and television production industry. In addition, gaining a bigger market share in cable television will put the local production industry in a better position to gain from the expected increase in demand for programming in the future world of interactive media.

To enhance the industry's efforts to attract more production, the City could develop an incentive program for producers who can meet some minimum local production requirements, such as a minimum percentage of total principal photography or total production spending. The City could mitigate New York City's cost premium and enhance its image as a distinctly favorable place for production by encouraging the development of facilities, such as office and parking space, needed by the production community.

Emerging Applications in the Interactive Video Future

Digital technologies, including compression technologies, are making it possible for multimedia products which combine words, pictures, data, moving and still images, and sound to be stored, edited, and played back on computers. The technologies have made computers into multimedia communications tools accessible to artists, educators, designers, and producers.

Combined with advances in technologies for transmitting video and audio signals such as fiber optics, digital technologies open the possibility of creating interactive networks through which multimedia files can be sent back and forth between users. Different industries that produce information and entertainment -- such as publishing, film production, television programming, electronic games, electronic merchandising -- and the computer industry will attain greatly expanded capacity to reach consumers and gain new formats for delivering their products.

For the motion picture and television industry, the initial stages of the move toward the interactive future will mean the ability to establish new outlets for the exhibition of programming assets. In a pay-per-view or video-on-demand set up, owners of programming assets will realize additional revenues each time consumers select their program for viewing. Later, when the necessary hardware and software is in place and consumer investment in next generation televisions, computers, and recorders has become widespread, demand for new and original programming may increase dramatically.

New York City is in a critical position to take advantage of the growth in multimedia production. Many of the pioneers in the interactive multimedia world are companies rooted in New York City. The city's telecommunications infrastructure is superior to any in the nation and the state and local governments are working closely to maintain New York City's edge in telecommunications. New York City has a growing stable of institutions like the Interactive Telecommunications Facility at New York University (NYU) and the Center of Advanced Technology also at NYU where people can learn how to create multimedia products and where businesses can experiment with and then launch commercial applications of the technologies. Most importantly, New York City's creative talent will be a key resource in driving the content and form of the emerging applications.

The City can help the production industry capitalize on these competitive strengths. By ensuring that artists, craftspeople, and businesses have access to training and state-of-the-art facilities, the City can hasten the learning of new techniques and foster business start-ups or expansions in multimedia production. The City's promotion of the local multimedia software and telecommunications industries assures that the other pre-requisites of leadership in the interactive multimedia future are met.

The Issue of Television Studio Space Shortage

The past decade saw considerable capital spending on construction and equipment in independent studio facilities in New York City, not counting the more substantial funds spent by the television networks on in-house studio development. Even with the active capital investment in production space in the past decade, however, television producers have raised the need for larger and more fully-equipped production space.

The apparent shortage in independently-owned large television studio space persists for at least two reasons. First, independent facilities do not have control over the volume of production and cannot expand on the basis of annual commitments or even four-year commitments from television projects. Second, the market for production space in New York City is affected by the substantial stock of large and modern production space in Los Angeles and Florida. Local production facilities have been hurt by the preference of studios and production companies based in Los Angeles and Florida to control costs by keeping production within their own facilities.

If not corrected, the lack of television studio space can become a severely limiting constraint on the city's ability to attract more television production. However, the shortage of large television sound stages co-exists with under-utilization of smaller, less modern, or inadequately equipped production facilities. In some cases, under-utilization may also be due to locations considered difficult to reach from Manhattan, where most of the production facilities and vendors are concentrated and where on-camera talent, producers, and directors prefer to stay.

This situation calls for twin strategies that would encourage private building of large, state-of-the-art studios and at the same time, assist in matching under-utilized facilities with small, independent producers in need of low-cost production space.

A Proposal for the Motion Picture and Television Production Industry

The Mayor's Film Office has started to move on several fronts to boost motion picture and television production activity in New York City and create more jobs in the industry through the establishment of: (1) an outreach program of direct and regular contact with the production and programming companies in Los Angeles; (2) a marketing program to highlight New York City's competitive advantages and the successful experience of producers and directors in the city; (3) more efficient municipal service delivery to the motion picture and television production industry; and (4) an effective partnership with the local industry to identify areas where the City can help make production a more efficient and less costly process in New York.

This analysis, in recommending additional strategies for job creation acknowledges that the local industry cannot compete principally on the basis of cost, but should instead exploit New York City's competitive advantages in creative ways.

A proposed strategy to strengthen motion picture and television production in New York City could be carried out through a number of initiatives.

- Providing financing to film and television producers who commit to a large percentage of total production spending or principal photography in New York City.

- Fostering the development of space needed by the production community, including private investment in large and state-of-the-art television production space and development of a production office center and a parking facility.

- Urging innovative labor agreements to increase the employment and earnings of creative and technical professionals in New York City.

- Marshalling government and private resources for the training of talent and technicians in the use of equipment embodying the latest digital technologies.

INTRODUCTION

New York City, the nation's first major center for motion picture and television production, has been a dominant player for decades. The 1983 *Arts as an Industry* study by the Port Authority of New York and New Jersey reminded us of the motion picture and television industry's roots in the region:

> "The industry has in fact operated longer here than anywhere else in the country...At one time the Astoria film studio in Queens was the most active production facility in the world, home to D.W. Griffith, Valentino, and W.C. Fields. The television industry began in New York..."

Motion picture and television production grew significantly through the 1980s. *Variety* and *Hollywood Reporter* followed production levels closely in this "great backlot of a city." The exuberant mood in the mid-1980s could be gleaned from the local paper headlines: "East Side, West Side, The Cameras Are Rolling All Around Town," "New York State Report Sees Trebled Production (To $6 Billion by 1990)," and "Local Facilities in Big Upgrade".

However, production started to slow down in the late 1980s. The most timely barometer of production activity, permits issued by the Mayor's Office of Film, Theatre, and Broadcasting* for location filming in the city, began to decline in 1989 and 1990 in most categories: feature film, television, documentaries, and music videos. The slowdown prompted many to think that the industry's problems had reached crisis proportions.

In response, in November 1992, Mayor Dinkins appointed someone from the industry as Commissioner. In January 1993, shortly after Commissioner Richard Brick assumed office, the Mayor elevated the Film Office to commission status among New York City agencies, doubled the budget of the office, and expanded its staff. The Deputy Mayor for Finance and Economic Development and the Commissioner of the Mayor's Film Office called upon the New York City Economic Policy and Marketing Group, or EPM, to conduct a study that would help the City government understand where the local motion picture and television production industry currently stands.

This study presents a close look at the state of motion picture and television production in New York City. By examining the causes of the recent slowdown and determining how much ground the city has lost to other production centers, it defines where the City should focus its resources in helping the industry. The report looks ahead to the anticipated growth in film and television production nationwide and points to areas where the City might build an edge.

* The Mayor's Office of Film, Theatre, and Broadcasting is referred to as the Mayor's Film Office in this study.

In Chapter I, the importance of motion picture and television production to New York City is established by showing the industry's employment size and its payroll, and the direct expenditures that production activity generates in the local economy.

Chapter II shows that the recent slowdown is simply a pause in production activity, not an irreversible decline. It directs the reader to a different perspective on the challenge that the industry is facing: New York City has not participated fully in the national industry's growth in the past decade and has therefore seen a decline in its share of industry employment and payroll.

The competition is coming from California, which is rebounding strongly from setbacks in the early 1980s, and from the other states and Canadian provinces that have won some business away from New York City. Chapter III presents the programs devised by the top production centers in North America that are used to help attract production activity to their areas.

The local industry has begun to meet its competitors' challenges and the Mayor's Film Office has proved to be an effective partner. The most recent initiatives of the industry and the City are beginning to bring the local industry back to its feet. Chapter IV reports on these developments and on 1993 indicators of an upturn in production activity.

Chapters V through VII deal with specific opportunities and issues which the Film Office identified as critical to re-building New York City's share in the motion picture and television industry. These chapters aim to answer the following questions. First, what can be done to assist the local production industry to gain a bigger share of growing cable television production? Second, how can the City help the industry to build on its competitive strengths and be a leader in emerging multimedia applications of digital technologies? Third, what can the City do to help the city's production facility operators, and if necessary, encourage investment in large and modern production space?

This report concludes with a set of recommendations aimed at attracting more production to New York City and helping the industry build a competitive edge in emerging forms of filmed and taped entertainment.

I. Motion Picture and Television Production in New York City

New York City firms engaged in production are classified in several industries by the U.S. Bureau of Labor Statistics: motion picture and television production, allied services, and distribution; radio and television broadcasting; cable and pay television services; and theatrical producers. Th industries draw from a common creative talent pool, use the same production services, call upon the same post-production vendors, and rely on the skills of the city's guilds and craft unions. This industry cluster will be referred to collectively as the motion picture and television production and performing arts industry.

New York City is home now to over 3,900 firms in the motion picture and television production and performing arts industry cluster. These firms include the headquarters of the top three broadcast networks and six of the top 20 cable networks. In 1992, the entire cluster employed over 68,000 people or 2.6 percent of the city's private employment. With a payroll of $3.5 billion, it contributed 3.2 percent of the city's private wages and salaries in 1992. The average annual salary in this industry cluster was $50,900 -- 24 percent higher than the $41,000 average salary in the city's private sector. Table 1 below shows the various components of the industry, indicating 1992 employment and average pay levels.

TABLE 1. Employment and Average Salaries in Motion Picture and Television Production and Performing Arts in New York City, 1992

Component	Employment	Average Salary
Total	68,000	$ 50,900
Motion picture and television		
Production	9,900	$ 69,300
Allied services	3,000	$ 58,900
Distribution	2,000	$ 67,500
Radio and television broadcasting	19,000	$ 59,100
Cable and other pay television services	6,500	$ 55,300
Theatrical producers and services	27,700	$ 35,700

Source: Insured employment series, New York State Department of Labor

Components of the Motion Picture and Television Production and Performing Arts Industry Cluster

Production

The core of the industry -- motion picture and television production (SIC 7812) -- in New York City includes more than 1,300 firms involved primarily in the production of theatrical and nontheatrical motion pictures and video tapes for exhibition or sale. It spans various categories: commercials, feature films, television shows, music videos, cartoons, and films for educational, religious, industrial and training purposes. Last year, there were roughly 9,900 jobs in production in New York City.

Allied Services and Distribution

Motion picture and television production is supported by allied services and distribution (SIC 7819 and 782). In 1992, there were 3,000 employees in 325 establishments engaged in allied services such as film developing and processing; film editing; titling; casting services; rental of wardrobe, equipment, and studio property; film and tape reproduction; stock footage film libraries; and consulting. Another 2,000 employees worked in 170 establishments involved in the rental or sale of theatrical and nontheatrical films and in the distribution of video tapes and disks in the business-to-business market.

Broadcasting

The radio and television broadcasting component (SIC 483) is made up of roughly 120 establishments employing 19,000 workers engaged in broadcasting aural and visual programs to the public. Classified in this component are companies primarily involved in broadcasting that also produce radio or taped television program materials.

Cable and Other Pay TV

The 67 New York City establishments in the cable and other pay television services component (SIC 484) are primarily involved in the distribution of visual and textual television programs, on a subscription or fee basis. Included in this industry are establishments engaged in both cablecasting and production of taped program materials. In 1992, there were 6,500 employees in the cable and pay television services in the city.

Theatrical Production

The 1,900 establishments in theatrical production (SIC 792) in New York City provide live theatrical presentations and services allied to these presentations. Although not usually included in narrow definitions of the motion picture and television industry, theater draws from the same talent pool and taps into the same production and post-production service providers as the rest of the film and television industry. This industry encompasses actors, actresses, and other performing artists. Also included are producers of live and taped radio programs and commercials, and producers of live television programs. Theatrical productions and services employed 27,700 workers in the city in the past year.

The largest New York City companies engaged in motion picture and television production and the performing arts are listed in Table 2 (on the next page). Some of the top employers include Time Warner, Capital Cities/ABC and Viacom International, all leaders in broadcasting and cable. As described in Appendix A, these companies have found ways to bridge their talents among the various components of the film and television production and performing arts industry.

Focusing on the Production Segment

This study focuses on the core of the industry, the motion picture and television production segment (SIC 7812) which counts employment in establishments **primarily** engaged in production. This segment is the most sensitive to changes in local production activity, offering the most insight into the trends affecting New York City's role as an industry leader. As mentioned above, motion picture and television production employs 9,900 workers in New York City. Its payroll of $689 million in 1992 is equivalent to an average annual wage of $69,300, making it the highest wage segment in the industry cluster. The average salary of motion picture and television production employees is 69 percent higher than the average salary in New York City's private sector.

A note on the data: with the exception of independent contractors or self-employed people, the insured employment data used throughout this report are a virtual census of establishments, jobs, and payroll in an industry.[1] In the case of motion picture and television production in New York City, approximately 8 to 10 percent of the workers are independent contractors or self-employed; consequently, the insured employment and payroll numbers may be understated.[2]

Establishment Size and Geographic Distribution

Ninety-five percent of the 1,300 New York City establishments involved in motion picture and television production employ fewer than 20 employees. However, large establishments dominate the motion picture and television production industry. (See Figure 1.) The 20 largest establishments, which employ 100 or more workers, account for over 50 percent of total industry employment. The small firms account for a quarter of the industry employment. The remaining 62 establishments employing between 20 to 99 workers account for a fifth of the production employment.

Manhattan is home to virtually all of the establishments and employment in motion picture and television production. Many of them are clustered in the Midtown area, where broadcast and cable networks are headquartered and where production and post-production facilities are concentrated. Sixty-eight establishments (or five percent of establishments) and 134 employees (or one percent of industry employment) are located in the four boroughs outside Manhattan.

TABLE 2. Largest Employers in the Motion Picture and Television Production and Performing Arts Industry in New York City

***Film and Video Production* (*SIC 7812*)**

CBS
Capital Cities/ABC, Inc.
Children's Television Workshop
Henson Productions
NBC
Scholastic, Inc.
Time Warner
Viacom International

***Allied Services* (*SIC 7819*)**

Du-Art Film Labs
Magno Sound & Video
Sound One
Steve Horn, Inc.
Unitel Video
World Vision Entertainment

***Distribution* (*SIC 782*)**

ABC Distribution
Angelika Films
John Blair Communications
MCA
Showtime
Troma
Viacom International
Walt Disney
Worldvision Entertainment

***Cable and Other Pay TV Services* (*SIC 484*)**

Capital Cities/ABC, Inc.
Paragon Communications
Paramount
Time Warner
Viacom

***Radio and Television Broadcasting* (*SIC 483*)**

<u>TV</u>
WABC (Capital Cities/ABC, Inc.)
WCBS (CBS, Inc.)
WNBC (General Electric Co.)
WNYW (Fox Broadcasting Co.)
WPIX (Tribune Broadcasting Co.)

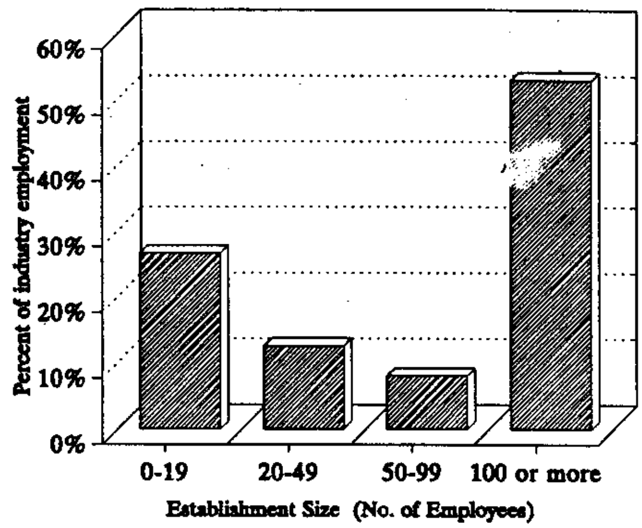
<u>Radio</u>
WRKS (Summit Broadcasting Corp.)
WLTW (Viacom International)
WABC (Capital Cities/ABC, Inc.)
WCBS (CBS, Inc.)
WBLS (Inner City Broadcasting)

***Theatrical Productions* (*SIC 792*)**

Circle in the Square
Hall Carnegie Corporation
ICM Holdings
Jujamcyn
Lincoln Center
Madison Square Garden
Metropolitan Opera Association
Nederlander Organization
Polygram Holding
The Procter and Gamble Company
Radio City Music Hall
Shubert Organization
William Morris Agency

Sources: Dun & Bradstreet, Crain's New York Business, Mayor's Film Office

FIGURE 1
Large Establishments Dominate Motion Picture and Television Production in New York City



Source: Third quarter 1992 insured employment, New York State Department of Labor

New York City's Ranking in the United States

Nationally, the motion picture and television production industry employed 118,500 workers in 1992. California and New York State are the leaders in the motion picture and television production in terms of employment, payroll, and receipts. California alone accounts for close to 67 percent of U.S. employment in the industry, while New York State employs about 10 percent. None of the other regional production centers accounts for more than 3 percent of U.S. jobs in motion picture and television production.

In terms of payroll, California accounts for 71 percent of the total industry wages and salaries, while New York State accounts for 13 percent. Five of every six dollars earned in motion picture and television production in the United States are earned in either California or New York State.

Most of the production activity in California and New York is concentrated in Los Angeles and New York City, respectively. Eighty-five percent of production in California takes place in Los Angeles.[3] Similarly, New York City accounts for approximately 90 percent of New York State employment and payroll in the industry.

Three Canadian provinces are also major production centers in North America. According to numbers tracked by the Culture Statistics Programme at Statistics Canada, total resident employment in film, video, and audio-visual production in Canada was 15,627 for the year ending March 1992. Total compensation including salaries and wages, benefits, and freelancers' fees, was US$155.3 million.

Virtually all of employment and earnings were generated in establishments located in three provinces. Of the 15,600 total jobs, 8,800 were in Quebec, 2,800 in Ontario, and 2,800 in British Columbia. Employment in Quebec and British Columbia, however, are skewed towards part-time employees. In terms of total payroll, Ontario leads with US$61 million.

In a ranking of the North American production centers by size of employment and payroll, Ontario would come in fourth after California, New York, and Illinois. It is more difficult to tell where Quebec and British Columbia stand because their production payrolls are much smaller than the payroll of U.S. production centers with similar employment sizes. [See Appendix B for details on Canadian employment in 1991-1992.]

TABLE 3. Motion Picture and Television Production Employment and Payroll in the Top States in the United States, 1992

State	Employment	Payroll (Mil. $)
United States	118,485	5,913
California	78,831	4,222
New York	11,521	774
Illinois	3,448	124
Florida	2,020	70
Texas	1,903	60
Pennsylvania	1,248	46
Massachusetts	1,245	48
Georgia	1,206	36
Missouri	1,164	34
Ohio	1,163	32

Source: U.S. Dept. of Labor, Bureau of Labor Statistics

Direct Production Expenditures in New York City

When a film, television, or commercial is shot in a locality, the production activity results in income for resident directors, actors, writers, and technical crew. It also results in revenues for, among others, local hotels, scenery shops, caterers, equipment leasing firms, studio facilities, transport service providers, wardrobe and props rental businesses, and post-production services.

Direct expenditures related to production activity, i.e. purchases of local goods and services and amounts paid in wages and salaries, are substantial. For example, the most recent studio feature films shot in New York City spent on average $200,000 a day and employed 150 people during principal photography. An episode of the network television series *Law and Order*, shot for six days on location and two days in a studio in New York City, generates about $670,000 in direct spending in the local economy as well as 125 full-time and 25 part-time jobs.[4] Procter & Gamble Productions, which produces three soap operas in New York City, employs at least 450 people on any given day and about 700 full-time and part-time persons in a week. The shows generate more than $100 million a year in salaries, rentals, materials, and transportation.[5] A television commercial shot in a day generates an average of $1[illegible]00 in direct spending in New York City.[6]

According to the recently released 1993 study *The Arts as an Industry* by the Port Authority of New York and New Jersey, the direct expenditures related to the production of feature films, television, shows, commercials, and industrial films in the New York region added up to $1.44 billion in 1992. New York City accounts for 91 percent, or $1.31 billion, of this regional impact.[7]

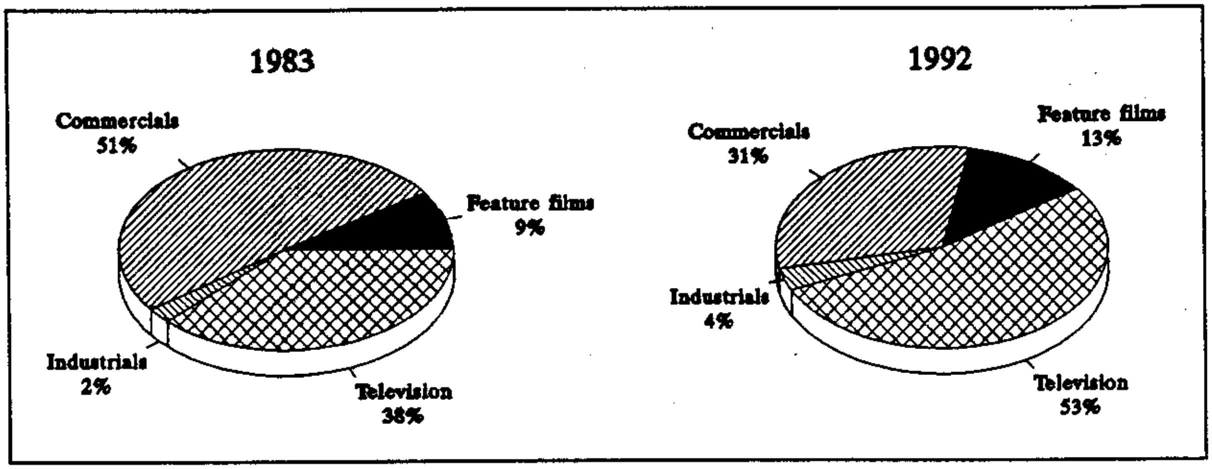
Production activity in New York City in 1992 was little changed from production levels in 1983, the earliest year for which comparable numbers could be estimated. A decline in the production of commercials since 1985 has offset much of the considerable growth in production in the other categories.

In 1992, commercial production expenditures amounted to $420 million, a drop of 40 percent from the 1983 level. However, all the other production segments posted real growth. Direct spending related to the production of movies, specials, and dramatic series programming for broadcast and cable television reached $711 million in 1992, a 36 percent rise in real terms since 1983. Feature films generated $168 million in 1992, up 22 percent from 1983. Industrial films, which are produced for in-house promotion or training uses and not intended for theatrical exhibition, generated $50 million in direct spending, an increase of 56 percent from 1983. [A comparison of 1992 production levels to those in the late 1980s, when peak production was achieved in the different segments, turns out to be less favorable. This is discussed further in Chapter II.]

Because the different production segments grew at different rates, the distribution of direct production expenditures has changed from 1983 to 1992. Television has replaced commercial production as the dominant production category in New York City as shown in Figure 2.

Post-production work which includes film editing, scoring, dubbing, and creation of special effects, sound track, titles and credits was not a major generator of economic impact in the local economy ten years ago. In 1982, the Port Authority found that much of the post-production work following principal photography in New York City was done in Los Angeles or London. In 1992, however, post-production expenditures in the local economy have become significant with the rise of local companies that serve a wider market than the region. The Port Authority estimates that such "export" post-production business generated over $94 million in 1992.[8]

FIGURE 2
Distribution of Direct Expenditures Among Production Segments in New York City



Source: Port Authority of New York and New Jersey, *The Arts as an Industry* October 1993.

Total Economic Impact of Production Activity in New York City

The direct spending related to production activity generates further spending in the local economy. Indirect spending occurs as suppliers to the motion picture and television industry purchase local goods and services and pay wages to resident workers in order to meet the industry's demand. Induced spending occurs when the workers in the motion picture and television industry and in supplying firms spend their income on local goods and services. An input-output model enables one to calculate the total spending generated by the initial round of direct spending related to film and television production activity.

Taking into account all the indirect and induced effects of production expenditures through the local economy, the Port Authority calculated that the total annual economic impact of film and television production in the metropolitan region in 1992 was $3.0 billion, an amount 2.11 times the direct expenditures.

The economic impact of a million dollars of direct spending in the motion picture and television production industry surpasses the economic impact of the same amount of spending in many other industries. In both the Port Authority input-output model and in the Regional Input-Output Modelling System (RIMS II) for New York City that EPM uses, motion picture and television production has one of the largest multipliers among over 500 industries considered in the models.[9]

New York City's Competitive Advantages

New York City offers distinct advantages to film and television production that would be hard to duplicate anywhere: the largest concentration of creative and cultural talent in the nation, a cosmopolitan lifestyle and a landscape that continue to inspire creative work and provide diverse and unique physical locations, and a large infrastructure that supplies high quality production and post-production services.

This combination of assets is expressed by the industry in different ways. For example, Capital Cities/ABC explains what New York City means to the company this way: "communications capital of the world...unequaled source of creative talent...our home for 40 years...cultural capital of the world...international crossroads...unsurpassed population diversity..."[10]

Industry people are quick to point out that the most important advantage New York City holds is its large concentration of artistic talent. In sheer size of the population of artists, New York City is unequaled. By the latest count, the New York metropolitan area is considered home by over 123,000 artists or 8.4 percent of all employed artists in the United States. New York City has the highest number of artists in eight out of 11 artist occupations, including authors, musicians/composers, photographers, and designers. It was edged out only by Los Angeles in the number of actors/directors and announcers.[11]

New York City is also without peer in the breadth and diversity of its arts and cultural institutions. *The Arts as an Industry* compares New York City with Los Angeles and Chicago, the other U.S. cities with large cultural establishments:

> "New York City has one-third more art museums than Los Angeles, and 60 percent more than Chicago...New York City has thirty-four professional theaters with budgets over $300,000, compared to nine in Chicago and four in Los Angeles...New York leads the nation in the number of symphony orchestras, performances and seating capacity, with more than twice as many orchestras and seats available as are available in Chicago and four times as many members of the Symphony Orchestra League as Los Angeles...New York's Metropolitan Opera is generally regarded as the premier opera company in the United States. In addition, New York is home to more than a dozen other opera companies, twice as many as Chicago, and nearly three times as many as Los Angeles..."[12]

The mix and concentration of artistic talent combines with New York City's vast cultural offerings to sustain the creative people who write new scripts, perform on stage and on screen, develop new sound and visual effects, and apply new techniques in photography. This is the greater community that nourishes the Spike Lees and Robert De Niros.

New York City, as a center of culture, offers a wide range of venues for film and television artists to showcase their talent. In different venues -- large and small, experimental and traditional, commercial and non-profit, formal productions and workshops, Broadway and community theater -- creative talent and craftspeople hone their skills. The quality of work they deliver is the key attraction for producers to film and tape in the city.

The standing of New York City as entertainment capital also represents the commitment of headquarters of the largest television networks, cable networks, and multimedia companies to the city. It has led to continuous investment in production facilities in the city. Moreover, the presence of entertainment headquarters here has provided a significant and stable market for the work of the local production and post-production community.

Another advantage for New York City in attracting production projects is simply the fact that many scripts for film and television continue to be written about New York City and the lifestyle of New Yorkers. No other city in the world has as many internationally recognizable attractions. No urban setting and lifestyle has seized the imagination and attention of the global audience as much as those of New York City.

In addition, the concentration in New York City of corporate headquarters, including the largest advertising agencies, has made the city the prime center of commercial production for television in North America for many years. Commercial production has been a significant source of employment and income stability for film and television artists and craftsmen in the city.

Rounding out a catalogue of New York's competitive advantages is the presence of internationally-renowned educational institutions such as the New York University Tisch School of the Arts. The school's film and television department and its interactive telecommunications program have trained some of the industry's brightest talents. The school continues to be a mecca for budding artists all over the world.

With the designation by the New York State Science and Technology Foundation of a Center of Advanced Technology in Digital Multimedia Production, Publishing, and Education at NYU, the university will be working closely with New York firms to speed up the development of commercial applications of multimedia technologies. This should strengthen the university's ability to supply talent adept in the emerging technologies to the motion picture and television industry, among others.

Finally, an emerging competitive strength in an increasingly integrated global economy is the diversity of population in New York City. Liz Nealon, executive producer of *Ghostwriter* for the Children's Television Workshop, found this a concrete asset of New York City when searching for children of various racial origins to appear in a television episode. The national search for child actors and actresses turned up several children, all from New York City.[13] As producers of film and television expand internationally and appeal increasingly to a global audience, New York City's multicultural talent pool should become a stronger magnet for production.

II. New York City's Declining Share of U.S. Production Employment

Production in New York City of feature films, television movies, specials, and dramatic series, as well as industrial films is significantly higher than a decade ago. There are indications, however, that New York City has lost market share to other production centers in the United States over the past decade. One manifestation of this loss in share is the decline in 1992 production spending in each of the production categories, compared to the most recent peak production levels.

In 1992, film production dropped for the second straight year, television production remained slow, and commercial production fell for the seventh year in a row in New York City. Pessimism settled upon industry members. The pervasive feeling then was that the local industry was on a course of irreversible decline. Since this study was started, however, feature film production has begun to rebound. Interest in producing in New York City has started to pick up, in part due to a number of industry initiatives and the Film Office's aggressive outreach and marketing campaign in 1993. A brighter outlook is now perceptible among industry members.

Nevertheless, a review of how much ground has been lost to other production centers and an analysis of the factors that led to New York City's declining market share are essential in identifying areas where targeted City support may be most effective in helping the industry recover its strength. This chapter analyzes the decade-long trends in the employment shares of the major U.S. production centers, indicating a slippage in New York City's share of total industry employment. It then presents the trends in production spending in each segment in New York City in the last five years. The chapter closes with a discussion of factors that contributed to the recent slowdown.

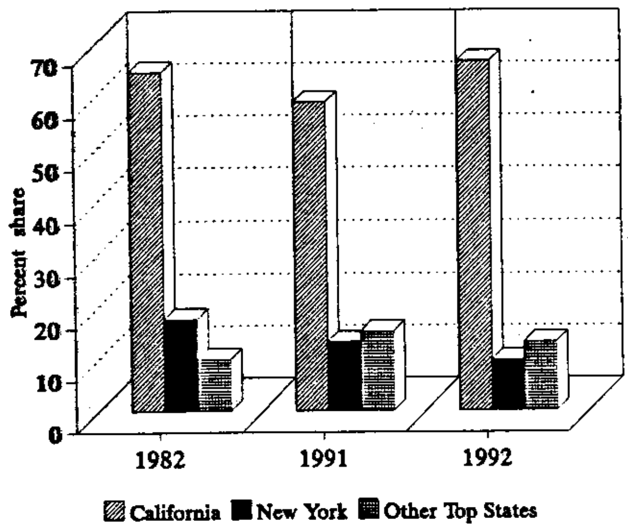
Diffusion of Production Activity in North America

Employment in motion picture and television production rose by 44,000 jobs between 1982 and 1992 in the United States and almost every state shared in that growth. The only major production center that showed a decline was New York, where jobs fell by 1,700; all of the loss occurred in 1992. Consequently, New York's share of industry employment fell from 17.6 percent in 1982 to 9.7 percent in 1992 as shown in Figure 3.

California's share had also been declining until the state's industry employment soared in 1992. Between 1982 and 1991, California's employment in the motion picture and television industry grew slower than the national growth rate. Its share of industry employment fell from 64.5 percent in 1982 to 58.8 percent in 1991, before recovering to 66.5 percent in the past year.

Between 1982 and 1992, the second-tier states' combined shares of U.S. employment in motion picture and television production increased from 9.9 percent to 13.2 percent. [For the employment shares of each of the top production centers (those with at least 1 percent of U.S. industry employment) and the annual growth of employment and payroll between 1982 and 1992 for these states, see Appendix C.]

FIGURE 3
Shares of U.S. Motion Picture and Television Industry Employment



The other top states are Illinois, Florida, Texas, Pennsylvania, Massachusetts, Georgia, Missouri, Ohio, Michigan, and New Jersey.
Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

The nascent production centers offered a low-cost environment for producers, particularly for those working with low budgets. The rise of cable television and the growth of independent productions specializing in low-budget features fueled the trend towards production outside Los Angeles and New York City. Cable television producers, working with much smaller budgets than network television or studio feature films, found that they could meet both the creative requirements and the budgets in non-union states, or areas where unions agreed to concessions and work rule changes to accommodate low-budget productions.

In addition, Canada and states such as Florida, North Carolina, and Texas, aggressively courted production companies in California and New York with an array of promotional programs and monetary incentives. This competition continues to escalate. As states move beyond serving merely as sites for production location work, they have begun major initiatives to build up their local film and television industry. Canada, bent on supporting its national industry, has developed an array of financing programs for Canadian-based productions. The programs that states, provinces, and cities in North America use to boost production activity in their areas are discussed further in Chapter III.

Indicators of the Recent Slowdown

The gradual shift of production to other North American centers manifested itself strongly in New York City in the recent slowdown in production activity. Table 4 illustrates the decline of production activity in New York City from the most recent production peak achieved in each category to 1992.

Feature film production in the city grew vigorously until 1990 and then fell sharply in the succeeding two years. From 1989 to 1992, television production has hovered at a level moderately below the 1987 peak. Commercial production has been on a steep and steady slide since its peak in 1985.

TABLE 4. Recent Trends in Real Production Expenditures in New York

Production Category	1992 Production Expenditures (Mil. 1992$)	Expenditures in Most Recent Peak Year (Mil. 1992$)		Percent Change from Peak to 1992
Television	711	780	*(1987)*	-9%
Commercials	420	717	*(1985)*	-41%
Feature Films	168	224	*(1990)*	-25%
Industrial Films	50	69	*(1987)*	-27%
Post-production	95	n.a.		n.a.
Total	1,444	1,600	*(1987)*	-10%

Source: Port Authority of New York & New Jersey, *The Arts as an Industry* October 1993.

The Mayor's Film Office has seen these declines reflected in the diminishing number of permits issued for location filming in New York City. From a high of 144 in 1990, permits for feature film production slid to 125 in 1991 and then dropped further to 96 in 1992. The number of permits for television shows, specials, and movies grew steadily in the 1980s, reached a peak at 672 in 1990, and has since fallen to 428 in 1992.

In the music video and documentary categories, permits have decreased from the highest points reached in 1989. Even permits issued for still photography and miscellaneous production have declined from the peaks in 1990. Only permits for commercials and industrials, which were counted in one category until recently, show an earlier peak. From a high of over 2,000 in 1986 and 1987, permits for commercials and industrials have gone down steadily to 1,491 in the past year.

As one might expect, depressed production activity led to losses in employment in the industry. Jobs in motion picture and television production in New York City fell 14 percent, from 11,500 in 1991 to 9,900 in 1992.

The Directors Guild of America (DGA) gives concrete examples of job loss. Average commercial work days for assistant directors in New York City reported to the DGA fell from a high of over 140 days in 1990 to roughly 85 days in 1992. In addition, the number of feature films that employed New York City DGA assistant directors locally in 1992 was just one-third the number recorded in 1989; at the same time, DGA assistant directors have found more feature film projects to work on outside New York City since 1990.[14] Like the directors, other people in the industry from actors to designers responded to New York's production decline by seeking employment opportunities in other production centers in the East Coast.[15]

The relocation of some talent was not the only outcome of the slowdown in production. The decline in production contributed to the loss of three major film processing laboratories, the shrinkage in inventory of rental equipment in the city, and lost business for other suppliers, particularly camera rental companies and caterers. Hence, employment in services allied to motion picture and television production in New York City also tumbled from 3,600 in 1990 to 3,000 in 1992.

Other Factors Leading to the Recent Decline

As discussed above, the recent slowdown is partly a manifestation of the gradual shift of production to other areas in North America, giving rise to new production centers in the past decade. With low production costs and promotional campaigns directed at production companies in New York and Los Angeles, the emerging production centers drew business away from New York City. Another factor that affected all production in New York City was the increased resistance among producers to work in the city because of higher production costs and actual and perceived difficulties of producing here. (The issue of New York City's cost disadvantage is examined further in the next section.)

Compounding the problems for feature film production in New York was the boycott of New York City by major film studios from November 199C through May 1991 when the studios and the International Alliance of Theatrical and Stage Employees (IATSE) unions failed to resolve contract disagreements. The eventual resolution was made possible by union concessions on overtime wages in exchange for better health and pension benefits.

The boycott came on the heels of a slowdown in film starts all over the United States and almost coincided with the start of the national recession. After achieving a decade-high 383 film starts in 1988, the number dropped to 314 in 1989 and 301 in 1990. According to statistics tracked by the California Film Commission, most production centers including the top states -- New York, California, and Florida -- suffered decreases in feature film productions during this period.[16] Subsequently, the contraction in available financing at the start of the 1990-1991 recession caused three of the major studios to temporarily cease feature film production.[17] The combined negative effects of the cyclical and city-specific influences lingered through 1992 in New York City.

A full examination of the causes of the steady slide in commercial production in New York City since the mid-1980s is beyond the scope of this study. News reports, some statistics, and anecdotal evidence point to developments already cited earlier as contributing factors. Competition from Los Angeles and other production centers has won business away from New York City, once the clear leader in commercial production.[18] The boycott in 1990, while directed only at unions in films, eventually affected commercial production. For industry insiders, it reinforced New York City's reputation as a difficult place for production and enhanced Los Angeles' increasingly favorable standing as commercial production location.[19]

Cost Disadvantages of Producing in New York City

As mentioned above, some of the slide in New York City production activity is due to developments similar to those that beset Los Angeles in the early 1980s: a perception that it is difficult to do business here, compounding the problem of higher production costs.[20]

In several interviews done for this study, the higher cost of production was most often cited as the reason why production has declined in New York City. While a definitive comparison of production costs is beyond the scope of this study, there are indications of where New York City's cost disadvantages exist.

Since labor costs can account for more than half of the total project costs, non-union states and areas where unions have standardized agreements for low-budget productions have an edge over New York City. In Los Angeles, still New York City's main competitor, non-union crews are able to work on production projects. In Toronto and Vancouver, there is more than one union representing technical/crew categories, allowing competition to drive bargaining arrangements. Many of the guilds and unions in Canada have also evolved low-budget agreements to stimulate production.

In 1990, the East Coast Council of the International Alliance of Theatrical and Stage Employees (IATSE) became the first coalition of unions to negotiate low-budget agreements, based on a partial deferment of wages, with producers whose budgets range from $1 million to $7 million. The East Coast Council simplifies the negotiations by representing all the craft unions in the below-the-line departments: electric, grip, camera, hair, make-up, property, editorial, sound, set decorations, set construction, etc.

Quantifying the labor cost differential between New York City and competing locations is complicated by the increasing reliance on negotiated, project-specific labor rates and work rules. Moreover, there is general reluctance among producers and unions to disclose production cost or earnings data. In cases where Hollywood studios control the estimating process, there are no comparative data at all.

Nevertheless, to get an idea of labor costs in New York City and other production centers, EPM examined labor costs for five different union job titles in New York City, Los Angeles, and Canada using rates published in the 1993 *Paymaster Guide*, an industry publication which summarizes industry rates, terms, and conditions from the latest union and guild negotiations. In addition, non-union rates for a current production in Portland were gathered. (According to the Mayor's Film Office, the Portland rates are typical of other non-union rates paid in the U.S.) Findings confirm the anecdotal evidence from producers: New York City has a modest cost premium vis-a-vis Los Angeles and a wider cost disadvantage relative to Canada and other areas in the United States. When pension, health, and welfare benefits were added to the wages, New York City's cost disadvantage versus Los Angeles and Canada became larger. [The results of EPM's cost comparisons are in Appendix D.]

Hotel expenditures are another major expense, especially for producers who bring actors, writers, and other talent into town. The state's five percent occupancy tax on hotel rooms costing more than $100 adds to New York City's cost disadvantage compared to other locations. The city's hotel cost premium widens even more vis-a-vis cities and states that give hotel tax rebates to film and television producers. Per-diem expenses of out-of-towners involved in production are also significantly higher in New York City than in competing locations.

The relatively higher rates of production and post-production services in the city reflect the high overhead costs in Manhattan where most of these firms are located.

In addition, while filming here on location, producers use production offices in Manhattan typically for a period of six months. Due to their location requirements and short duration of stay, producers must often pay a premium for office space. In contrast, Los Angeles has a plethora of production office space geared to the needs of the industry, and a number of regional production centers have hotels that offer free space to producers in exchange for renting a minimum number of rooms.

Hints of a Recovery in Production Activity

There are signs that the tide of unfavorable opinion about New York City is being turned back. Recent initiatives by local industry members, particularly the unions, and the Mayor's Film Office are quickly changing the working environment for film and television production in New York City. These initiatives are described in detail in Chapter IV.

However, further steps must be taken to ensure that the recent revitalization efforts lead to long-term growth. The motion picture and television production industry in New York City needs to attract more production in order to reverse the slippage in its share of U.S. industry employment and payroll. Chapters V through VII will examine initiatives through which the City can draw more film and television production projects.

III. Film Industry Development Programs in Other Production Centers

New York City's main competition -- California, on one hand, and the other U.S. and Canadian eastern states and provinces, on the other -- pose different sets of challenges. Los Angeles and New York City are more similar than any of the other production centers: both have been major production centers for years; they are the largest metropolitan areas in the U.S.; they have big artist populations and numerous cultural establishments; both are sites of the headquarters of major production, entertainment, and media companies; and both have prestigious educational institutions that serve the industry. In many production projects, particularly in feature film production, Los Angeles and New York compete on talent and quality of resources rather than cost.

The other states, on the other hand, have just recently emerged as production centers. They had been able to sway production away from Los Angeles and New York primarily because of low production costs and continue to compete on this basis even as they develop and deepen their production and post-production infrastructures.

This chapter presents the findings of EPM's survey of programs run by the major competitor states, provinces, and cities to promote film and television production in their locale. EPM's survey is supplemented with material from similar surveys done earlier by the National Association of State Development Agencies and the California Film Commission.[21,22]

California's Programs and Activities

In order to retain and attract production, the California Film Commission provides top rate services such as permit issuance, location assistance, development of location photo library, 24-hour availability to the production community for troubleshooting, and legislative and issue support. By serving as statewide liaison with county film commissions, it solved complications encountered by producers who had to deal with separate counties and cities having different policies and filming rules in the early 1980s.

The Commission has an extensive set of programs designed to increase awareness of the economic benefits of production and to generate cooperation among local residents who sometimes feel besieged by the volume of production and disruptions that go on regularly in their neighborhoods. The California Film Commission provides economic reports about the film and television industry, assistance to municipalities in developing filming policies, and special services to solve unusual problems associated with location filming. It has published instructional guides such as *The Location Scouting Handbook*, *Your Property in a Starring Role* (a step-by-step guide for the property owner about filming), *Attracting Film Production* (a guidebook for communities), *Filming in Your Community* (an explanation of the economic impact of filming), and *Law Enforcement Guidelines* (a tool for local law enforcement officials in devising filming guidelines).

The California Film Commission has an annual operating budget of $830,000 and a staff of 9 persons. Its marketing budget of $100,000 is used in a cooperative plan by municipalities to market themselves to the production industry. County and city film offices often have their own marketing budgets. San Diego's annual marketing budget, the largest in the state, is about $100,000.

Programs and Activities of Other Production Centers

Having recognized that location filming can generate significant economic impact, many state and local governments in the U.S. and abroad created film offices or commissions under the aegis of economic development agencies. Membership in the Association of Film Commissioners International grew from 60 in 1980 to over 235 currently.

There is a set of activities that virtually all the state and provincial film commissions undertake in order to promote their area: participation in trade shows (such as Show Biz Expo, Location Expo), advertising in trade publications, and direct mailing to target production companies all over the U.S. What distinguishes some areas from the others are the promotional programs that those with larger marketing budgets are able to develop. For example, Alabama, Alaska, Arizona, and North Carolina each have at least $100,000 in their marketing budgets. Cities like Toronto and Montreal spend at least $75,000 each year on marketing.[23] The funds enable these film offices to conduct trips to Los Angeles for direct contacts with production executives or to develop an array of promotional materials (eg., full-color brochures, production guides, directory of local services and vendors, or location video/photo library).

A second group of programs provides sales tax or hotel tax rebates to production companies on the condition that some minimum expenditure or time is spent in the city or state. Such incentives encourage companies to complete a larger percentage of the production project in an area. Seven U.S. states (Arizona, Florida, Kentucky, Louisiana, New York, North Carolina, and Texas) provide sales tax rebates on selected production-related expenses in the state. Five states (Iowa, Kansas, Maine, Missouri, and Tennessee) offer hotel tax rebates if the production people stay for at least one month. Appendix E gives details on these tax incentive programs.

The third set of incentives includes efforts by film offices to spur their states, municipalities, or provinces to become more than just sites for location filming. Canada and a few states, notably Florida, Arkansas, and North Dakota, have designed programs meant to develop their resident labor, facilities, and production services infrastructure. An expansion of the local talent and film production resource base enables the area to capture greater portions of production projects' economic impact locally and build market share in the industry.

Florida's strategy is a multi-pronged approach. For example, in 1991 the Governor of Florida took several Florida bank executives to Los Angeles for meetings with several leading California banks to expose Florida banks to the ins and outs of production investment.[24] The state has included a film production curriculum in its community college system to address the growing demand for trained personnel.[25] The film offices in Florida customize a location video or still portfolio within 48 hours for producers scouting locations.

Florida is currently organizing funding for a Film and Television Investment Fund. If at least 40 percent of a project's production project is spent in the state, the Fund will invest or loan funds for the advertising and marketing portion of the film or television production budget up to a maximum of $3 million. In addition, the state is looking into forming a public/private, not-for-profit organization to handle marketing for the state.

Canada's strategy is to provide incentives to productions that meet Canadian content requirements because it wants to support the indigenous film and television production as well as the indigenous distribution industry. The requirements, in brief, are: (1) all producers must be Canadian citizens; (2) the production must earn a minimum of six points based on key people qualifying as Canadian (for example, director gets 2 points, screenwriter 2 points, highest paid actor 1 point, etc.); and (3) at least 75 percent of certain production costs and post-production costs must be paid to Canadians. Co-ventures or co-productions of Canadian companies and non-Canadian companies may qualify under additional conditions. By satisfying Canadian-content rules, American film and television productions have been able to avail of Canadian incentives.

The certification of a production project as Canadian makes it eligible for a wide range of public funding programs at the national, provincial, and city levels. For example, Telefilm Canada, a public corporation, invests in high Canadian content feature film and television productions in the form of equity investment, secured loans, or non-interest bearing advances. Telefilm's programs and funding are the *Feature Film Fund* (C$24.5 million), *Feature Film Distribution Fund* (C$13 million), *Canadian Broadcast Program Development Fund* (C$65 million in 1993-94), *Interim Financing Fund* (C$7 million), *Versioning Assistance Fund* to provide French/English language versions of Canadian or foreign films (C$6 million), and *Canadian Production Marketing Assistance Fund* (C$3.7 million).

There are other incentive programs in the Canadian provinces. For example, the Ontario Film Development Corporation, an agency of the provincial government, runs an industrial program called Ontario Film Investment Program (OFIP). The OFIP provides cash rebates ranging from 15 to 25 percent of an Ontario investor's investment in high level Canadian-content film or television production that is independently produced in the province and distributed domestically by Ontario distributors. The program has an annual fund of C$14 million.

Ontario has a non-theatrical film fund (C$640,000 annually) that provides non-equity grants up to a maximum of C$30,000 per project for production, C$6,000 for development, and C$5,000 for marketing, and C$5,000 for French versioning. It aims to increase the number of non-theatrical productions that "provide and original Canadian viewpoint and a unique approach to their subject matter, while demonstrating an educational value."[26] Ontario's array of incentives also includes a loan program for screenplay development and grants of up to C$20,000 each in a Racial Equity Fund for minority productions.

An emerging form of state support for the local film and television industry is investment in studio facilities. Florida and North Carolina had been able to capture more than the "location- type production", and hence bigger chunks of production budgets, by having facilities where in-studio and post-production work could also be done. Driven by the same goals, the

Hawaii legislature approved the use of $10 million for the construction of a permanent film facility by improving the existing studio at Diamond Head where *Hawaii Five-O*, *Magnum P.I.*, and *Jake and the Fatman* were shot. Pennsylvania plans to build a state-of-the-art sound stage on 8 acres of land just outside of Pittsburgh.

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IV. A Turning Point for the Local Industry in 1993

There are encouraging signs that the film and television production industry in New York City is recovering strength. In the first ten months of 1993, the Mayor's Film Office issued 113 permits for feature film production, up 30 percent from the same period in 1992. Shooting days for feature film projects totalled 1,436, or 38 percent more than the number attained in the first ten months of 1992.

More importantly, an increasing percentage of recent permits issued for feature films are for productions of the eight biggest studios in Hollywood. This development means that the production expenditures being generated this year are more substantial than the spending in recent years. The average cost of the studio films produced in New York City in 1993 is $25 million, or 10 times larger than the cost of independent features produced in the boycott years of 1990 and 1991. Local production spending of feature film projects has been averaging $200,000 per day in 1993.

In addition, employment in film and television production and allied services began to turn up in August 1993, based on preliminary data from the New York State Department of Labor.

The Industry's Initiatives

In 1990 the East Coast Council of the International Association of Television and Stage Employees (IATSE) set a precedent by fashioning low-budget wage agreements based upon a deferral of a portion of wages. The agreements allowed film producers with less than $7 million to film with a union crew in New York City. Its efforts are widely recognized as having made New York City more competitive with the growing regional centers.[27] Between 1990 and 1992, the East Coast Council assisted more than 30 feature films, network television and cable television projects.

Other guilds and unions have cooperated on some productions. For example, in order to induce MGM to film *Six Degrees of Separation* in New York instead of Toronto, the Theatrical Teamsters, Screen Actors Guild, and the IATSE craft unions made significant contractual concessions that enabled the studio to meet its budget requirements.

New York City production and post-production businesses and unions concerned about the state of the local film and television industry formed a partnership with non-profit institutions like the Association for a Better New York and the public sector to expand the City's and State's marketing efforts. The partnership, called Production New York (PRO-New York), marshals resources from local industries also affected by production activity in the city such as the vendors, hotels, and banks. The group has launched a number of initiatives described below.

In addition, the Directors Guild, Screen Actors Guild, the Writers East Guild, and American Federation of Television and Radio Artists (AFTRA) have been actively proposing ways to promote production in the city and have volunteered resources. Many prominent individuals in the industry have also rallied behind the Film Office's recent initiatives.

Local Government Role

The Mayor's Office of Film, Theatre, and Broadcasting, the City's advocate for the industry, has been widely praised for its contribution in attracting production to the city. Since elevation to Commission status in the fall of 1992, the Film Office has taken an even more aggressive stance to win business for New York City. With a new Commissioner drawn from the industry, a budget twice as large, and expanded staff, the Film Office has represented the City in several trade shows and film festivals, met with studio and production executives in Los Angeles, took the Mayor to Los Angeles to meet with studio executives, and quickly evolved into a more responsive service agency to the industry. In a span of less than a year, the efforts of the Mayor's Film Office have resulted in the initiatives described below.

Promotions and Marketing

- PROduction New York (PRO-NY) has begun to raise $100,000 of private sector contributions to finance a marketing effort parallel to that of Film Office. PRO-NY's marketing campaign will use the tag line ***RELAX. You're in New York***.

- Publication of a newsletter that contains lively coverage of current New York City production deals and developments. The newsletter is widely distributed, at no charge, to leading executives at studios and production companies in New York, Los Angeles, and Europe.

- Expansion of the annual City-sponsored Film Week held in June. In 1993, the week kicked off with a salute to members of the production community at the 10th annual Mayoral party in Gracie Mansion at which the Mayor presented five Crystal Apple Awards. Later that week, the members of the IATSE unions, in conjunction with the Film Office, held a street fair outside the Tribeca Film Center. Posters for the 1993 Film Week, designed pro-bono by McCann-Erickson, were placed in 95 percent of the metropolitan theaters and marquees.

Outreach

- Panel discussions and meetings with producers at film festivals and trade shows. Since January 1, 1993, the Film Commissioner and Deputy Commissioner have attended Location Expo East, Show Biz Expo West, the Cannes Film Festival, the Berlin Film Festival, and the Sundance Film Festival. Regular attendance at these and other trade show and festival events is planned.

- More intensive outreach program to numerous Los Angeles studios and production companies. The Commissioner and the Deputy Commissioner have "pitched" the "new" New York to many production executives in recent months.

- Mayoral visits to the leading officers of MCA/Universal and Warner Brothers in Los Angeles in July 1993. It was a move widely perceived as a signal of the importance that the Mayor put on the film and television production industry in New York City.

- Attendance at rank and file meetings of the city's production labor organizations and various trade and technical organizations, to keep them abreast of Film Office efforts.

Vendor and Hotel Discounts

- A vendor discount program that is available to producers that sign an East Coast Council agreement. Under the program, vendors offer their goods and services at discounted prices to low-budget producers.

- Hotel discount program open to all entertainment companies. The participating hotels offer significant discounts, based on the number of rooms and the length of stay, to help entice productions to work in the city.

Other Initiatives

- Coordination with New York City institutions managing the most sought-after city attractions in order to make these more user friendly and less expensive for producers to use as locations. For example, recent discussions initiated by the Film Office with the Central Park Conservancy have resulted in a two-month trial of a new lower fee structure than the current $10,000 daily charge for filming on park grounds. The Metropolitan Transit Authority and the Film Office have also worked on a scheme to promote production in and around the subway system. One concrete outcome of their cooperation is the publication of *Moving Imagery*, the New York City Transit Authority's film and television production guide.

- The institution of a management information system, including the computerization of the permitting process, in cooperation with the City's Computer and Data Communications Services Agency. The new system will allow the Film Office to track important indicators of production activity in New York City and to respond to the public with information, on demand via a *Fax back* system, 24 hours a day.

  In addition, the Film Office will be installing a geographic information system, a computer software that maps production-related information onto a New York City street map. With the new system, the Film Office will be able to track the location of every permitted production in the City. This will prevent two production entities from obtaining permits to film at or near the same location. The database will also provide historical location data so that the Film Office can track over-utilized neighborhoods and give them a "rest" from production activity.

- Dedication of a city-owned vehicle for use in the Film Office's outreach efforts beginning late 1993. The Film Office has used the vehicle to visit some twenty to thirty production sets on a weekly basis, and to visit the local production companies on a regular schedule.

Looking Ahead

In the 1980s, the phenomenal growth of new media sources - videocassette, cable, and pay-per-view sales - fueled significant increases in the motion picture and television production industry's revenues. Licensing of films for use in these ancillary markets began to surpass revenues from domestic theatrical release, the traditional core business, in 1988.

By the end of the 1980s, movie theater admissions nationwide appeared to have stabilized at the one billion mark, the videocassette home viewing market had become a mature industry, and the growth in cable subscriber revenues had started to slow down. In 1992, industry revenues on a nationwide basis included $4.2 billion from domestic home video rentals, $2.1 billion from domestic movie theaters, $1.4 billion from domestic television (pay TV, pay-per-view, and theatrical sales to the syndication market) and $370 million from other smaller domestic markets (videodisc sales, sales to military institutions, colleges, universities, and airlines). In addition, $5.5 billion in revenues were generated from theatrical exhibition, television, home video, and pay television in foreign markets.[28,29]

On the horizon are technological and industry developments that present new opportunities for growth in demand for filmed and taped entertainment: an increase in the number of viewing channels via cable and the advent of "movies on demand" broadcast to homes via satellite; an expansion of the market for interactive, multimedia products; growth in foreign demand for programs as cable and satellite systems are installed in Asia and Latin America and videocassette recorder (VCR) and cable penetration increase in Western Europe.

In the immediate future, the outlook on volume and total value of new production is less certain. In the face of technological advances, among the questions currently inhibiting bold maneuvers to immediately increase the production of filmed and taped entertainment are: how fast pay-per-view or video-on-demand can grow into a major ancillary market; what types of interactive products consumers would like; how much they would be willing to pay for these products; how the increase in distribution alternatives would affect cost structures for programming and production; and how much progress can be made in foreign home viewing, cable, and pay television markets.

V. Growth Opportunities in Cable Television

With cable penetration of U.S. television households growing from 23 percent in 1980 to 62 percent in 1992, the cable and pay television market has become a major buyer of product from the motion picture and television production industry. Cable systems' programming expenditures (license fees paid to basic and premium cable networks, copyright fees, and local origination) more than doubled in 8 years, from $1.7 billion in 1984 to $3.8 billion in 1992.

Viewing shares of basic cable networks and pay cable services have also more than doubled, rising from 14 percent in broadcast year 1983/1984 to 30 percent in 1991/1992. Meanwhile, broadcast networks' viewing shares declined from 69 percent to 54 percent. Between 1984 and 1992, consumer spending on basic cable and pay television rose from $2.5 billion to $21.5 billion. Even cable's advertising revenues have soared, from $58 million to $3.4 billion during the same period.[30]

Cable Television in New York City

Of the top 20 cable networks ranked by number of subscribers, six are headquartered in New York City: USA Network, Nickelodeon/Nick at Nite, MTV Music Television, Lifetime Television, Arts & Entertainment Network (A&E), and VH1 (Video Hits One). Close behind New York City is Atlanta, with five cable network headquarters. [Table 1 in Appendix F lists the headquarters location of the top 20 basic cable networks.]

New York City is the site of the headquarters of Home Box Office (HBO), the first and largest premium cable program supplier in the United States. HBO is joined by Showtime, the Movie Channel, Cinemax, TV-Japan, and Flix. [The eight premium cable networks based in New York City and their programming are in Table 2, Appendix F.]

The New York City-based cable networks are affiliated with diversified entertainment giants based in the city. Viacom International, the U.S. leader in cable programming, owns the MTV Networks (Nickelodeon, MTV, and VH1) and Showtime Networks (Showtime, the Movie Channel, and Flix). USA Network is co-owned by Paramount Communications and MCA. Roughly one-third of both A&E and Lifetime Television are owned by Capital Cities/ABC. HBO and Cinemax belong to the Time-Warner group of companies.[31]

The corporate headquarters presence alone of these major cable programmers generates thousands of jobs in the city. For example, Viacom employs 2,500 people in New York City. HBO has 1,000 employees at its headquarters. The employees at cable networks affiliated with Capital Cities/ABC number almost a thousand: 400 at Lifetime, 400 at A&E network, and 90 at ESPN.[32]

Extent of Cable Production in New York City

The type of programming offered by a cable network determines the extent of its involvement in original production. The premium cable networks that primarily show licensed features, original-made-for-television movies, and miniseries are likely to acquire rather than produce these programs themselves. Showtime Channel, for example, purchases 85 percent of its total programming.[33] HBO acquires 70 percent of its programming.[34] USA Network buys about 80 percent of its programming from outside suppliers.[35]

The majority of these programs are supplied by major Hollywood studios and independent production and distribution companies. Cable program wholesalers such as HBO usually commit funds to license in advance a full slate of a studio's or production outfit's output.[36] The revenues derived by studios and independent feature film producers from pay television have jumped from $120 million in 1980 to $770 million in the past year.[37] (These practices are slowly changing, however, and the trend may not continue. HBO, for example, is increasingly turning to nontheatrical sources for programming.)

Of the original programming produced by cable networks, shows filmed or taped in New York City include specials, sports coverage, family entertainment, documentaries, comedy shows, music videos, and talk shows. Also produced in New York City are interstitial shows and promotional shows. Interstitial shows are short programs shown between regularly scheduled programs and developed along the same themes, while promotional programs are developed by the network to advertise scheduled shows.

Cable productions in the city are shot on location and in studios. HBO owns a very busy studio and post-production facility on East 23rd Street. Lifetime has state-of-the-art studios and a post-production center containing on-air rooms, editing suites, and a tape library in the Kaufman Astoria Complex in Queens. Unitel Video built its studio, post-production, and mobile production business from cable television productions in the city.[38] Among the cable shows produced in its studios are the *Jane Whitney* and *Ricki Lake* talk shows. USA Network, MTV, and HBO take full advantage of filming on the streets of New York City for a variety of shows. Cable productions related to special events such as concerts or comedy shows make use of indoor and outdoor performing spaces in the city.

The production expenditures generated by these cable productions range from as little as $1,000 or $5,000 per show to millions of dollars for the coverage of special events such as the *Grammy Awards Night*, the *U.S. Tennis Open*, and *Comic Relief*.

The original productions rarely done in New York City are the bigger-budget cable shows such as movies-of-the-week ($2-5 million per movie) and series programming ($250,000 per episode, or roughly $3 million for a season of 13 episodes). Production executives in charge of these cable programs also tend to be located in Los Angeles, even among cable networks headquartered in New York City.

Given the generally low budgets for cable television shows, this industry segment is more sensitive than feature film or broadcast television production to cost differentials between New York City and other locations. Within the cable television segment, the bigger-budget original cable productions (such as movies-of-the-week or dramatic series) as well as the productions contracted out to studios and independent production companies are more footloose than others.

To the extent that the bigger-budget cable productions can shoot in studios, production projects tend to be shot in Los Angeles where large and modern studios and sound stages are more plentiful than in New York City. In addition, there is easy access to post-production facilities in Los Angeles and many of the independent production companies are based there.

Production companies that have their own studios also prefer shooting in their own facilities. Studio and network programming executives based in Los Angeles or Florida prefer the greater oversight possible with locally-based productions. Cost containment has made studios reluctant to spend "hard dollars" for location shooting when they have office space, backlots, stages, and equipment that can be used instead.[39]

When the script calls for location shooting, the first choice is to produce in the "true" setting. If budgets cannot be met there, the next choice is to go where the desired settings can be reconstructed and overall costs can be controlled. The higher production costs in New York City often preclude shooting here even when scripts have called for a New York setting. Some productions compromise by shooting "establishing shots" in New York City and then complete most of the principal photography elsewhere. (The "Guide 93", a promotional brochure published by the Canadian Film and Television Production Association, claims that "over a hundred feature films, television movies, and network series requiring a New York look have been filmed in Toronto over the years." Carolco Studios in North Carolina advertises the availability of a "New York street backlot with 4 interiors" in its studio complex.)

In Pursuit of a Larger Market Share in Cable Production

Compared to the production expenditures of an average broadcast television show, cable production budgets are much lower. An hour-long television series on network television may cost $600,000 to $1 million an episode to produce; a one-hour episode for a cable television series may cost between $200,000 to $400,000. However, the production volume makes cable television a sizeable segment. With about 150 movies-of-the-week made for basic cable, pay cable, and the networks every year, total production expenditures in the movie-of-the-week segment alone could be $450 million. The overall volume of cable production work lends a good measure of stability to the employment of creative and technical professionals in the industry.

Aside from the employment stability that additional cable production in the city can bring to the industry, demand for original cable television programming is expected to continue to grow modestly in the near-term and more dramatically towards the end of the decade. To put the local industry in a better position to participate in the future growth, the City should help the industry increase its negligible share in the bigger-budget original cable production segment.

In the near-term, several developments are expected to fuel modest growth in original cable productions. First, cable programmers are responding to market research showing that cable and pay TV subscribers would like to see more original programming and first-run syndicated shows. Showtime, for instance, expects to increase the number of movies-of-the-week it will produce from 20 to 30 a year within the next three years.[40]

Second, new cable programmers continue to come on line. The National Cable Television Association reports that 18 new video services will be offered between July 1993 and the first quarter of 1995. Of these, six intend to feature original productions consistent with the thrust of their overall programming.[41]

Third, some cable networks are beginning to increase original production to build a library of assets that will generate a future stream of revenue.[42] In the 500-channel television universe of the future, the need for additional programming will be filled partially by second runs of shows from the studios' and networks' libraries of proven hits.

Technological developments that will be discussed in depth in the next chapter are expected to provide impetus for dramatic growth in demand for filmed and taped entertainment towards the end of this decade. For cable television, the new applications may boost the pay-per-view segment into a significant source of new revenues and major generator of demand for original programming.

Recommendations for Government Action

New York City should endeavor to gain a firmer foothold in the cable television market and position itself for future growth. The experience of several bigger-budget cable television productions such as *Daybreak* and *Strapped*, both HBO movies produced in New York City, points to the economic viability of producing these types of shows here.

The recommended strategy would involve using a small amount of City resources to leverage additional production activity in New York City, to enable the production community to gain successful experience in the low-budget categories in New York City. The recommendations are:

(i) The Film Office would work with the Economic Development Corporation (EDC) and EPM in re-shaping approved City financing programs to serve producers with feature film or television contracts. The Film Office would also work with private sector lenders to discuss other innovative ways of expanding the pool of resources for the financing program.

The financing program will provide film and television producers low-cost financing or investment in return for a minimum amount of principal photography or production expenditures in New York City. The minimum New York content requirement ensures that the local economy does capture a far greater amount than what it would cost the City to provide the incentive.

One option that could be explored is the inclusion of film and television production companies among the intended beneficiaries of the Jobs Growth Venture Fund, a fund that is being set up by the City to provide equity capital for small and mid-sized firms that derive a competitive advantage from a New York City location.

(ii) The Film Office would encourage the development of a privately-run Production Office Center located in Manhattan, and develop incentives to enable the Center to offer low-cost office space to producers, particularly those based out of town.

(iii) The Film Office would continue to encourage and facilitate union and production cooperation in the development of standard labor contracts, modelled after IATSE agreements, for low-budget production projects.

(iv) The Film Office would support a private initiative to create a Manhattan parking facility for production-related vehicles by identifying possible City-owned sites.

VI. BUILDING AN EDGE IN EMERGING APPLICATIONS OF DIGITAL TECHNOLOGIES

Technological advances have triggered remarkable growth of the motion picture and television industry throughout its history. A series of technological changes have improved the audio and video quality of filmed and taped entertainment product. Other technological changes have had far more sweeping impact, creating entirely new markets. The introduction of television, for example, established a new medium for theatrical releases and led to the development of an entirely new form of production.

In the 1980s, as the number of households owning videocassette recorders increased, videocassette sales and rentals grew to become a $12 billion market, eventually surpassing theatrical exhibition as the primary revenue-generator for the movie industry.[43] The rapid deployment of coaxial cable in the early 1980s led to the development of a market for commercial-free, uninterrupted programming in pay television. By the mid-1980s, cable had become the dominant signal-delivery system in the United States.[44] By 1992, U.S. consumers were spending $5 billion annually on premium cable and pay-per-view services.

Although there was some substitution between home viewing and theater viewing and between "free" television and pay television, the net positive impact of the new ancillary markets on the motion picture industry's revenues was substantial. Between 1980 and 1992, direct spending by U.S. consumers on theatrical products soared to about $22 billion from less than $3 billion.[45] Independent production companies, cable systems and programmers, along with the major studios, met the demand for additional programming and benefitted from consumer spending in the new markets.

Digital technologies are the latest improvements that are expected to usher in a new growth phase for the motion picture and television industry. They have already started to change the way filmed and taped entertainment is produced. They promise to change the way entertainment is delivered and to increase the quantity that can be delivered in the future. For consumers, the benefit is access to a significantly wider range of entertainment and greater control over when and where to enjoy the entertainment.

This chapter is about these technologies and the expected impact on the volume of production of motion picture and television programming of new applications stemming from these technologies. It identifies strengths that New York City can capitalize on as the nation moves to what pioneers are calling a world of interactive media.

Digital Technologies and the Interactive Future

Digital technologies take their name from the digital device -- a computer chip that converts words, pictures, or sound into binary code (computer code of ones and zeros) and back to text, graphics, or audio. Once converted to digital form, audio, text, data, still images, and even full-motion video can be stored, manipulated (edited), and played back or retrieved on a personal computer.

Consumers have already seen the impact of digital effects used in motion pictures. Special effects on film, done with optical printers since the beginning of the film industry, entailed weeks of work and cost hundreds of thousands of dollars. With technological improvements allowing the scanning of filmed images into digital form, a filmmaker can composite, crop, color, matte, retouch, and add new images at a computer workstation. The entire process can be done on computers with no loss of resolution, in a shorter period of time, and at much lower costs.

Multimedia files, i.e. files that contain combinations of text, audio, still images, and full-motion video, are data-intensive and require large amounts of storage space. Digital compression technology reduces the storage space requirements of these files and allows the playback of these files in real time.[46] Once in digital and compressed form, multimedia files can be transmitted over local area networks, coaxial cable, or fiber optic cables. Because of compression, cable operators would be able to provide 300, 400, or even 500 channels of programming, instead of the current 40 to 50. With the additional channels, cable operators can offer customers a far wider range of pay-per-view opportunities on a timely basis, creating a virtual video-on-demand.

Experimental transmission of full-motion video over telephone lines using a combination of fiber optic cable and existing copper wiring has been successful.[47] Improvements in compression technology could enable up to four separate televisions or other devices to operate simultaneously from a single telephone line.[48]

What is generating even more excitement in the marketplace is the possibility of *interactivity*. With a computer hooked up to the television or the telephone, consumers can send back information to the program suppliers and other users linked together in an interactive cable network. Red Burns, chairperson of the Interactive Telecommunications Program at New York University, describes the interactive media by contrasting it with one-way media: "One-way media as we know it originates from one source and goes to many. Interactive media creates very different opportunities. It allows exchange and origination from many different sources."[49] With more of the sophisticated hardware available to create, transmit, and receive programming, the capacity for interactivity among many users expands tremendously.

Convergence of Media, Entertainment, Information Services and Delivery Systems

Since all forms of media -- text, graphics, audio, still images, full-motion video -- can be converted into digital files and sent through the same delivery system, industries that used to be unrelated are now converging. Once separated by different modes of delivering their product, companies that provide entertainment software and information such as published materials (books and newspapers), filmed entertainment, videocassettes, information services, and electronic games, face the possibility of reaching the ultimate consumer through a single wire into consumers' homes.

Here is one scenario in the interactive, multimedia future: with a link to an interactive network, a consumer can order and view any program at any time, select camera angles on a sporting or performing arts event being viewed, shop, play games with any number of other users in the network, retrieve the day's news, transfer funds between banking accounts, do research for a paper, hold a videoconference with different parties -- all in the comfort of one's home.[50]

The convergence is happening even faster on the hardware side, the physical equipment needed to build the information superhighways. Bell Atlantic, the only telephone company that is currently allowed to provide video programming in its own region recently announced a plan to acquire Tele-Communications Inc. (TCI), the largest cable system operator in America. The merged company, which reaches 40 percent of U.S. homes wired for cable, will be upgrading the current networks for interactive applications. The second largest cable system operator, Time Warner is teaming up with another phone company, U.S. West, investing $5 billion to upgrade Time Warner's cable network with fiber-optic wire and interactive technology by 1998. Competitors TCI and Time Warner are joining forces to influence the computer and electronics industries to develop compatible hardware and software so that customers using their competing interactive networks would have the capability to communicate with each other.[51]

In order to secure their position in the interactive future, a number of companies that own the delivery systems are buying into or merging with companies that have programming assets. It is no surprise that cable systems, networks, and telephone companies are showing keen interest in acquiring Paramount Communications. It has ownership of filmed and taped assets and it is a major producer of a range of entertainment products: motion pictures, television programs, sports programming (Madison Square Garden), music recording, and books (Simon & Schuster, Prentice Hall, Pocket Books).

The *multimedia industry*, as this convergence of computing, entertainment, telecommunications, and information services is called now, is going to be much larger than the sum of its parts, according to a few who venture some forecasts.

What Does The Interactive Future Mean for Film and Television Production?

At the minimum, the increase in channel capacity will enable studios, production companies, and television networks that have libraries of programming assets or distribution rights to extract more revenue from their current holdings. By making their films and shows available on an electronic video library, owners of these assets will be able to realize additional revenues each time consumers select their program for viewing in a pay-per-view or video-on-demand system. In the early stages of the interactive market, the expanded choice among programs that had been previously released in theaters or on television may satisfy the additional consumer demand for programming.

Eventually, new original programming may be needed to fill out a programming schedule, or more correctly, a programming library. Indeed, some of the biggest industry players are betting on the growth in the production of multimedia titles. The capacity to develop a library for different niches alone is expected to boost demand for specialized programming. As artists, educators, and other creators of multimedia materials learn how to work with multimedia technologies and learn which applications are most needed, production is expected to increase.

The cable production and programming executives interviewed for this study believe that the substantial increase in programming will not occur until the end of the decade. Several things have to happen first before a dramatic increase in programming becomes apparent.

Providers of multimedia programming still have to find out what consumers want and how much they would be willing to pay for multimedia products they can access through an interactive network. Studios, cable networks, and other producers need to learn how to price and schedule release of products so they can realize incremental revenues from the new outlets rather than lose traditional business to them. This learning process has already started. Never before have so many tests of video-on-demand and multi-channel pay-per-view tests been announced to determine what interactive entertainment products are going to be commercially viable.[52]

Other questions remain to be answered: How soon could all the hardware and software needed for the interactive future be installed? When would consumer investment in new-generation television, computers, and recorders be widespread enough to generate significant demand for new programming? Some developments are accelerating this process. As mentioned earlier, the investment in fiber-optic cable has started. For example, Time Warner will have a fully operational interactive network in Orlando, Florida by next year. Moreover, players from the different industries are managing the process by setting performance standards, including interoperability of systems, in order to avoid wasteful business and consumer investment in incompatible equipment or equipment that could become obsolete very quickly.

The final factor that will determine how quickly the nation moves into an interactive media world is government regulation. Regulators are concerned in particular about fostering competition in the marketplace and making sure that access to the information superhighway will not be limited to a privileged few. The pace at which regulation lifts existing barriers or impose new ones will dictate how fast new applications can be widely introduced to the marketplace.

The impact on the advertising industry and commercial production is most uncertain. Television advertising as a way to reach a mass audience of viewers will have to adjust when the television changes from a passive receiver of signals to an interactive multimedia tool. The advertising industry is just beginning to grapple with the issues. Will greatly expanded programming result in fragmentation of the audience? If so, will targeted advertising and marketing be the dominant form of advertising? What ad formats would work in a pay-per-view or video-on-demand setting? Would advertising continue to be a major underwriter of programming costs in the 500-channel universe?

Positioning for Leadership

New York City is poised to take advantage of the growth of the interactive multimedia market for several reasons.

- Many of the entertainment and telecommunication companies making the initial forays into the new applications are headquartered in New York City: Time Warner, Viacom, and AT&T, to name a few.

- New York City's telecommunications infrastructure is the most developed and reliable network in the world. The New York state and local governments are working closely to ensure that New York City maintains its leading edge.

- New York University's Interactive Telecommunications Program has pioneered several working applications of the new technologies in and outside the city.

- Since the ultimate goals of the new technologies is the production of informatio: .d entertainment that consumers will find valuable, the concentration of "content creators" -- film and television production, publishing, information services, higher education -- in New York City is a key advantage.

Already, there are institutions in New York City that form a base upon which to promote the creative applications of interactive technologies. The Interactive Telecommunications Program at New York University, as mentioned earlier, has been providing training and facilities since 1979 to make the technologies accessible to creative and technical professionals. Through group projects and lab work, students are encouraged to experiment, combine the newest tools and ideas in innovative ways. It has attracted people from various backgrounds and different countries to develop interactive and multimedia products.

Students in the Interactive Telecommunications Program produce an interactive program which is cablecast each evening over Manhattan Cable. Interactive videodiscs and telephone call-ins enable viewers to choose portions of videodiscs produced by students and control the direction of the television program. Interest in interactivity is high; the call-in lines have been constantly busy during cablecasts.

The Interactive Telecommunications Facility will be a key participant in the new Center of Advanced Technology in Digital Multimedia Production, Publishing, and Education at NYU. With the help of a grant from the New York State Science and Technology Foundation, the Center will provide New York City-based companies wishing to start or expand into interactive and multimedia product development, access to a range of multimedia hardware and software. The Center hopes to accelerate the commercialization of multimedia applications by collaborating on projects with New York City-businesses. The Center of Advanced Technology will then be a combination of experimental laboratory, entrepreneurs' resource, training center, and forum for information exchange.

Controlled Entropy, the first company to show an interactive motion picture in a theater, developed both the hardware and the film that enabled viewers to determine the outcome of the story. With support from Sony, it is producing four more interactive "features" through the course of one year. It expanded space in mid-1993 to create a research and development laboratory and writing rooms in order to support the technical and creative requirements of the interactive feature film projects.[53]

Another New York City-based company, R/Greenberg Associates is building a national reputation as a high-quality special effects house for film and tape production.[54] A third New

York City company - **ACTV, Inc.** - hopes to post $2 million in interactive educational product sales this year and expects to begin sales of interactive entertainment products next year.[55]

Software development and telecommunications are two local industries in the City that will be active players in the unfolding multimedia industry, in addition to film and television production. The special support that these industries are receiving from the City ensures that the film and video content creators could interface with multimedia software and hardware developers and rely on a state-of-the-art telecommunications infrastructure in the City.

For the software industry, the City will assist in the private development of a Software Center, a low-cost, technology-rich space for new and expanding software firms, including those specializing in multimedia. The industry will also be able to draw financing from an Advanced Technologies Venture Capital Fund that will be soon be created. The City will assist the software industry in gaining visibility by including its strengths in the New York City location marketing campaign.

In telecommunications, the New York City Department of Telecommunications and Energy (DTE) has primary responsibility for systematic policy efforts to develop the industry. One of its major accomplishments was bringing together 15 providers of telecommunications and services into a consortium that provides mutual assistance should a provider or providers experience a disruption in services. The success of several reliability tests conducted by the consortium makes New York City's telecommunications more disaster-proof than any other major network. Additional initiatives in the telecommunications field are intended to streamline the regulatory processes to encourage new entrants and increase competition, and to remove barriers to network expansion by the city's businesses.

Recommendation for Government Action

The City of New York has important roles to play in this area, in addition to the programs and initiatives to promote the related software and telecommunications industries.

Film and television production and post-production location decisions will increasingly be determined by the availability of the latest technologies and equipment and the pool of re-trained personnel in an area. Therefore, in order to clinch a leadership position in the interactive multimedia environment, New York City has to ensure that there are no city-specific disincentives to investment in the new interactive and multimedia tools (the next generation production and post-production equipment).

In addition, the creative and technical professionals will have to learn how to work with the new techniques, equipment, and processes. For example, multimedia applications depart from the traditional linear exposition; writing an interactive script requires learning how to develop parallel or concurrent story lines. In addition, industry professionals should have the means to keep track of changes in some of the traditional video guidelines that advances in production technology are bringing about.

Through a linkage between the Mayor's Film Office and the Center of Advanced Technology, New York City's motion picture and television production industry can take advantage of the Center's resources and expertise. The Center's goal is to help businesses that would like to start or expand into the development of multimedia products by collaborating on research and development activities, offering intensive training programs, and operating a laboratory equipped with different types of multimedia hardware and software products.

VII. The Production Space Shortage in New York City

In the early 1980s, as the numbers of made-for-television movies, theatrical features, and cable productions began to climb, demand for studio space ran high. Harold Vogel characterized the situation as one of very strong demand; other parts of the country competed effectively with Los Angeles "by promising more accommodating shooting schedules or lower overhead costs."[56] In New York City, feature film and television production was on the rise and there had been numerous calls for more studio construction.

Capital Investment in Independent Studio Facilities in New York City

The past decade saw considerable capital spending on construction and equipment in independent studio facilities in New York City -- at least $115 million, not counting the more substantial funds spent by the television networks on in-house studio development. Among those that increased the stock of studio space in New York City were the construction or expansion of four stages at Kaufman Astoria, a 10-studio complex at Silvercup Studios, eight television studios at Unitel Video, one sound stage at Apollo Theater, and most recently, Lifetime Television's two state-of-the-art sound stages in the Kaufman Astoria complex. Many smaller studios and sound stages also invested in new or expanded space and production and post-production equipment.[57] [Appendix G lists the number of studios or sound stages that were constructed or expanded between 1982 and 1993 by various size category. It also gives the current inventory of production space in the city according to the 1993 New York Production Guide.]

All of the construction spending involved <u>converting</u> existing space into production spaces; none involved the construction of an entirely new building or plant. In at least three of the projects, the public sector provided some funds through the Economic Development Corporation (EDC) or federally-financed Urban Development Action Grants: $10 million in Kaufman Astoria, $2.2 million in Silvercup Studios, and $1.5 million in the Apollo Theater.

The three broadcast television networks have been the major investors in production space in New York City. Because they have some control over the demand for their production space, they are in a better position to do major capital improvements and construction. For example, in 1987, NBC began a 15-year renovation of its studios and headquarters at Rockefeller Plaza. The total cost of upgrading of machinery and equipment alone would be $1.1 billion. In March 1993, CBS announced that it would be rebuilding its Broadcast Center on West 57th Street. Over the next 15 years, CBS expects to spend $300 million on new production and broadcasting technologies. Capital Cities/ABC will be building two new studios adjoining two existing studios presently used for the production of ABC's soap operas.

In addition, this past May, Sony Music opened a state-of-the art multi-use complex including a completely rebuilt 270,000 cubic foot sound stage for music video, film, and television production. The renovation was estimated to have cost the company $40 million.

The Shortage of Television Studio Space

Even with the active capital investment in production space in the past decade, television producers have raised the need for more fully-equipped facilities with at least 10,000 square feet of production space. About half of the independently-owned studios that were constructed or expanded in the past decade were under 4,000 square feet in size, too small to meet expressed needs. Kaufman Astoria, with the largest studio and the only one above the 20,000 sq. ft. category in New York City, has carved a niche for itself. Several producers have used the excellent facilities at the other studios in Queens but many producers prefer working in Manhattan.

Recent highly publicized searches for television studio space, while ending up to be retention successes for New York City, illustrate how critical the shortage issue is for the Film Office's efforts in attracting more television production. The move of *Late Night with David Letterman* from the state-of-the art studio facility in NBC to CBS prompted a search for television studio facilities in the city to ensure that the show remained here. The search turned up the Ed Sullivan Theater which had to be renovated at an estimated cost of $12 million to convert it to usable television studio space. King World Productions, producer of *Inside Edition*, almost moved this show and two new shows out of New York City until it found a way to schedule the three shows at Unitel Video.

The apparent shortage in large television studio space persists for at least two reasons. First, independent studio facilities that do not have control over the volume of production cannot expand on the basis of annual commitments or even four-year commitments from television projects. The payback period for the investment into the facility is often longer than the period that most shows are housed in these facilities.[58] Second, the market for production space in New York City is affected by the substantial stock of large and modern production space in Los Angeles and Florida. [See Appendix G for a listing of the studio properties of the major Hollywood studios.]

While New York City has a shortage of large television sound stages, there is also an under-utilization of smaller, less modern, or inadequately equipped production facilities here. Under-utilization may also be due to the location. Many Queens studios, for example, suffer from the preference expressed by producers to work in midtown Manhattan. Producers have cited cost factors that deter them from using studio space outside Manhattan: poor access due to traffic congestion at East River crossings, substantially higher surface transportation costs for actors, and the fact that most "talent" are paid from the time they leave their residences, not when they arrive at the studio for work. A clear policy implication is that the City should couple any strategy to encourage studio construction with a strategy that promotes better usage of the existing facilities.

Recommendations for Government Action

The economics of studio construction and operation and the City's current tight fiscal situation preclude the use of government funds for the construction of a television studio facility. However, there are a number of steps that the City can undertake in order to facilitate private sector investment in large and modern television studio construction, and at the same time, assist the existing under-utilized facilities throughout the city.

(i) The Film Office would strongly advocate viable private-sector proposals for studio construction in Manhattan and assist proponents in obtaining necessary City approvals.[59]

The Film Office and EDC would examine the inventory of city-owned and privately-owned properties in Manhattan to determine if there are existing properties that can easily be converted to studio use. The space databank developed through this review could be marketed to private sector users who are interested in making leasehold improvements and running a production facility. The work could also serve as a basis for a quick response to any production company looking for production space in the borough. The space databank could be maintained regularly on the Film Office's *Fax back* system described in Chapter IV.

(ii) The Film Office would work together with the Queens studio heads and EDC in developing a plan to increase usage of the borough's production facilities.

(iii) The Film Office would organize the production facility community to develop a market among new and small independent producers for the under-utilized production facilities in the City.

VIII. Recommended Strategies to Promote Motion Picture and Television Production in New York City

The production of motion pictures and television programs in New York City has an immediate and substantial economic impact on jobs, receipts, and payroll for several types of local businesses, including hotels, caterers, studio facilities, set and scenery shops, wardrobe rental, script printing services, transportation services, audio and video equipment rental.

The cost of the recent decline in production activity in New York City can be measured by the loss of revenues, jobs, and earnings. The more worrisome cost, however, may be the attrition of creative and technical talent and some erosion of the production and post-production base in New York City.

The City should step up efforts to help the local production industry recover market share in feature film and television production, regain dominance in commercial production, build market share in the cable and pay television market, and position itself to take advantage of the growth of the newest forms of filmed and taped entertainment.

To be most effective, the City should focus its resources to address the two major problems besetting the industry: the cost premium of producing in New York City relative to the other production centers, and the widespread perception that New York City is a difficult place to do business.

The Film Office has already started to implement the following key elements of such a strategy to boost motion picture and television production activity here.

- Outreach program of direct and regular contact with the production and programming companies in Los Angeles

- Marketing program to highlight New York City's competitive advantages and the successful experience of producers and directors in New York City

- More efficient delivery of City services to the motion picture and television production industry

- More effective partnership with the industry to identify areas where the City can help make production a more efficient and less costly process in New York City

The next section summarizes additional elements of a proposed City strategy to help the motion picture and television industry and create jobs for New Yorkers.

Recommendations for Film and Television Industry Support

Objective 1

To leverage private and public resources to encourage more film and television producers to conduct principal photography and post-production work in New York City.

Recommendation

The Film Office would work with EDC and FPM in re-shaping financing programs to serve producers with feature film or television contracts. Together with private sector lenders and investors, the Film Office would explore other innovative ways to expand the pool of resources for the financing program.

The financing would apply to productions that meet some local content requirement. This local content requirement would involve a minimum percentage of total principal photography or a minimum percentage of total production spending in New York City.

The Jobs Growth Venture Fund presently being set up by EDC may be explored as the vehicle for the financing incentive program for the film and television production industry.

Objective 2

To assist the local industry in reducing other costs incurred during the production of feature films and television programs in New York City.

Recommendations

(a) The Film Office would facilitate cooperation between labor unions and producers in order to standardize union contracts for low-budget production categories.

(b) The Film Office would encourage the development of a privately-run Production Office Center in Manhattan, and devise an incentive to enable the Center to offer low-cost office space to producers. The facility would be used only for work related to production in New York City.

(c) The Film Office would advance a proposal from local production equipment rental companies to combine resources and develop a Manhattan parking facility for production-related vehicles. The Film Office would coordinate with other City agencies to identify City-owned sites that may be used for the proposed parking facility.

Objective 3

To assist the motion picture and television production and information technology industries in the city to build an edge in the developing multimedia industry.

Recommendation

The Film Office and EPM would establish a liaison with the NYU Center for Advanced Technology (CAT) in order to facilitate linkages between the motion picture and television production industry and the multimedia and interactive research and development infrastructure available at the Center.

The Center for Advanced Technology would provide creative professionals and crafts people with three important resources: (i) laboratory space for experimentation with digital technologies; (ii) assistance in the commercialization of multimedia applications; and (iii) training in the use of the new technologies.

Objective 4

To redress the shortage of television studio space in the city and, at the same time, organize a market for currently under-utilized facilities.

Recommendations

(a) The Film Office should actively support viable private-sector proposals for large and modern studio facility construction in Manhattan by: (i) raising awareness about the need for such space and (ii) assisting construction project proponents in obtaining City regulatory and other approvals. EPM and EDC would assist the Film Office in evaluating the private sector proposals.

The Film Office and EDC would develop a databank of available city-owned and privately-owned properties that could easily be renovated into studio facilities to be marketed to private companies interested in making leasehold improvements and operating studio facilities.

(b) The Film Office would work with Queens studio heads in planning a joint marketing effort for the borough's facilities.

(c) The Film Office would continue its efforts to convince producers to utilize studio space outside Manhattan and encourage local facility owners to use the *Fax back* system to pitch their available facilities to producers.

(d) The Film Office would organize the production facilities community to develop a market among new and small independent producers for under-utilized production facilities in the city.

Objective 5

To bring back commercial production to the city, by capitalizing on the location of the major advertising agencies and the Fortune 500 industrial and services companies in New York City.

Recommendation

The Film Office would encourage high-level government contact with senior executives of New York City-based advertising firms and corporate headquarters to convince them to do their commercial production work in the City.

The Mayor's Office of Film, Theatre, and Broadcasting will be primarily responsible for implementing the approved programs and initiatives, coordinating with the other city agencies, determining additional resources that are necessary, and evaluating the effectiveness of the programs in accomplishing the stated goals. The Film Office will also be responsible for regular reports on the health of the film and television production industry in New York City.

Appendix A

Examples of the Largest New York City Companies in Motion Picture and Television Production

Time Warner is a good example of a media conglomerate operating in motion picture and television production and cable services, as well as the publishing and music media. In New York City, Time Warner employs approximately 11,000 people. Time Warner is a leader in motion picture and television production, producing such hits as *Lethal Weapon 3*, *Batman Returns* and *Murphy Brown*. As the country's second largest cable television system operator, Time Warner's cable presence in New York City is significant, employing approximately 3,000 people. In addition, Time Warner owns Home Box Office (HBO), the most successful cable television programmer in the world, whether measured in terms of revenue, ratings or programming awards. HBO employs approximately 1,000 people at its 42nd Street headquarters in New York City. Time Warner also employs nearly 2,000 people at its headquarters at Rockefeller Plaza and 5,000 people at its Time, Inc. magazine subsidiary at 1271 Avenue of the Americas. Some of Time Inc.'s major publications include *Sports Illustrated* and *People Magazine*.

Employing 8,400 people in New York City, **Capital Cities/ABC, Inc.** operations include a vast radio and television network, film distribution, television production, as well as cable and Broadway theater investments, and a publishing group. Some of the major television network shows broadcast from New York City include *World News Tonight with Peter Jennings*, *20/20*, and *Good Morning America*. *All My Children*, *One Life to Live* and *Loving*, soap operas aired by ABC, are produced in New York City. In addition, Capital Cities/ABC Video Enterprises, Inc. owns 80 percent of ESPN, the sports cable channel, as well as other popular cable stations such as Arts and Entertainment (38 percent owned) and Lifetime (33 percent owned). Some Broadway theater investments include *Cats*, *Les Miserables* and *Phantom of the Opera*. Fairchild & Merchandising Group, one of Capital Cities' publishing groups, publishes widely circulated newspapers such as *Women's Wear Daily* and *SportStyle*.

Viacom International, Inc. is another example of a diversified entertainment and communications company. Major units include Viacom Cable, Viacom Networks, Viacom Entertainment and Viacom Broadcasting. With its headquarters and cable programming arm (Viacom Networks) in New York City, the company provides the city with 2,500 jobs out of a total employment of 4,900 worldwide. Viacom Networks includes MTV Networks and Showtime Networks, and is the most lucrative unit of the company, providing half of the its revenue and profits.

Appendix B

Canadian Employment and Earnings in Film, Video, and Audio-Visual Production, 1991-1992

	Canada	Quebec	Ontario	British Columbia
Employment	15,627	8,822	2,832	2,786
Full-time	2,822	941	1,267	304
Part-time	2,546	862	284	1,367
Freelancers	10,156	6,992	1,221	1,109
Working proprietors	103	27	60	6
Compensation (Mil. C$)	207.1	70.9	81.6	40.8
Salaries & wages	132.1	31.6	66.9	24.5
Employee benefits	11.4	3.4	4.6	2.7
Freelancers' fees	63.7	35.9	10.1	13.6

Notes:

1. These employment and earnings data are obtained through a census of Canadian establishments involved in motion picture, television, video, and commercial production (parts of Canadian SIC 9611). The Canada statistics are roughly comparable to the insured employment series used for U.S. and state employment and payroll in this study. The U.S. Bureau of Labor Statistics does not maintain the categories that Canada uses to distinguish among part-time employees, full-time employees, freelancers, and working proprietors.

2. The reference period for these data was 1 April 1991 through 31 March 1992. Data are preliminary.

Source: Culture Statistics Programme, Statistics Canada

Appendix C

Comparative Employment and Payroll Statistics for Top U.S. Production Centers

TABLE C-1. Shares of U.S. Motion Picture and Television Production Employment and Payroll in Top States - 1992, 1991, 1982

States	Share of U.S. Employment			Share of U.S. Annual Payroll		
	1992	1991	1982	1992	1991	1982
United States	100.0	100.0	100.0	100.0	100.0	100.0
California	66.5	58.8	64.5	71.4	68.8	71.7
New York	9.7	13.2	17.6	13.1	14.3	17.4
Illinois	2.9	3.5	2.4	2.1	2.4	1.7
Florida	1.7	1.9	1.1	1.2	1.2	0.6
Texas	1.6	2.3	1.9	1.0	1.2	1.2
Pennsylvania	1.1	1.3	1.2	0.8	0.8	0.7
Massachusetts	1.1	1.2	0.6	0.8	0.8	0.4
Georgia	1.0	1.0	0.6	0.6	0.6	0.3
Missouri	1.0	0.8	0.6	0.6	0.6	0.4
Ohio	1.0	1.2	0.7	0.5	0.6	0.4
Michigan	0.9	1.1	0.4	0.7	0.7	0.3
New Jersey	0.9	1.0	0.5	0.9	0.9	0.4

Only states that have had a minimum of 1 percent of the U.S. film and television production industry employment in at least three of the past five years are included here.

Source: U.S. Dept. of Labor, Bureau of Labor Statistics

TABLE C-2. Compounded Annual Growth Rates of Employment and Payroll in Motion Picture and Television Production in Top U.S. States

States	Employment		Payroll	
	1982-1992	1988-1992	1982-1992	1988-1992
United States	4.7	6.5	10.1	9.2
California	5.0	8.3	10.0	9.3
New York	-1.3	0.0	7.0	8.0
Illinois	6.8	4.7	12.6	10.2
Florida	9.5	8.3	17.2	14.2
Texas	3.2	-5.4	8.4	8.1
Pennsylvania	3.5	4.7	10.9	9.6
Massachusetts	11.6	6.4	17.6	8.1
Georgia	10.8	7.7	16.8	7.8
Missouri	9.7	4.1	13.6	6.3
Ohio	8.8	3.3	14.8	11.0
Michigan	13.0	11.3	20.6	15.1
New Jersey	11.0	-2.9	18.8	6.9

Source: U.S. Dept. of Labor, Bureau of Labor Statistics

Appendix D

Comparison of Hourly Rates and Benefits of Selected Job Titles in Film and Television Production: New York City, Los Angeles, Canada, Portland

New York City cost differentials relative to Los Angeles range from +1 percent for a boom person to +52 percent for extras. Compared to Portland rates, New York City's cost disadvantage ranges from 25 percent for a head gaffer to 161 percent for an extra. New York City's cost premium vis-a-vis Canada starts at 10 percent for an extra and reaches 156 percent for a teamster.

TABLE D-1. Minimum Hourly Rates Paid in Production[1]

Title	Rates ($)				NYC Rate as a Percentage of Rates in other Locations (%)		
	NYC	L.A.	Portland[2]	Canada[3]	L.A.	Portland	Canada
Director of Photography	$ 69.50	$ 58.18	n.a.	$ 36.75	119%	--	189%
First Assistant	32.00	25.77	21.50	20.25	124	149	158
Head Gaffer	26.98	24.69	21.50	19.50	109	125	138
Boom Person	26.98	26.81	18.00	18.00	101	150	150
Teamster	26.86	23.96	16.00	10.50	112	168	256
Extra	12.38	8.13	4.75	11.25	152	261	110

[1] All rates are hourly for daily employees. [2] Representative of rates provided for non-union workers in the U.S. Rates provided by the Mayor's Film Office. [3] Expressed in U.S. Dollars, $1 Canadian = $0.75 US.

Notes:

1. With the exception of extras, rates for New York City and Los Angeles are based on International Alliance of Theater Stage Employees (IATSE) schedules. Rates for extras in New York and Los Angeles were taken from Screen Actors Guild (SAG) schedules.

2. National Association of Broadcast Employees and Technicians (NABET) rates were used for Canada. Rates for extras are based on Alliance of Canadian Cinema, Television and Radio Artists (ACTRA) schedules.

3. All titles reviewed are granted overtime pay, which generally applies to more than eight hours of work. In the case of IATSE teamsters in New York City, overtime is paid after seven hours of work, adding to the New York City cost premium.

4. Under West Coast Studio IATSE agreements, some minimum staffing requirements add to costs in Los Angeles. For theatrical studio work, a minimum camera crew consisting of a director of photography, a camera operator, a still photographer and at least one assistant photographer must be assigned. For television, a minimum three-person crew, one first aid person, four editors and one art director are required.

5. There are variations on rates for work performed in a studio versus on location ("distant"). In Los Angeles, overtime rates are generally higher for studio work. In New York City, there are further variations for overtime rates paid for work performed in independent studios versus major studios. Under IATSE agreements, independent studios are required to pay higher overtime rates than major studios for directors of photography.

Benefits Add to New York City's Cost Disadvantage

Pension, health, and welfare benefits increase the wedge between costs in New York City and other areas. In the table below, total compensation -- wages plus benefits -- for an 8-hour work day is calculated for five job titles in New York City, Los Angeles, and Ontario.

TABLE D-2. Estimated Wages and Benefits for an 8-Hour Work Day

Job Title	Wages and Benefits ($)			NYC Cost as a Percentage of Costs in other Locations (%)	
	NYC	L.A.	Ontario	L.A.	Ontario
Director of Photography	$ 633.03	$ 517.03	$ 339.60	122%	186%
First Assistant	333.03	237.73	187.80	140	177
Head Gaffer	285.84	228.43	180.90	125	158
Boom Person	285.84	246.70	167.10	116	171
Teamster	281.50	222.14	98.10	127	287
Extra	111.42	73.27	99.00	152	112

Source: Entertainment Partners, *Paymaster 92-93*

Appendix F

Basic and Premium Cable Networks Based in New York City

TABLE F-1. Top 20 Cable Networks by Number of Subscribers, 1993

Network	Subscribers (mil.)	Headquarter Location
ESPN	61.6	Bristol, CT
CNN (Cable News Network)	61.0	Atlanta, GA
USA Network	60.12	New York, NY
TBS	60.03	Atlanta, GA
The Discovery Channel	59.0	Bethesda, MD
Nickelodeon/Nick at Nite	59.0	New York, NY
C-SPAN	58.7	Washington, DC
TNT (Turner Network TV)	58.35	Atlanta, GA
The Family Channel	57.4	Virginia Beach, VA
TNN: The Nashville Network	57.4	Stamford, CT
MTV: Music Television	57.3	New York, NY
Lifetime Television	57.0	New York, NY
Arts & Entertainment Network	56.0	New York, NY
The Weather Channel	53.4	Atlanta, GA
Headline News	51.4	Atlanta, GA
CNBC	48.3	Fort Lee, NJ
VH1 (Video Hits One)	47.3	New York, NY
QVC Network	44.6	West Chester, PA
AMC (American Movie Classics)	44.5	Woodbury, NY
WGN/UV1	38.1	Tulsa, OK

Source: National Cable Television Association, *Cable Television Developments* June 1993.

Appendix E

Sales and Hotel Tax Incentives Available to Production Companies in the U.S.

State	Type of Incentive	Conditions or Restrictions
Arizona	Rebate of 50 percent of 5% state sales tax paid on tangible goods and services for film and television production.	Production company must spend at least $1 million shooting in the state.
Florida	Rebate of 6 percent sales and use tax on purchases or lease of motion picture, video, and sound recording equipment in state.	Not available.
Iowa	Rebate of hotel tax.	Hotel stay must exceed thirty days.
Kansas	Refund of sales and guest taxes on hotel stay.	Hotel stay must exceed 28 days.
Kentucky	Rebate of 6 percent sales tax on pre-production and production expenses.	Production must have production offices and banks in the state, and must establish an account with the film office.
Louisiana	Sales tax rebate on production expenses.	Expenses in the state must exceed $1 million.
Maine	Exemption from hotel tax.	Hotel stay must exceed 27 days.
Missouri	Rebate of hotel tax.	Hotel stay must exceed 29 days.
New York	Exemption from 4 percent state sales tax and local sales tax on production equipment purchases. Exemption from state sales tax on supplies used in production.	
North Carolina	Cap of 1 percent on sales and use tax on purchases or rentals of items used in filmmaking.	Companies must register with the Tax Department and present a completed Manufacturer's Certificate to each vendor at the time of purchase.
Texas	Exemption from 8 percent state sales tax on certain production-related expenses, such as post-production services and film purchases.	
Tennessee	Certain cities rebate hotel taxes.	Cities set specific minimum number of room nights to qualify.

Sources: National Association of State Development Agencies, California Film Commission.

TABLE F-2. Number of Subscribers and Program Offerings by Premium Cable Networks Based in New York City, 1993	
Network/ Subscribers	Programming
HBO 17.4 million	Motion pictures new to the service, exclusive new entertainment specials (including music, comedy, original drama, documentary and series programming), sports programming, special events, family programs, specials, and original service.
Showtime 10.0+ million	Exclusive blockbuster movies, original movies and mini-series, comedy series and specials, championship boxing, family entertainment, and classic films.
Movie Channel 10.0+ million	Recent blockbusters to rare classics, on-air personalities, unusual festivals and features every month, and special programming slots, such as "Series Sunday" and "Tuesday Night Terrors."
Cinemax 6.3 million	Select and broad appeal films, and a variety of unique, critically acclaimed titles.
Flix n.a.	Popular movies from the sixties through the nineties.

Source: National Cable Television Association, *Cable Television Developments* June 1993.

Appendix G

Inventory of Production Facilities in New York City and Major Studio Real Estate Assets in California and Florida

TABLE G-1. Sample of Independently-Owned Studios and Stages Constructed and Renovated in New York City from 1982 to 1992 by Size

Size in square feet	Number
Less than 1,000	3
1,000 - 2,000	7
2,000 - 3,000	10
3,000 - 4,000	4
4,000 - 5,000	2
5,000 - 6,000	2
6,000 - 7,000	2
7,000 - 8,000	4
8,000 - 9,000	2
9,000 - 10,000	2
10,000 - 20,000	3
20,000 and over	1

The sample is approximately 45 percent of the current stock of independently-owned production space in the city. Independent-owned facilities refer to those that are not exclusively for in-house use by a production company or network.

Source: Responses to survey on capital spending conducted by EPM.

TABLE G-2. Inventory of Independently-Owned Studios and Stages in New York City by Size of Facility [a]		
Size in square feet	Number of stages	Number of studios
Less than 1,000	2	6
1,000 - 2,000	9	5
2,000 - 3,000	20	8
3,000 - 4,000	8	3
4,000 - 5,000	3	2
5,000 - 6,000	4	3
6,000 - 7,000	5	0
7,000 - 8,000	3	1
8,000 - 9,000	2	2
9,000 - 10,000	0	0
10,000 - 20,000	6	2
20,000 and over	3 [b]	0

[a] Excludes studios that do not list dimensions in the New York Production Guide.
[b] Includes Pier 64's two 40,000 sq. ft. raw column-free space.

A studio is a room with sound proofing, quiet air-conditioning, special flooring, and a pipe grid on the ceiling for lighting. These features are essential to make the studio suitable for television use. There are usually control rooms and switchers in television studio facilities. A stage is a room with four walls, usually soundproof, where mobile sound, camera, and audio equipment can be brought in. Stages are more often used by film rather than video producers.

Source: N.Y.P.G. Ltd. *New York Production Guide*. 1993 and 1992 eds. New York: N.Y.P.G. Ltd., 1993.

TABLE G-3. Major Studio Real Estate Assets, 1990	
Studio	Assets
Columbia Pictures (Sony Corp.)	44 acres in Culver City, near Los Angeles (formerly MGM)
Walt Disney	27,500 acres, Disney World, Florida 160 acres, Disneyland, California 44 acres, Burbank, California, headquarters 691-acre ranch outside Los Angeles
Fox (News Corp.)	63 acres, studio and headquarters, Los Angeles
MCA Inc. (Universal Pictures)	420 acres, Los Angeles headquarters and studio-tour 444 acres, Orlando, Florida, studio-tour (Studio has six large sound stages and a 51,000 sq. ft. video production and office complex used by Nickelodeon.)
Paramount	50 acres, studio, Los Angeles
Warner Bros.	140 acres, Burbank studios

Sources: Vogel, Harold L. *Entertainment Industry Economics*. 2nd ed. Cambridge: Cambridge University Press, 1990. MCA 1989 annual report.

ENDNOTES

1. Under the New York State Unemployment Insurance Law, employers finance an unemployment insurance program through payroll taxes for all employees that perform a service for compensation under a contract for hire. The insured employment series is based on the information on employment and payroll collected under this program. It represents a virtual census of employment and payroll because very few workers are exempted from this law. Among those excluded from the program are independent contractors, defined as persons who are in business for themselves and make themselves available to the general public to perform services.

2. The Port Authority adjusts the insured employment figures for motion picture and television production in New York City by 7.6 percent to account for the self-employed or independent contractors. The Mayor's Film Office estimates that the necessary adjustment may be higher, at least 10 percent.

3. Los Angeles County Film Office.

4. Jeffrey Hayes (producer of television series *Law and Order*), personal interview, 1 July 1993.

5. David Dunlap, "TV Industry Scrambles for Space," *New York Times* 28 March 1993, Real Estate section: 6.

6. American Association of Advertising Agencies, *A.A.A.A. Television Production Cost Survey System Report of 1991 Findings* (New York: American Association of Advertising Agencies, 1992) 21.

7. Port Authority of New York and New Jersey, *The Arts as an Industry: Their Economic Importance to the New York-New Jersey Metropolitan Region* (New York: Port Authority of New York and New Jersey, 1993) 32.

   An attempt to compare production levels in New York City to activity in other production centers showed the absence of uniform methodology and coverage for estimating the production dollars spent in a local economy. Watchers of the film and television industry must then be cautioned against use of such data to rank production centers.

   For example, Toronto, Pennsylvania, and Illinois do not include direct expenditures related to commercial production. New York City and Toronto do not fully capture all the in-studio production that occurs in television or cable networks for which film permits are not sought. Some states report the total impact of production which includes the multiplier effects of direct production expenditures.

   Except for the confirmation of the pre-eminent standing of California and New York in the industry, statistics on production expenditures show inconsistencies with published statistics on payroll and employment. A ranking based on direct expenditures is widely different from the ranking based on employment and payroll. In addition, ratios between direct spending estimates and payroll numbers vary greatly from one state to the next.

8. Port Authority, 35.

9. The Regional Input-Output Modelling System (RIMS II) is developed by the Regional Economic Analysis Division in the Bureau of Economic Analysis, U.S. Department of Commerce.

10. Capital Cities/ABC, presentation, July 1993.

11. National Endowment for the Arts, *Artists in Metropolitan Areas - 1990* (Washington, D.C.: National Endowment for the Arts, 1993) Research Division Notes #42. The New York metropolitan area includes the five boroughs of New York City and Putnam, Rockland, and Westchester counties.

12. Port Authority, 7-8.

13. Liz Nealon (executive producer of *Ghostwriter*), personal interview, 30 June 1993.

14. *The Vital Spark: A Program to Sustain New York City's Motion Picture, Television, and Commercial Industry* (New York: Hamilton, Rabinovitz, and Alschuler, Inc., 1993) Appendix.

15. The latest count of employed actors and directors in New York is based on the 1990 Census occupational statistics which reflect conditions in 1989, before the production slowdown. The reports of talent relocating to other places have come up in several news reports and studies and during interviews done for this study. For example, a 1992 study done by a non-profit policy research and consulting firm, *Exploring the Metropolis*, on the state of the theater in New York City cites the attrition of film and television talent as a problem that has shrunk the talent pool for theater.

16. California Department of Commerce, "California Film Industry," *California Industry Report* January 1992: 5.

17. Port Authority, 33.

18. Los Angeles may already be the dominant production location for commercials. A cost survey done annually since 1987 by the American Association of Advertising Agencies began tracking the number of commercials shot in New York City and Los Angeles for the first time in 1991. It found that 738 commercials were shot in Los Angeles that year, compared to 667 in New York. In addition, Los Angeles-based production companies shot 240 outside Los Angeles, compared to 317 commercials shot out of town by New York-based production companies.

19. Pat Wechsler, "It's Eastward Ho for TV Ad Makers," *Newsday* 15 February 1993, 33.

20. The problem of Los Angeles was referred to as runaway production -- the movement of production from Los Angeles to other production centers, including New York City, in the early 1980s. It was attributed to several factors, including a lack of cooperation from the population; complicated sets of state, county, and city rules on location filming; high fees and restrictive location filming conditions; and disagreements with the unions.

Runaway production also coincided with increased demand for production space as production of made-for-television movies, theatrical features, and cable shows grew rapidly. Other states were able to take business away from California by offering more accommodating shooting schedules or lower overall costs.

21. National Association of State Development Agencies, *Survey of State Film Offices* (Washington, D.C.: National Association of State Development Agencies, 1992).

22. California Film Commission, *A Survey of Our Competition* (California: California Film Commission, 1993).

23. California Film Commission, *A Survey of Our Competition* 4-6. Note that until its marketing budget was increased to $75,000 in 1993, the Mayor's Film Office in New York City had significantly fewer resources to use for marketing and promotional activities.

24. California Film Commission, *Survey of Our Competition* 17.

25. Laura Oaksmith, "The Virginia Film Initiative," *The University of Virginia Newsletter* 65 (1989): 73.

26. Canadian Film and Television Production Association, *The Guide 93* (Ontario: Canadian Film and Television Production Association, 1993), 16.

27. Interviews with various industry people -- producers, cable production executives, studio operators -- as well as several newspaper articles have raised this as a positive development for New York City.

28. U.S. Dept. of Commerce, International Trade Administration, *U.S. Industrial Outlook 1993* (Washington, D.C.: U.S. Department of Commerce, 1993) 30-1 to 30-11.

29. Richard P. Simon, *Movie Industry Update - 1993* (New York: Goldman Sachs Investment Research, 1993) 7.

30. National Cable Television Association, 5-A, 8-A to 9-A.

31. This diversity represents another competitive advantage for New York City; four of the five major cable networks based in Atlanta are owned by a single conglomerate -- Turner Broadcasting System.

32. EPM research on New York City companies.

33. Mike Rauch (member of Motion Picture Group, Showtime), personal interview, 18 June 1993.

34. Bridget Potter (Senior Vice President for Original Programming, HBO), personal interview, 30 June 1993.

35. Gordon Beck (Executive Vice President for Production, USA Network), personal interview, 28 June 1993.

36. Harold L. Vogel, *Entertainment Industry Economics* (Cambridge: Cambridge University Press, 1990) 187.

37. Simon, 7.

38. John Hoffman (President of Unitel Video), personal interview, 25 May 1993.

39. This observation raised by the Film Office was echoed by several producers and local studio operators in the interviews.

40. Mike Rauch, personal interview.

41. National Cable Television Association, 36-C to 41-C.

42. Herb Scannell, personal interview, 28 September 1993.

43. Simon, 5.

44. Vogel, 183.

45. Simon, 5.

46. For example, a single 30-second clip of uncompressed motion video playing at 30 frames per second requires over 500 megabytes of storage. The uncompressed file would use up almost the entire storage capacity of one CD-ROM. Playing it back at 30 frames per second (in order to be perceived as a moving image) would take over an hour and makes the motion video appear like a very slow painting of an image on the screen. With compression software and special video processors, an hour of motion video and audio would fit in one CD-ROM and take an hour to play back.

47. Optical fiber cables, which transmit signals through short bursts of light, are now being used instead of copper wire in telephone networks. The optical fiber cables allow much greater volumes of information to be transmitted at lower cost. In addition, transmission over fiber optic cables is less vulnerable to electrical interference.

48. Sean Scully, "Bell Atlantic Tests Video Over Phone Line," *Broadcasting & Cable* 21 June 1993: 25.

49. Red Burns, "Cultural Identity and Integration in the New Media World," University of Industrial Arts, Finland, 19-21 November 1991.

50. For the panoply of multimedia and interactive applications, see the special section on interactive technologies in the 31 May 1993 edition of Newsweek.

51. Reuters, "Cable Rivals Agree to Seek Standard for Interactive TV," *New York Times* 4 June 1993: D1. John Markoff, "Microsoft and Two Cable Giants Close to an Alliance," *New York Times* 13 June 1993: L31.

52. For recent articles on partnerships being formed by cable, computer, and telephone companies to test interactive entertainment applications, see the special section in the 31 May 1993 issue of Newsweek and the cover story of the 12 July 1993 issue of Business Week.

53. Bob Bejan and William Franzblau (President and Executive Vice President, respectively, Controlled Entropy), personal interview, 12 April 1993.

54. James R. Norman, "Lights, Cameras, Chips!," *Forbes* 26 October 1992: 261.

55. Alan Breznick, "Post Investment Boosts ACTV Inc.," *Crain's New York Business* 26 April 1993: 59.

56. Harold Vogel, *Entertainment Industry Economics* (Cambridge: Cambridge University Press, 1990) 60.

57. This is based on responses to a survey of capital spending in production facilities in New York City conducted by EPM.

58. This was expressed in several personal interviews with studio owners and operators. See also Dunlap, 6.

59. There are at least two publicly known proposals pending for independent studio construction in Manhattan: (a) the Chelsea Piers project which envisions the construction of 3 film stages and 9 television studios as part of a $50 million amusement-sports training-studio complex and (b) a bid for a $40 million conversion of the Coliseum into a television studio facility with interactive applications.

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The leadership in the Mayor's Office of Film, Theatre, and Broadcasting was a valuable guide in understanding industry practices. At all times, Commissioner Richard Brick, Deputy Commissioner Charles Darby, Director of Broadcasting Patrick Pleven, and Director of Film Amy Sultan were generous with their time and knowledge. The Mayor's Office of Film, Theatre, and Broadcasting was also actively involved in shaping the final recommendations of the report.

Executives and producers at cable television companies headquartered in New York City welcomed inquiries about the extent of their companies' original production in New York City. The executives interviewed for the study include:

Gordon Beck, Executive Vice President for production at USA Network
Neil Braun, Chairman and Chief Executive Officer of Viacom Entertainment
Bill Chase, Vice President for production in the East Coast at HBO
Scott Davis, Executive Vice President for network operations and General Manager of Nickelodeon studios at Viacom International
Steven Feder, Executive Director of entertainment production and Senior Producer at USA Network
Kerry-Ellen Meehan, producer/director at USA Network
Bridget Potter, Senior Vice President for original programming at HBO
Mike Rauch, member of the Motion Picture Group at Showtime
Herb Scannell, Senior Vice President for programming at Nickelodeon
Bill Siegler, Vice President for Production at Ultra Entertainment
Dwight Tierney, Senior Vice President for administration at MTV Networks

Independent producers and writers currently based in New York City shared their reasons for making New York City their production location of choice and their ideas about how the city can win back business. It was difficult not to be upbeat about New York City after speaking with the following producers:

Jeffrey Hayes, producer of network television series *Law and Order*
Mitchell Kriegman, writer and producer of several cable television shows, including the series *Clarissa Explains It All*
Edwin Lynch, writer/producer
John Markus, writer/producer
David Mish, writer/producer
Liz Nealon, executive producer of the series *Ghostwriter* for Children's Television Workshop

G. Bryan Unger, international representative of the International Association of Theatrical and Stage Employees (IATSE), discussed with the author the significant role that labor plays in the production of motion picture and television and his thoughts on the prospects of the industry in New York City.

Two interviews helped the author quickly understand the impact of emerging digital technologies on the film and television industry. Bob Bejan and William Franzblau, president and vice-president of Entropy, respectively, explained the elements that went into the production of an interactive film they produced, the first one ever shown at a theater. Professor Red Burns, chair of the Interactive Telecommunications Facility at NYU, emphasized that with the rapid development of digital and interactive technologies, the creative vision must be cultivated by making technology accessible to talented and imaginative people, reinforcing the craftspeople's expressed need to become adept in employing new techniques.

Heads of several independent studio facilities in New York City spent time with the author to discuss issues affecting them and the industry. Those interviewed were John Hoffman, President of Unitel Video; Stuart Lefkowitz, Senior Vice President for operations and engineering of Lifetime Television; Hal Rosenbluth, Chief Operating Officer of Kaufman Astoria Studios; Stuart Suna and Alan Suna, President and Chief Executive Officer, respectively, of Silvercup Studios; and Wes Christopher, Manager of MTI Uptown. Studio tours of Lifetime Television, Kaufman Astoria Studios, and Silvercup Studios gave the author an understanding of the physical requirements of production space.

In an EPM survey of capital spending, several stages and studios participated, including: Horvath & Associates Studios Ltd., J. Horvath Production/Stage Inc., Lee Rothberg Productions, Silvercup Studios, National Video Center, 111 Sound and Stage, Unitel Video, Globus Studios, CECO International Studios, HBO Studio Productions, 3-G's Stages, the Auditorium at Equitable Center, and the Apollo Theater Television Center.

Participating in EPM's survey of the programs offered by other states, provinces, and cities were film offices from Arkansas, Atlanta, California, Chicago, Dallas, Florida, Los Angeles County, Los Angeles City, Miami, Minneapolis/St. Paul, North Carolina, Orlando, Pittsburgh, Toronto, and Vancouver. Especially helpful were interviews with David Plant, Executive Director of the Toronto Film Liaison; Sarah Anson-Cartwright, senior policy analyst at the Ontario Film Development Corporation; and Catherine Adamic, executive assistant at the California Film Commission.

Rosemary Scanlon (now Assistant State Deputy Comptroller for the City of New York), Cathy Lanier, Kwame Opoku, Rob Hawkins, and Brian Lansbury of the Port Authority of New York and New Jersey shared with EPM and the Film Office information and insights they gained as they studied the economic impact of film and television production in New York City.

Several institutions assisted in piecing together a picture of the motion picture and television industry, especially the Middle Atlantic Regional Office of the U.S. Department of Labor; New York State Department of Labor; and the National League of Cities. Several individuals have been generous with materials and research that they have prepared: Joyce Harrington, Senior Vice President for public affairs at the American Association of Advertising Agencies; William Anderson, Director of Research and Publications at the American Film Marketing Association; and Iain McKellar, Assistant Director of Cultural Industries at Statistics Canada.

At EPM, Donna Reedy conducted research on the largest employers in the local film and television industry and labor cost differentials between New York City and its major competitors. Norman Silverberg assisted in conducting the survey of attraction and incentive programs of film commissions from selected states, provinces, and cities. Last but not least, John Abrahams did a careful editing of the full report.