Work and Technological Change: Musicians and the Film Industry, 1926-1940

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Research in American labor history has increasingly focused on the dynamic relationship between work and technological change. Studies of various trades and industries have shown how new methods of production revamped the labor process and capsized the traditional "world of workers." While some historians have explained how labor-saving machinery simplified work tasks and reduced skill levels, others have shown how it generated demands for new skills and talents, and occasionally increased rather than decreased labor's bargaining power. Still others now argue that mechanization did indeed create new skilled jobs, but fragmented new craft workers into complex bureaucracies and narrow, task-oriented roles [1, 2, 4, 16].

This paper is a contribution to these discourses. It describes and assesses the impact of new technologies on a somewhat atypical group of American workers during a particularly important and stressful time of economic upheaval. In the late 1920s and 1930s, the introduction of sound-on-film technology in the motion picture industry transformed the world of working musicians. With the coming of sound, the music sector of the film industry shifted from a diffused structure to a concentrated, highly-mechanized setting. This change swiftly and thoroughly destroyed thousands of musical jobs across the nation, regardless of skill levels or seniority. Simultaneously, it created a much smaller number of new and very different opportunities where film companies produced the products that displaced musicians.

Though my focus today is on musicians, my larger purpose is to speak to the conditions of labor in American society. The history of working instrumentalists in the interwar years offers insights into how industrial change has shaped workers' lives and how workers have coped with new business conditions. What is the relationship between work and technological change? Historians are not sure. They have not developed a theory that successfully addresses growing questions about the future of work in a capitalist society. I only suggest to those scholars who wrestle with this question: consider the history of American musicians. Their experiences challenge the assumption

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that new technology will automatically produce a happier, more creative workforce. Throughout the first three decades of film industry history, live music accompanied film screenings. In fact, musicians were already in theaters when motion pictures made their debut in 1896. Early films were simply an added attraction to the vaudeville acts that performed in so-called "combination houses." Over a thousand of these houses operated nationwide at the turn of the century, the majority employing a small orchestra, or at least a pianist, to enliven variety acts. The typical orchestra included six to eight musicians, who supported performances of drama, musical or farce comedy, dance routines, and miscellaneous acts [18, pp. 43-44].

As a wave of theater construction swept the nation in the teens and twenties, the demand for musicians, especially organists, exceeded the supply. Wages rose accordingly. Musicians who had received $15 for a week's work in 1900 were earning over $50 in 1920. Most theater musicians now performed seven days a week for the length of a theater season, or 30 to 52 weeks a year [13, pp. 1006-7]. No other avenue of musical employment matched theaters in terms of employment. By 1927, approximately 25,000, or an estimated one-quarter to one-third of musicians who earned the majority of their income from musical performances, worked in front of the silent screen [6, p. 1].

Since the release of early phonograph recordings in the late nineteenth century, musicians had argued that recorded music could never produce "that illusive something" live orchestras provided. When Warner Bros. first experimented with sound-on-film technology, leaders of the musicians' national labor union, the American Federation of Musicians (AFM), still insisted that machinery would never replace live musicians. Such hopes proved illusory. By 1933 the "talkies" had served to eliminate the jobs of approximately 20,000 musicians. The efforts of the union to prevent the spread of sound movies were futile. The public ignored its calls for boycotts of sound theaters, and strikes against the theaters simply hastened the loss of jobs. Suddenly, the good fortune of musicians had taken a sharp, negative turn. The onset of the Great Depression only complicated their efforts to cope with the technical innovation [11].

The coming of sound was not an instance of technology spreading automatically. On the contrary, heavy investments in traditional technologies had discouraged the development of sound movies. Film moguls saw at once that public demand for talking pictures would necessitate huge sums of new capital to remodel production studios and processes as well as movie theaters. Talkies also threatened careers of many established silent film stars, whose popularity studio publicity departments had carefully crafted and who were already under contract to the studios. The uncertainty surrounding the federal government's ongoing prosecution of Paramount Studios, which threatened to revamp film industry practices, further discouraged innovation.

Unlike the established motion picture firms in the mid-1920s, Warner Bros. was a small company in a poor competitive position pursuing bold, expansionary strategies. Gaining the backing of a Wall Street investment house with a reputation for turning regional businesses into national enterprises, Warners became a large, vertically-integrated firm with its own

international film distribution system and nationwide chain of theaters. During this aggressive expansion, Warners pursued new technology for the specific purpose of minimizing labor costs: Warners intended to substitute recorded music for the costly live performances that had accompanied silent films [10, pp. 101-123; 21, p. 152]. The bright lights of Los Angeles reflected the changing world of the working musician. In the early 1930s theater owners across the city installed new sound systems, thereby displacing pit musicians. But as old avenues closed, new ones opened. Los Angeles was the principal production center for the film industry. The city's eight major motion picture companies produced 85 percent of all American films. Anomalies in an era of severe depression, these expanding firms created new jobs for musicians. By 1933, roughly 500 were working in Los Angeles film studios, the number varying at any one time according to production schedules and other factors [19 (May 1933), pp. 6-9].

Local 47 of the American Federation of Musicians struggled to save theater jobs while trying to exploit new opportunities. Organized in 1894, the Los Angeles local had long enjoyed a position of strength in the city's labor movement. In a citadel of antiunionism, Local 47 had established a virtual monopoly over musical services and had negotiated "closed shop" hiring policies in theaters, radio stations, clubs, and other places which hired musicians. This success was largely attributable to the fact that before the era of recorded music, employers had suffered irretrievable losses whenever musicians went on strike. When the studios began making sound movies, Local 47 quickly established firm control over labor relations. Just as it had done in theaters, the union negotiated for good wages and working conditions in motion picture studios. The fact that management depended heavily on the skills and reliability of the musicians they employed gave Local 47 considerable clout in industrial relations, and with astute leadership the union gained a measure of control in the new workplace [3].

Mechanization in the film industry, coupled with the nationwide decline of theater work, helped to make Local 47 the fastest growing affiliate of AFM. By 1940, Local 47 was the largest trade union in southern California and the third largest branch of AFM, behind only the branches in New York and Chicago [12, pp. 80-83]. This rapid growth created new problems for the local union. Officials realized that the union's future depended on keeping labor supply and demand in equilibrium; the AFM, however, had always recognized the right as well as the need of musicians to travel freely between two jurisdictions. Transfer members therefore expected easy access to local jobs, while resident musicians demanded protection against outsiders. In 1929, Local 47 appealed to the national union for help.

In response to the appeal, AFM president Joseph Weber warned members to stay away from Los Angeles. Musicians, he announced at the union's 1929 annual convention, "have gone to Los Angeles by the hundreds and have been disillusioned . . . and were now subject to misery and want." More importantly, Weber placed the city's motion picture studios under jurisdiction of the AFM's national executive board, and then empowered officials of Local 47 to bar transfer members from the movie studios for a year [18, p. 18]. The one-year ban on the employment of newcomers discouraged

some instrumentalists from moving to Los Angeles. Yet hundreds of depression-worn musicians were willing to make the sacrifice for a chance to secure work in the studio, at a later date.

Those fortunate few who did secure jobs in film studios worked in highly structured environments with distinctive patterns of hiring, wages, working conditions, and definitions of skill. In terms of the hiring structure, musicians typically found work from studio contractors, usually men with limited musical skills who had agreements with studios to supply orchestras for film production. Through the kind of favoritism this system encouraged, a handful of contractors soon dominated the market, and the musicians they favored had regular employment. To coordinate the hiring process for their orchestras, contractors kept lists of telephone numbers of available sidemen. For each position in an orchestra, they arranged the names of instrumentalists on first, second, and third-call bases. In the early 1930s, when each of the city's major motion picture companies maintained 30- to 40-piece orchestras, contractors employed about 300 musicians who worked 25 to 40 hours a week. They used another 100 to 200 instrumentalists on part-time bases, chiefly when studios augmented for major productions or when regular orchestra members were absent [19 (April 1938), pp. 18-19].

The contractors' control over hiring was a major source of dissatisfaction for instrumentalists, whose employment and income depended on this small clique of insiders. Studio musicians therefore carefully nurtured relationships with contractors and kept their complaints about the hiring process to themselves. As one instrumentalist put it: "You stand a chance of losing a quarter or half the income for a year if a big contractor, like X, becomes cool to you" [5, pp. 144-147].

In regard to wages and working conditions, studio musicians enjoyed some of the best in the profession. Seated behind music stands with their backs to movie screens, motion picture musicians were the envy of all other instrumentalists. In the late 1930s, when public school teachers earned less than $3,000 a year, sidemen in movie orchestras might make $10,000. As one clarinetist explained: "Motion picture work was a marvelous way to make a living" [20].

This work, however, was often stressful. With producers paying for every wasted minute, instrumentalists had to perform with precision and efficiency. That fact put a premium on sight-reading skills. An experienced guitarist remembered arriving at one early morning film session "just in time for the downbeat" and finding a complicated, opening musical passage written especially for him. "The first cue," he said, "was a solo that started on the highest fret on the classical guitar" [17, p. 18]. Hard-to-read charts and difficult musical passages put special strains on newcomers struggling to establish reputations. "There's a lot of pressure for the guy just breaking in," one studio musician said, "[If] you can't do it, there are 50 other guys waiting to have a shot at it" [5, p. 108].

Some instrumentalists discovered that sound technology forced them to alter their playing techniques. Studio microphones, musicians have noted, picked up extraneous noises audiences did not hear in concert halls. As one violinist said, "[In the studios,] "you have to be a little bit more careful with

the bow pressure, you do not dare press and get the extremes . . . that you could get in a hall in which the airspace swallows up a lot of the surface noise." "The vibrato [too]" he stated, "has to be somewhat heightened, it has to be somewhat faster than you really need for a public hall" [9, pp. 108-30].

In addition to the men and women who worked in large, indoor film studio orchestras, more than 100 sideline musicians worked for motion picture companies. Sideline jobs required musicians to go wherever scenes were filmed and play "atmosphere" or "mood" music for the purpose of inspiring actors. Occasionally, sideline work enabled musicians to act as well, since union rules encouraged movie makers to use union musicians for music-playing characters on film. Sideline work was usually intermittent as well as undemanding. "On sidelines," one musician recalled, "I spent most of my time playing cards and reading books" [22].

Closer to the top of the film music hierarchy were composers, whose positions were not unlike those of staff employees of the studios themselves. Composers usually worked frantically for several weeks at the end of filming, matching music to movie scenes. For that task, they used small machines (movieolas) that displayed the film and mechanical devices (click-tracks) that helped to time and coordinate music and movie sequences. However glamorous it seemed to outsiders, the task of putting film to music was usually rigorous and nerve-straining. One composer remembered working nearly nonstop for 5 days and nights on one score of music, only to learn that footage had been added to the film and that he had to revise the music. "I do not intend to work at this breakneck speed again," he said recalling the experience, "nor do I recommend anybody to do so" [7, p. 7].

Composers usually had musically-trained assistants. Orchestrators, who were seldom bound to one studio, worked under close direction of composers, writing or rewriting scores for individual instruments. Musical copyists made legible scores for orchestra members and in doing so altered particular passages as problems arose in the final stages of production. A musical director might coordinate all of this activity, though some composers were also musical directors and even orchestra conductors. By the 1940s, a few major composers fulfilled numerous roles and earned several thousand dollars per film [8, p. 14].

The coming of sound movies proved especially disconcerting to African-American musicians. In this era of segregation, black musicians had frequently secured work in vaudeville and silent film theaters that catered to black audiences. When these theaters converted to sound, black instrumentalists found almost no new, compensating opportunities. The absence of blacks and other minorities in film work emphasizes the importance of social acceptability in securing new lines of employment. The oversupply of instrumentalists allowed band leaders to be highly selective in choosing members of film orchestras. With so large a pool of talent available, they could and did use personal and social factors in hiring or refusing to hire musicians. In sum, and within the broader perspective of labor experience in American society, the history of musicians between the wars shows that the impact of technological change could be ambiguous, ironic, and even positive, but devastating as well. Although technical innovations underlying capitalist

development have often served labor's interests, they have also narrowed job opportunities, forcing widespread and sometimes painful social dislocations. Entrepreneurs did not use technology to improve the status of workers, but to maximize profits, and thus musicians as a group suffered from mechanization.

Yet in the new world of work that emerged, a few instrumentalists, those especially talented and well-connected, found themselves prospering. They worked in a new environment, with new patterns of hiring, divisions of labor, and wages and working conditions. Their local union established considerable control over labor relations, but the growing labor surplus undermined musicians' job security and bargaining power. Indeed, the ability to prosper depended on much more than trade union activity. Most importantly, it hinged on the indispensability of particular skills in the production process: a tenuous link in the lives of workers [14, 15].

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