Stage to Studio: American Musicians and Sound Technology in Motion Pictures, Radio, and Recording, 1890-1946

James P. Kraft[1]
The Ohio State University

My dissertation looks at how new methods of sound reproduction altered the American film, radio, and record industries in the second quarter of the twentieth century. In particular, it focuses on how the use of new technology upended the lives of professional instrumentalists, and how musicians responded to sweeping industrial change. It relies on a constellation of historical approaches and strategies, and on an assortment of primary source material--especially trade journals, union records, and oral history. From a broader perspective, the study represents a chapter in the larger story of the "modernization" of America.

The dissertation begins by exploring the years between 1890 and 1926, a period before "talking" movies, network radio, and long-playing records transformed media industries. In terms of employment opportunities, these years represented a heyday for musicians, a time when technological and industrial change created several thousand new jobs. This was also an era when a rising standard of living and increased leisure time allowed more Americans to patronize places where musicians performed. In this "golden age," when the demand for musical services exceeded the supply of skilled instrumentalists, the problems of musicians were relatively minor.

I compared this environment of new industries and ample job opportunities to the years 1926-1946, and in so doing, uncovered a story of great change in both media industries and the musicians' working world. In the new setting, large business enterprises, new technologies, and powerful employers' associations overshadowed small firms and local unions of musicians. The new environment required entrepreneurs and musicians alike to adjust to new methods of sound reproduction. Like artisans in the nineteenth century, instrumentalists discovered that they now competed not only against local talent, but also against efficient factories with highly-skilled workers in distant places.

---

[1] This essay is based on my University of Southern California dissertation, supervised by Edwin J. Perkins and Steven J. Ross.

Characteristics of the Industries, 1890-1926

Throughout the first quarter of the twentieth century, smallness, open markets, and a relative lack of centralization and integration characterized media industries, especially in the fields of radio and records. Even the film business, which passed through its infant stages in the first decade of the new century, was a much smaller and more open industry prior to the introduction of sound movies. Within these fields, associations that tied employers together were relatively weak and largely incapable of offsetting the demands of labor groups.

In each of these fledgling media industries employers depended on the live performances of instrumentalists. In large and small theaters across the nation, theater-owners paid "pit" musicians to enliven the silent screen. The rise of "networking" in radio, though broadcasters often relied on the scratchy sounds of early phonograph records to fill the airwaves, they also hired local instrumentalists to attract radio audiences. By 1926 over 20,000 musicians found steady full-time employment in the exhibition sector of the film industry. Another 3,000 or so instrumentalists worked full or part-time in local radio stations. In short, the new technology that stimulated the rise of media industries proved a blessing for musicians.

In this environment of small businesses and weak employer associations, professional instrumentalists organized powerful local and national unions that protected wages and working conditions. By 1900 the American Federation of Musicians (AFM) had emerged supreme over the older eastern-dominated National League of Musicians and encompassed almost all local organizations of instrumentalists within its ranks. The AFM gained its strength by refusing to cling to the outdated notion that musicians were strictly "artists" who had little in common with other skilled workers. Like other affiliates of the American Federation of Labor, the AFM embraced policies of "bread and butter" unionism.

The "Coming of Sound," 1926-1946

The late 1920s and early 1930s marked a turning point in the history of media firms and musicians, as the deployment of new sound technology turned the "music sector" of the economy from a diffuse structure to a centralized setting, with large business enterprises and economies of scale dominating the landscape. The coming of "talking" movies significantly increased film production costs, and thus solidified the grip of major motion picture companies on the film industry. The rise of "networking" in radio made markets more national in scope; and consequently, small stations found it increasingly difficult to attract audiences without "hooking-up" to the programs emanating from the networks' powerful stations in big cities.

As media industries became more centralized, entrepreneurs created powerful employer associations to coordinate their common goals and financial resources. For example, the National Association of Broadcasters, an alliance of the nation's wealthiest broadcasters and record manufacturers, gained increasing influence over government and the press. The growing power of employer associations represented a new threat to the interests of labor groups.

New methods of sound reproduction were well-suited for the needs of the nation's media firms. With sound movies, theater owners no longer worried about the quality of music that accompanied the screen. "Canned" music was never absent or late, nor did it threaten to walk-out for higher wages. The use of recorded music in radio gave broadcasters greater flexibility in the scheduling of programs as well as a wider variety of program material.

The turn to recorded music would not have been possible had consumers of music strongly preferred "live" performances, and been willing to shoulder the higher cost. But movie-goers lined-up for the latest "talkies," especially when theater owners lowered the price of admission. In radio, the preference for music of big city bands, regardless of whether the program was "live" or "transcribed," was sometimes so strong that broadcasters who relied on the services of local talent lost substantial revenues.

The introduction of new methods of sound reproduction in media firms turned the world of musicians upside-down. The coming of "talking" movies to vaudeville and silent film theaters completely eliminated the need for pit musicians. From 1928 to 1932, in a classic case of the substitution of capital for labor, an estimated 18,000 musicians were displaced when theater owners installed new "Movietone" and "Vitaphone" sound systems. The onset of the nation's Great Depression hastened the turn to new technology and complicated the plight of pit musicians. New methods of transmitting sound also reduced radio's dependency on local talent. By the late 1940s radio musicians in all but a few large cities had lost their jobs.

Perhaps no group of workers has been affected so dramatically by technological and industrial change. The introduction of "talkies" did not simply make jobs more monotonous, speedup the pace of work, or reduce skill levels. With one bold stroke and little warning, it thoroughly and rapidly eliminated whole categories of jobs. Unlike bookkeepers, typists, and other displaced workers in the service sector of the economy, musicians could not be retrained easily. True, the "sound revolution" created a relative handful of lucrative new opportunities in "studios" of big cities, but these new jobs were reserved for only a few hundred of the most talented and mobile instrumentalists.

The Musicians' Response

Professional musicians did not easily yield their hard-won positions in the film and radio industries. Throughout the second quarter of the 20th century, instrumentalists rejected the notion that new technology should benefit only consumers and employers, and demanded a "fair share" of the benefits of modernization. Union leaders struggled systematically to capitalize on new conditions rather than lose ground to the inroads of "canned" music. For a decade after the introduction of the "talkies," at a time when the speed of technological change was overpowering, the AFM pursued tactics of accommodation, not confrontation. But in the late 1930s, after some sense of stability had descended over media industries, the union took the offensive against employers who turned to recorded music. In 1937, following months of threats to pull all musicians from radio and recording, most of the nation's broadcasters agreed to spend 5.5% of their gross income on live musicians. But the union's newly won status in radio was short-lived. In 1939 network-affiliated stations refused to renew labor contracts, calling the 5.5% agreement "an onerous burden" and an attempt to force radio to hire "unneeded musicians."

In the early 1940s, under the more aggressive leadership of James C. Petrillo, the AFM stepped-up its campaign against "canned" music. Petrillo demonstrated his more confrontational approach to the inroads of recorded music by pulling popular "remote" broadcasts of famous "big bands" from network channels whenever network-affiliated stations refused to cooperate with local musicians' unions. However, withdrawing labor services did not eliminate the practice of substituting phonograph records for live performances, and in 1942, in a new assault on the commercial use of records, Petrillo announced that musicians would no longer make the machinery that destroyed their jobs. For more than 27 months professional musicians boycotted leading record companies in an attempt to gain more employment in radio and a percentage of the profits from records sold.

Finally, in 1944, RCA Victor, CBS, and NBC agreed to a "fixed fee" plan, which called for record manufacturers to pay a fee to the AFM ranging from one-fourth of a cent to five cents for each record sold. The union then distributed the money to its locals according to a pre-arranged formula. In turn, local unions hired resident musicians to perform for free public concerts. The record ban of 1942-44 was not a complete victory for the AFM, since the union had hoped to create many new jobs in radio.

Implications for the Study of History

This dissertation has profited from integrating the literature and various approaches to the fields of business and labor history. Integration of the fields has helped me to understand industrial change as something beyond the strategies and structures of firms. I have tried to bring human terms to the study of business history. At the same time, I have shown that it was not simply capitalism, in some abstract sense, that affected worker's lives. Indeed, business history cannot be understood in isolation from labor history, and vice versa.

The dissertation has also stressed the need for historians to explore the political environment within which employers and workers operate. Government policy initially aided musicians by restricting radio's use of recorded music. Yet, eventually, the federal government became the closer ally of employers and undermined the ability of instrumentalists to protect radio jobs. In 1927 the Federal Radio Commission failed to reaffirm a long-standing policy which discouraged the "indiscriminate use" of recorded music on the airwaves. In the 1940s the Lea and Taft-Hartley acts outlawed labor's ability to "demand" that employers hire a fixed number of workers, a practice derisively called "featherbedding." The two new labor laws prevented the

AFM from insisting on "minimum size" orchestra clauses in labor contracts and thereby paved the way for employers to reduce the number of musicians they hired.

The dissertation has suggested that the development and deployment of new technology has been the driving force in the history of business and labor. In this study, technological change created entirely new industries and then served to alter their basic structure. The firms that failed to adapt to new conditions were typically forced from the marketplace. For labor, the advance and use of new technology initially generated jobs, but in the end, the "coming of sound" left avenues of employment littered with technological casualties. Only a relative few instrumentalists benefitted from the dramatic impact of the "sound revolution."

Finally, this study has raised perplexing questions about how technological change has shaped culture. Musicians argued that the "indiscriminate use" of recorded music was a "backward step" for American music, an act which cut-off opportunities for instrumentalists to refine their skills and discouraged the most gifted youths from pursuing musical careers. Employers countered that the greater dissemination of music enhanced and diversified musical culture, while inspiring youths to pick up musical instruments. It was clearer, however, that new sound technology served to alter the size, orchestration, and style of musical groups.