



PROJECT MUSE®

---

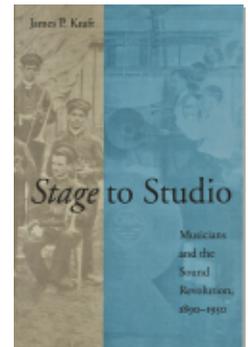
## Stage to Studio

Published by Johns Hopkins University Press

Stage to Studio: Musicians and the Sound Revolution, 1890-1950.

Baltimore: Johns Hopkins University Press, 2003.

Project MUSE., <https://muse.jhu.edu/>.



➔ For additional information about this book

<https://muse.jhu.edu/book/60326>

---

Access provided at 18 Sep 2019 21:16 GMT with no institutional affiliation



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

## Two

### Boom and Bust in Early Movie Theaters

THE FIRST QUARTER of the twentieth century was the heyday of American musicians. Demand for musical workers was high and rising while the supply of skilled instrumentalists was relatively low. The public wanted and could afford entertainment with a large component of live music. Technological advances were also generally friendly to musicians. Phonographs, silent movies, and radio increased public appreciation of music and boosted employment opportunities. Electric streetcars, automobiles, and air conditioning brought more and more Americans to places featuring live music. The American Federation of Musicians (AFM) controlled the workplace and protected the interests of musicians there.

This state of affairs took a sudden, negative turn in the late 1920s, when the advent of sound movies helped transform the music sector of the economy into a more centralized, capital-intensive structure dominated by large business enterprises. Sound films “silenced” musicians as quickly as they ended the careers of silent-screen stars who spoke poorly. The “talkies” enabled theater owners to discharge pit musicians in wholesale fashion, a classic case of substituting capital for labor. By 1934 about twenty thousand theater musicians—perhaps a quarter of the nation’s professional instrumentalists and half of those who were fully employed—had lost their jobs. The fact that this technological shake-up coincided with the onset of the Great Depression added to the woes of musicians, most of whom had few skills other than their musical abilities.

Instrumentalists did not stand passively by while capitalist development destroyed a major source of employment. Through their unions they waged a multipronged campaign to save theater jobs. To many Americans, especially theater owners, the struggle to save pit music was pure Luddism, blind opposition to technological progress. To professional instrumentalists, however, this was a fight not only to protect their livelihoods but to preserve their art and their dignity, and to maintain a measure of control over their own employment.

SILENT FILMS made their debut at a vaudeville theater in New York City in April 1896. At the end of a program of variety acts, flickering images projected onto a canvas screen amazed a theater audience, some of whom reportedly ducked when they saw waves rolling toward Manhattan Beach. Only a few years later several hundred vaudeville theaters advertised “moving pictures” along with comedy acts, dance shows, and other routines. The movies had quickly become one of the nation’s most influential mediums of entertainment and culture.<sup>1</sup>

Invariably, theater musicians provided live music to enhance the effect of these early films. When vaudeville dominated the entertainment business, as it did at the turn of the century, most vaudeville theaters employed small in-house orchestras to enliven their stage shows. A typical house orchestra included five or six musicians. Quintets usually included a pianist, trap drummer, and violinist as well as a cornet and a trombone player. Larger orchestras might feature a clarinet, bass violin, flute, banjo, or organ as well. While silent films played, house orchestras tried to provide the appropriate music: dissonant chords and tremolos when villains plotted, soft violin music during romantic scenes. Drummers bumped the bass drum, crashed symbols, and played long rolls to add comic relief, tumult, and suspense. There were of course incongruities. One early film commentator accused local musicians of mangling movie scenes. “How often was the pleasure of seeing a stately military picture marred by the playing of a waltz or a ragtime selection,” he asked, “or the picture of some pathetic scene, by the playing of ‘Steamboat Bill’[?]”<sup>2</sup>

By 1905 growing numbers of entrepreneurs were converting pawnshops, cigar stores, and other such places into “nickel” theaters that showed movies from early morning until late at night. Some vaudeville, burlesque, and legitimate theaters turned to all-movie formats, at least a few days of the week. Film historians have estimated that in 1910 ten thousand theaters used movies as the core of their entertainment. Some of these houses hired

ensembles to accompany films; others hired a pianist and/or drummer. Still others relied only on the music of player pianos. Pioneered by John McTammany of Massachusetts and perfected by William B. Tremaine of New York, player pianos were as new as movies themselves. Plugged into electric circuits, these novel instruments pumped air through strips of perforated paper (music rolls), which activated the keys of the piano. The music produced was no doubt better than that of some theater orchestras, for many prominent musicians recorded music for player pianos. Nonetheless, the low volume capacity of the instruments and the fact that they played only a few songs over and over, without regard for the character of films, made them undesirable to many theater owners.<sup>3</sup>

By 1910 piano manufacturers such as Rudolf Wurlitzer and J. P. Seeburg were producing more versatile automatic instruments especially for movie theaters. Models known as photoplayers proved the most popular. Priced from \$1,000 to \$5,000, photoplayers contained several music rolls and could play thirty or more songs without repetition. More important, photoplayer operators could switch from one music roll to another to create particular moods. "If the scene is a sad one and you want sob music," one manufacturer explained, "all you have to do is touch a button for the roll containing sob music." Side chests, meanwhile, contained an assortment of bells, horns, and percussion devices that could be activated by pushing pedals or by pulling straps located above and below the piano keys. The instruments thus produced the sounds of doorbells, fire trucks, auto horns, galloping horses, pistol shots, and various other noises. The more popular photoplayers had organ pipes in side chests that were activated by a second keyboard on the central unit. Organ pipes added volume as well as versatility to theater music.<sup>4</sup>

Some theaters used photoplayers as substitutes for live music. "We simply turn on the current in the morning and shut it off at night and the instrument does the rest," the manager of the Grand Theatre in Atlanta explained in 1915. Theaters that wanted to maximize the effectiveness of the photoplayers, however, hired skilled pianists to operate them. Most piano manufacturers apparently had the concerns of skilled pianists in mind when they designed the instruments. "Any good pianist with a little practice can play this instrument and produce all the various changes to suit the various shifting scenes of the pictures," one Wurlitzer advertisement explained. An advertisement for a popular Seeburg model promised to make "any pianist an organist" as well as "the master of every situation." The number of theaters that used photoplayers is unclear, but one study of



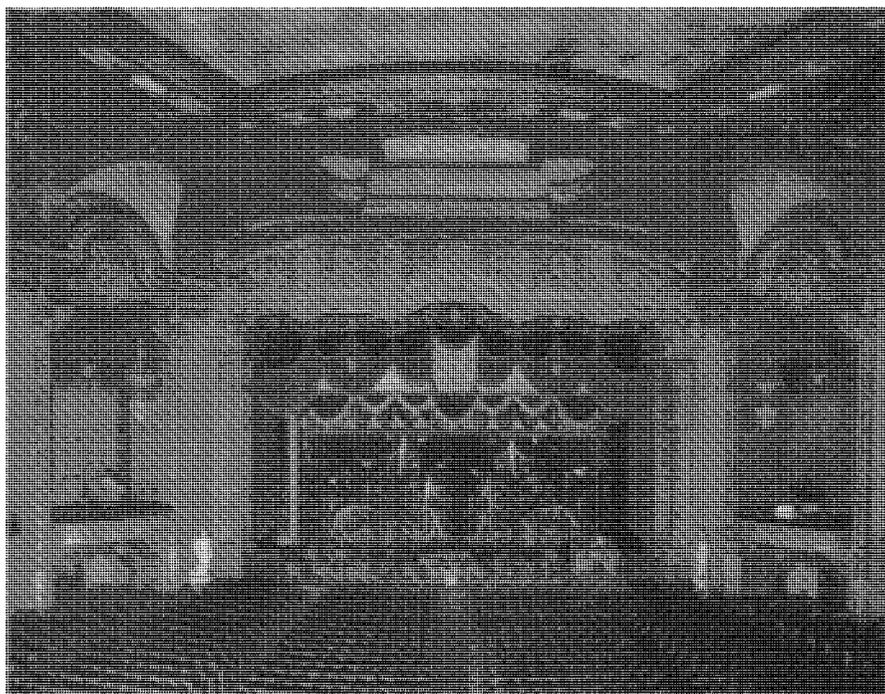
Player piano, 1909. These instruments could be either operated automatically (note the roll of music at the center) or played, and they became the chief means by which theater owners filled the void during the early silent-film era. (*Bettmann Archive*)

early movie theaters estimates that piano manufacturers sold six thousand to eight thousand of the instruments in the United States between 1912 and 1930. Photoplayers, however, had an average life span of only seven years and apparently broke down frequently. The fact that the instruments were expensive as well as unreliable no doubt encouraged many theaters to rely on live music for film accompaniment.<sup>5</sup>

In fact, more and more musicians were finding jobs in theaters. Changes in the structure of industry largely explain the trend. In the year preceding World War I, increasing concentration and centralization characterized the film industry. In the exhibition sector, entrepreneurs such as Marcus Loew were building networks of large theaters to capitalize on the public's interest in movies. Many of these theaters seated up to fifteen hundred people and featured vaudeville acts as well as silent films. In these houses live orchestras alone had the volume power and musical versatility to entertain audiences. Developments in the Midwest exemplified national patterns. In Milwaukee the nine-hundred-seat Princess Theater opened in 1909 with an eight-piece orchestra; the fifteen-hundred-seat Butterfly Theater opened in 1911 with a ten-piece band. In Chicago three new theater circuits emerged in the mid-1910s; collectively they owned or leased twenty theaters of eight hundred to fifteen hundred seats, and each of these theaters featured five- to eight-piece orchestras. Some of the houses were among the most lavishly adorned buildings in the city and, unlike many smaller theaters, appealed specifically to middle-class Americans.<sup>6</sup>

In the postwar years the drive for economies of scale encouraged the construction of still larger and more luxuriant theaters. By 1927, when Paramount, First National, Loew's, and Fox were fully integrated firms with heavy investments in film production, distribution, and exhibition, nearly one hundred theaters nationwide could seat more than twenty-eight hundred people. The rise of large movie palaces, to which some people reportedly paid the price of admission "just to use the restroom," increased competition for audiences, and the heightened competition meant bigger orchestras. In New York in 1927 the Capital Theater increased its orchestra to eighty pieces, and the Roxy advertised an orchestra of more than a hundred pieces.<sup>7</sup>

Other innovations similarly benefited musicians. In Chicago, for example, the Granada Theater put on a "Northwestern Night," for which it hired the house orchestra to play for two hours in the lobby after the final show while students from Northwestern University danced. Theater owners also tried to capitalize on the jazz craze then sweeping the nation, and



Piccadilly Theater, Chicago, 1927. Orchestra pits in period theaters like this one could be raised or lowered as the occasion demanded. The Piccadilly's pit organist used remote-control mechanisms to play the piano and harp adorning the two balconies nearest the stage. (*Theatre Historical Society*)

some of those who had eliminated vaudeville acts because of the popularity of movies rehired them, and with them more musicians. Equally important was the opening of the world's first mechanically cooled theater, Balaban & Katz's Central Park Theater in Chicago, in 1917. The advent of air conditioning allowed exhibitors to keep their theaters open all year, and thus served to increase musicians' job opportunities.<sup>8</sup>

These were indeed opportune times for musicians. The expansion of theaters meant steady, well-paid work, and in some locales the demand for house musicians soon exceeded the supply. By 1928, when approximately twenty-eight thousand theaters blanketed the nation, upwards of twenty-five thousand musicians worked in front of silent screens. Theaters in New York City alone supported thirty-two hundred musicians.<sup>9</sup> AFM president Joseph N. Weber estimated that theaters offered more full-time job op-

Table 2 AFM Membership in Selected Locals, 1918–1928

City and Local	1918	1920	1922	1924	1926	1928	Growth during Period (%)
Cleveland (4)	868	1,014	1,639	1,311	1,412	1,458	68
San Francisco (6)	1,250	1,600	1,800	2,350	2,425	2,700	116
Bosron (9)	1,716	1,835	1,901	2,143	2,250	2,459	43
Chicago (10)	2,850	3,166	3,943	4,256	5,728	7,146	151
Newark (16)	600	724	860	1,058	1,293	1,442	140
Kansas City (34)	525	704	706	765	845	952	81
Baltimore (40)	668	806	1,110	1,152	1,244	1,239	85
Omaha (70)	271	421	456	514	529	581	114
Memphis (71)	153	149	154	186	255	250	63
Minneapolis (73)	833	1,010	1,264	1,102	1,049	1,148	38
Seattle (76)	564	867	924	1,085	1,222	1,388	146
Atlanta (148)	170	232	273	314	346	333	96

Source: *Official Proceedings*, 1918–28.

Note: This table sheds light on the steady growth of AFM membership between 1918 and 1928. The growing size of AFM locals around the country was largely a consequence of expanding job opportunities.

portunities than all other sources of musical employment combined: dance halls, hotels, symphony orchestras, restaurants, and cafés. Weber noted too that wages of musicians had doubled in the past twenty years, a fact that more than compensated for postwar inflationary trends.<sup>10</sup>

Such patterns reflected the growing power of the AFM. Membership in the union had nearly doubled since 1918, from about 80,000 to more than 150,000 (perhaps half of whom were “amateurs”), divided into 780 locals representing every city of any size in the country. Using practical bread-and-butter tactics, many locals achieved what amounted to monopolies on musical services. They forced theater owners, who had no parallel organization of their own, to hire union members only. According to union sources, 98 percent of American theaters had closed-shop contracts with AFM locals. Because theater owners suffered irretrievable losses when musicians went on strike, the mere threat of a walkout could typically force them to agree to union demands.<sup>11</sup> The AFM, then, had taken advantage of a favorable setting to assume price- and market-regulating functions.

THE WORK SCHEDULE of theater musicians varied according to several factors. In the early 1920s most theater musicians performed seven days a

week during seasons that ranged from thirty to fifty-two weeks, depending on location. In balmy Southern California, musicians generally worked year-round, but in Columbus, where some theaters apparently were not air-conditioned, they worked thirty weeks and then negotiated extra engagements during the summer months.<sup>12</sup> Musicians performed between four and seven hours a day, with the time typically being divided between one or two evening shows and perhaps an afternoon matinee (many theaters hired only a single pianist or organist for matinees and late-evening shows). The time instrumentalists actually worked, however, was longer than these numbers indicate. Theater musicians usually rehearsed for each new film or vaudeville show, without compensation. But beyond that, rehearsal time meant extra wages. Musicians in Boston, to illustrate the pattern, earned overtime wages when daily performances exceeded five and a half hours, and when they had to rehearse on Sundays.<sup>13</sup>

Long workweeks sometimes sparked protests. Complaining of having their “nose[s] to the grindstone” 365 days a year, San Francisco musicians in 1926 demanded that theater owners hire “capable” substitutes one day a week. The demand spread to Los Angeles, where theater musicians asked to be able “to live like other human beings.” “Six days shalt thou labor,” one of them exclaimed. Drawing on this militancy, musicians in these two cities withdrew their services from the Orpheum and Pantages theater chains in September. The owners immediately agreed to six-day workweeks and meaningful salary increases. The swift capitulation reflected the importance as well as the limited supply of qualified instrumentalists.<sup>14</sup>

A recent interview with Gaylord Carter, an organist who in 1922 moved to Los Angeles from Wichita, Kansas, reveals the nature of theater employment patterns at this time. Carter found his first job in Los Angeles at age seventeen when the owner of a local theater asked Carter’s father if he knew anyone who could play the organ for silent movies. Carter said he took the job primarily to see the movies. “I didn’t have a dime to get in to see the shows,” he recalled, “so I got a job playing [organ] in the theater.” In 1926 Carter moved to the much larger Million Dollar Theater, which featured a thirty-six-piece orchestra. There he worked six days a week because, he said, “the union required that you have one day off.” As Carter explained things, orchestra members staggered their days off so that there would be “a few guys off each day.” Other Los Angeles musicians followed this pattern of employment.<sup>15</sup>

Seated in the orchestra pit in front of the stage, theater musicians worked the entire period of each show. They performed diverse repertoires,

Table 3 Wages and Rules of Theater Musicians in Columbus, Ohio, 1921

---

*WAGES FOR THEATER WORK:*

First Class Theaters: (Admissions exceed \$1.00)

Per Man, per week of six days . \$39.00

Leader, per week of six days . . \$58.50

Sunday shows, per man . . . \$7.50

Sunday shows, leader . . . \$11.25

Second Class Theaters: (Admissions do not exceed \$1.00)

Per Man, per week of six days . \$39.00

Leader, per week of six days . . \$58.50

Per Man, per week of seven days . . \$45.50

Leader, per week of seven days . . \$68.25

*SELECT RULES GOVERNING THEATER WORK:*

1. The house Leader shall have full charge of the men, to engage or discharge them and shall receive the entire Leader's salary.
2. One two-hour rehearsal gratis for each engagement, extra rehearsal, morning or afternoon, 2 and 1/2 hours or less per man, \$4.00; Leader, \$6.00. Night rehearsals, 3 hours or less, per man \$6.00; Leader, \$9.00.
3. Contracts for the Summer season must be for a period of ten consecutive weeks or more.
4. The minimum number of men law applies to all Theaters and Picture Houses and Halls in the City District, according to the highest price of general admission as follows:

\$1.00 and higher . . . 8 men

50 to 99 cents . . . 7 men

40 to 45 cents . . . 6 men

30 to 35 cents . . . 5 men

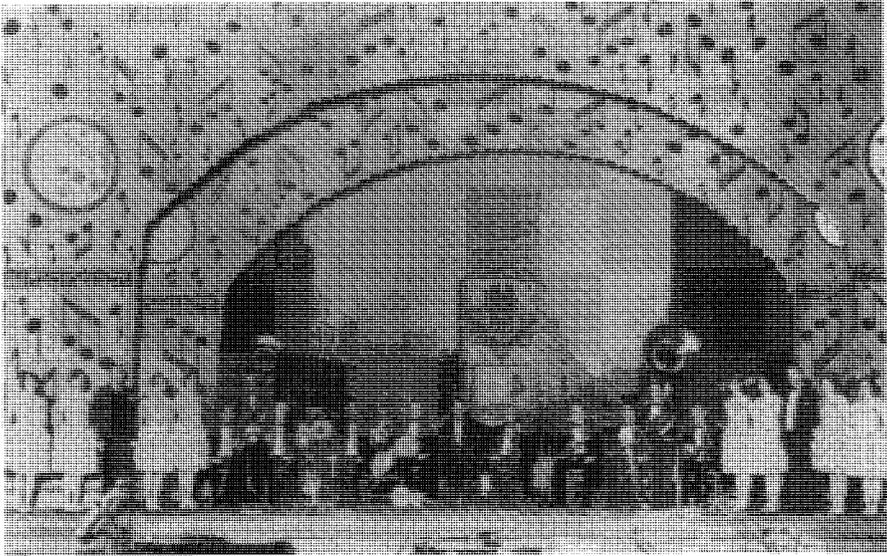
20 to 25 cents . . . 4 men

10 to 15 cents . . . 3 men

5. Substitutes in all Theaters shall receive 50 cents extra per show more than regular men up to a full week's salary. Extra men shall receive \$7.50 per day, one or two shows.
- 

*Source:* Price List of the American Federation of Musicians, Local 103, MIC 155, vol. 11 (1921), 1-5, Microfilm Department, Archives-Library Division, Ohio Historical Society, Columbus.

*Note:* These rules, adopted by the Columbus musicians' union in 1921, illustrate the nature of the protection that unions provided theater musicians. Musicians in Columbus divided theaters into three categories according to the price of admission. The wage rates presented here applied to first- and second-class theaters for a season of thirty weeks. The rates applied to men and women equally.



Aldine Theater Orchestra, Pittsburgh, 1928. Theater orchestras accompanied silent films and variety shows and often performed on stage. Here comedian Bennie Rueben, a vaudeville favorite, stands to the left of the musicians. (*Bennie Rueben Collection, Cinema-Television Library, University of Southern California*)

generally opening with classics like Chopin's "Nocturne Number 5" or Schumann's "Sunday on the Rhine." When variety acts took the stage, the orchestras supported them. For singing comics they played novelty songs, for dancers perhaps a ragtime tune. After five or six vaudeville acts the orchestra again played classics, or perhaps a set of popular tunes like "A Trip to Coney Island," "Thanks for the Buggy Ride," or "Rhapsody in Blue." To create proper moods, orchestra leaders drew variously on their assortment of clarinets, flutes, saxophones, trumpets, trombones, tubas, violins, pianos, and drums.<sup>16</sup>

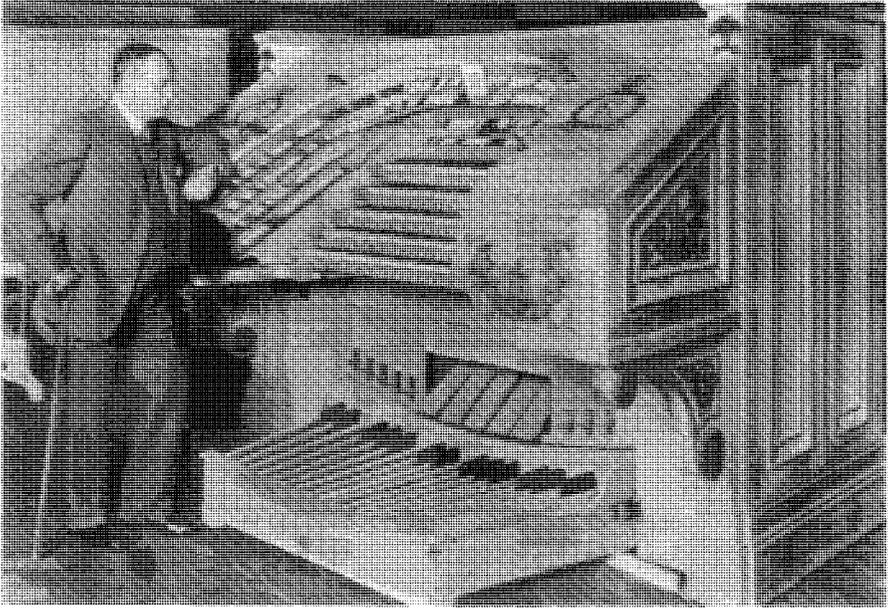
By 1920 motion-picture studios were providing musical scores, called "cue sheets," for their films. Producers hoped thereby to determine, or at least influence, the music that accompanied the screening of their films. A typical cue might call for a specific minuet by Haydn "for ninety seconds until title on screen," or for a piece by Tchaikovsky "for two minutes and ten seconds . . . until scene of hero leaving room." To musicians such cue sheets were "mutilated masterpieces." One music publisher who provided cue sheets to film companies admitted that his employees, usually men

with limited composition skills, simply cut up classics to fit film scenes. “We murdered everything that wasn’t protected by copyright,” he said. For this reason many exhibitors refused to buy or rent cue sheets, and even when they did, orchestra leaders often ignored them. One reason for this was that “local ego” sometimes clashed with the proffered musical scores. According to one theater musician, conductors sometimes told theater managers of the scores, “Anything we could do would be better.”<sup>17</sup>

In all of the music accompanying silent films, the sounds of the house organ were most recognizable. The introduction of Wurlitzer’s large Hope-Jones Unit Orchestra in the mid-1910s had significantly increased the value of organs to theaters. One difference between the “Mighty Wurlitzer” and earlier organs was the Wurlitzer’s better utilization of air pressure, which made for much more brilliant musical tones as well as greater volume capacity. A system of “pipe unification” also allowed organists to trigger many pipes at once with the touch of a finger; in contrast, the old system of rope and knob pulling had been able to activate only a few pipes at a time. More important, because Wurlitzer shaped organ pipes to reproduce the tones of particular instruments, organists had at their command the sounds of a full orchestra. The dozens of colored stop tabs arranged in horseshoe fashion across the instrument’s console were labeled violin, cello, flute, tuba, oboe, piano, and the like. Compared with the Wurlitzer, then, other organs sounded “sacred” at best and dull at worst.<sup>18</sup>

There were still other reasons for the name Mighty Wurlitzer. The versatility of this organ revolutionized sound effects for silent films. The instrument could create not only old sounds like steamboat whistles, quacking ducks, and gunshots but much more nuanced moods as well. Moreover, an advanced electro-pneumatic relay system liberated Wurlitzer consoles from direct physical connection with organ pipes. As a result, consoles could be raised and lowered from orchestra pits, much to the delight of audiences. The ascent of spotlighted console and organist became a celebrated part of the show in theaters that installed the necessary lift. The willingness of the audience to suspend disbelief, so essential to the success of the film, typically rose along with the Wurlitzer. For all of these reasons, growing numbers of theaters purchased Wurlitzers, and other organ manufacturers began producing their own versions of the instrument, including the Robert-Morgan, Kimball, Kilgen, Moller, and Marr and Colton companies.<sup>19</sup>

The impact of the new organs on theater employment patterns is unclear, but several factors prevented the instruments from displacing musi-



A Kimball organ, circa 1927. Such versatile theater organs brought a new sense of excitement to movie houses during the 1920s. (*Museum of Modern Art*)

cians on a grand scale. Many theaters could not afford the new organs, which cost from \$20,000 to \$40,000. Those that could afford the organs sometimes had difficulty finding organists who could play them, especially in the 1910s. The complexity of the instruments required organists to demonstrate a distinctive combination of physical dexterity, musical skill, and even mechanical ability. The expanding number of theaters in the postwar years only added to this problem of labor scarcity. Then, too, the best organists in the country were typically members of the AFM, and as such they complied with union rules governing the size of house orchestras as well as the wages and working conditions of orchestra members.<sup>20</sup> Not surprisingly, the men and women who played theater organs well enjoyed full employment, high wages, and job security.

The recollections of Helen Lee, who played at the Milford Theater in Chicago in 1925, elucidate the work routine and status of theater organists. Twenty-one at the time, Lee worked for seven nights a week in the pit alongside, but independent of, a seven-piece orchestra. From one to five P.M. she taught music at the Chicago Musical College, after which she ate dinner, took a taxi to the theater, and prepared for a seven o'clock per-

formance. "I got a bite to eat," she recalled, "and went straight to the theater." There she dressed and waited for the show in her own dressing room, a perquisite none of the orchestra players enjoyed. "There were several rooms for actors and vaudeville people," she said. "My room had shelves, a washroom, and my music library." From the library Lee selected the music she would play for the evening's silent movie. "The picture usually came with a cue sheet," she said, "but we changed the music." The theater manager, for whom Lee worked, did not always approve of her changes. One night she substituted Ravel's "Pavane on the Death of a Royal Infant" during the child murder scene in *King of Kings: The Life Story of Jesus*. "The audience doesn't understand that kind of music," the manager told her after the movie; "you'll have to lower your standards." Her reply reflected the independence as well as the pride theater organists had in their work: "I'm sorry, but I can't lower my standards. The audience will have to raise theirs."<sup>21</sup>

Lee's instrument was an elegant \$35,000 Kilgen organ, which she preferred to the Wurlitzer. "I loved the Wurlitzer," she recalled, "but the Kilgen was more mellow." Playing the Kilgen, Lee enlivened variety acts as well as silent films. She performed both solo and with the house orchestra. During the course of an evening, she said later, "I played more than they did." In fact, she and they spelled each other during the show. A union member, Lee earned union wages, \$100 a week, which was more than the orchestra musicians earned, and far more than the average skilled worker. "Men with families were earning twenty dollars a week," she said, "and I made a hundred."<sup>22</sup>

Although many female musicians worked in theaters, especially as pianists and organists, theater work posed special challenges to women. "It was dangerous," Lee said, "to come home late at night." Because of the danger, friends and family often discouraged women from working in theaters. "My parents were always hoping that something would happen to make me lose my job, they always worried," Lee explained. Like many other women, however, Lee accepted the risks and took her work seriously. On occasion, for example, she remained at the theater until four A.M. overseeing the work of organ tuners "to be sure they did it right."<sup>23</sup>

Excluding the stars on the screen, only orchestra leaders rivaled house organists in popularity. This was partly due to the fact that orchestra leaders did much more than simply cue the musicians they directed. Many of them served as masters of ceremonies, announcing vaudeville acts, introducing movies, and hobnobbing with performers on stage. At the Orpheum in Los Angeles, one especially hardworking leader had "to kiss

every girl in the act” while the band played the popular song “Gilded Kisses.”<sup>24</sup> The best-known leaders were themselves main attractions.

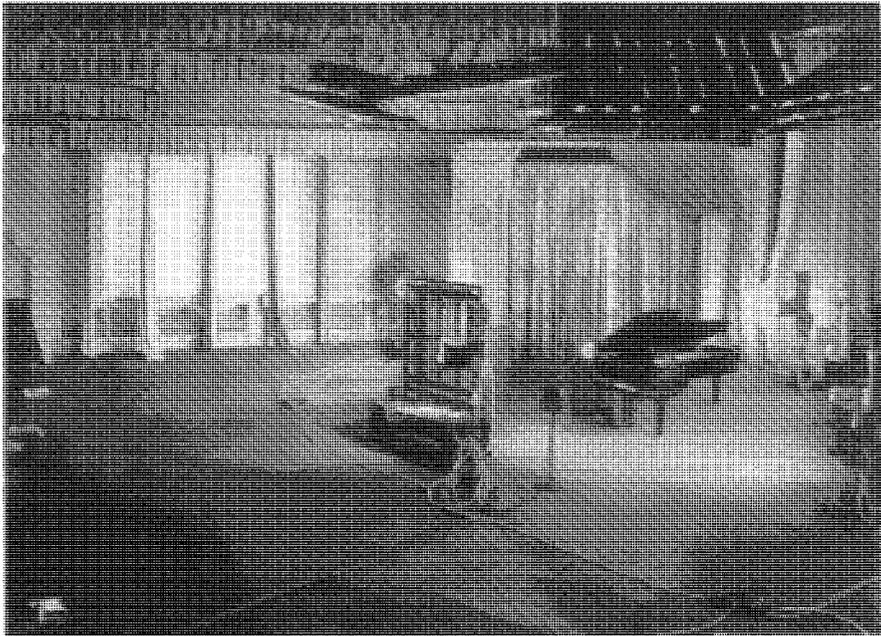
Theater managers contracted with the leaders for the services of the band, and the leaders paid themselves at least 50 percent more than they paid the sidemen, whose services they had subcontracted. Union rules not only required higher wages for leaders but allowed them considerable authority in the pit. Leaders could fine or dismiss sidemen, order rehearsals, and prescribe dress codes. The union, however, offered sidemen protection against overly demanding leaders. It required additional pay for long rehearsals and special costumes, for example, and insisted that leaders make sure orchestra members had refreshments. In regard to dress in the pits, no general rule prevailed. Some leaders required tuxedos, while others permitted more casual wear. One reviewer of film and vaudeville in Los Angeles noted that in some theaters musicians “dressed up like a movie star’s poodle” while in others they wore “everyday pants” and “no collars.”<sup>25</sup>

As sidemen looked to orchestra leaders for cues as well as paychecks, leaders received their direction from theater managers. Relations were usually cordial, but when managers meddled or tried to meddle in matters leaders thought were their own responsibility or prerogative, tensions might surface. Leaders and sidemen sometimes viewed managers as audiences viewed villains on the screen. *Theater Magazine* expressed the feelings of those who did when it described one theater manager as “a man who conducts his business in bursts of emotion and rarely with any other ambition than to earn a fortune quickly.” Managers generally, according to the magazine, were “sub-average or ab-average,” seldom having “any foresight.” The trade paper of Los Angeles musicians described managers as both “aggressive” and “stupid,” men “plucked from the ranks of salesmen and ushers.” One manager, the paper noted, “has been known to seat himself in the last row of the balcony and scrutinize the orchestra through an opera glass, trying no doubt, to see if the tuning pegs on the violin were all set in the same angle.”<sup>26</sup>

Whatever tensions existed between musicians and managers, the popularity of movies and the competition among theaters boosted musicians’ wages and employment opportunities. By 1928, when approximately a quarter of all professional instrumentalists worked in theaters, monthly wages of sidemen in the most competitive places reached \$300, while organists in such locales might make \$400. By comparison, skilled workers in building trades generally earned less than \$150 a month throughout the 1920s. The status of theater musicians never rivaled that of touring concert

artists or musicians in symphony orchestras, but pit musicians, especially organists, enjoyed immense popularity.<sup>27</sup>

THIS SITUATION began to change as soon as entrepreneurs brought “canned music” to the movies. Al Jolson’s warning, “You ain’t heard nothing yet” (*The Jazz Singer*, 1927), is often called the beginning of the sound era in movies, but this is not strictly correct. The 107-piece New York Philharmonic Orchestra had earlier recorded an accompanying score for *Don Juan*, a 1926 Warners film starring John Barrymore and Myrna Loy. Using new Vitaphone sound equipment, exhibitors now matched discs of recorded sounds—voices, special effects, and music—to scenes on the screen. Although the sounds were scratchy, critics sensed at once that *Don Juan* and *The Jazz Singer* opened “a new era in motion pictures.” If the full implications of these movies were unclear at first, entrepreneurs soon realized that the talkies would rid them of the high cost—and trouble—of maintaining theater orchestras and employing vaudeville acts.<sup>28</sup>



Fox Chase Corporation sound studios, New York, circa 1927. These studios produced some of the nation’s first sound films. (*Case Research Lab Museum*)

But sound movies did not spread instantly or automatically. On the contrary, investment in traditional production methods discouraged use of the new technology. Film moguls saw at once that if the public demanded sound movies, they would have to allocate huge sums of capital to remodel production studios as well as movie theaters. Talking pictures also threatened the careers of silent-film stars, who were already under contract and whose popularity studio publicity departments had carefully crafted. The resulting resistance to sound demonstrates that management as well as labor could oppose technological change. Just as workers feared that innovation would mean loss of jobs, wages, and status, so management worried that new processes would render profitable investments obsolete.

The fact that Warner Bros. pioneered sound movies is a datum that speaks to this pattern of reaction to technological innovation. When the first talkies appeared, Warners was a small company in a weak competitive position, but it had sufficient resources and marketing power to pursue bold, expansionary strategies. The company paled in comparison with industry leaders like Loew's and First National, but with the backing of a Wall Street investment house that specialized in turning promising regional businesses into national enterprises, Warners built a vertically integrated firm that not only produced and distributed films but screened them in its own nationwide chain of theaters. As it expanded aggressively, Warners gambled on Western Electric's new methods of reproducing sound, and like many other firms in a similar position, it supported technological innovation for the specific purpose of minimizing labor costs. Simply put, the firm decided to substitute cheap recorded sound for the live sound that pit musicians had provided for silent films. "I saw the salvation of the cinemas," Harry Warner reportedly remarked, recalling his motives for making the investment, "[in] the defeat of the vaudeville invasion that was seeking to dominate the cinema theaters."<sup>29</sup>

The savings the new sound technology promised theater owners were considerable. The annual cost of a sixteen-piece orchestra was perhaps \$50,000, while one of the new sound systems cost from \$7,000 to \$25,000, depending on the type of system and the theater's seating capacity. Owners of small theaters often had difficulty raising the money necessary to make the change, but the potential savings in labor costs were substantial. One historian estimates that exhibitors saved as much as \$3,000 a week by displacing musicians and vaudeville actors. Another calculates that when exhibitors installed sound systems, their net profits rose as much as 25 percent.<sup>30</sup>

But substitution of capital for labor is seldom just a matter of money. Despite occasional breakdowns and problems of synchronization, sound technology was far more reliable than actors and musicians. Talking movies did not demand higher wages, go on strike, or fail to show up for work. Nor did they argue over song selection. Sound movies thus brought rationality to theater operations and made the task of management easier. Such advantages of machinery over human labor always encourage technological innovation, especially when it increases profits, as it did in this case.

The public's response to the new technology removed all doubts about the practicality of conversion. Audiences stood in long lines to see talking pictures; box office receipts skyrocketed. Warners' investment in Vitaphone soon lifted the company to the top of what had become an extraordinarily competitive industry. Assets of the firm rose from \$5 million to \$160 million during the last two years of the 1920s. The Fox Film Corporation and Radio-Keith-Orpheum (RKO) also benefited enormously from the conversion to sound. Movietone, the sound-on-film method of registering and reproducing sound waves developed by the two latter companies, proved to be far less cumbersome than Warners' sound-on-disc system. In June 1929, technicians were installing Movietone systems in theaters at a rate of fifty a day. By the end of the year four thousand theaters had sound reproduction systems or were in the process of installing them. Movie attendance climbed from fifty million a week in 1926 to ninety million in 1930, or an average of almost one visit a week for every American.<sup>31</sup>

While some moviegoers may have missed the sounds of live orchestras, the vast majority, as the attendance figures suggest, preferred the new system. The quality of music in sound movies often surpassed that of local musicians, especially in small towns. The quality of film music, however, did not by itself explain the burgeoning size of theater audiences. Sound technology brought new excitement to the screen, invigorating individual film genres. The sounds of real guns firing, glass breaking, and tires screeching, for example, brought new life to gangster films. Musicals also became highly popular once producers learned now to synchronize recorded music with dancing and singing on the screen. In short, sound movies were novel, and novelty has always had its own value in the marketplace.

Advertising also spurred the popularity of sound movies. Producers and exhibitors who invested heavily in the new technology spent lavishly to advertise its merits. Studio publicity firms had little difficulty convincing the public that talking movies represented a new level of entertainment as well as applied science and were thus the only acceptable form of motion-

picture art. As Fox studios explained, sound movies were “the result of half a century’s experience in telephone making.” Advertisements portrayed silent films, at least indirectly, as obsolete and those who preferred them as eccentric. Moviegoers, however, needed little convincing; they were as eager to hear as they were to see their favorite movie stars.<sup>32</sup>

FILM HISTORIANS variously describe the transition to sound as a “coup” and as a “revolution.” Both terms reflect the extent to which technological change usurped the power of labor and enhanced the prerogatives of management. The advent of sound movies meant crisis for vaudevillians and theater musicians, whose source of employment collapsed just as the Great Depression began. On October 28, 1929, the day before the stock market crash, *Film Daily* reported that nearly a third of the nation’s theater musicians were already jobless.<sup>33</sup> In the aftermath of the crash, the larger depression reinforced the effects of technological displacement, and both vaudevillians and theater musicians joined the ranks of dinosaurs, dodo birds, and other extinct species.

The situation in Chicago illustrates the pace and impact of these changes. In 1926, musicians there had a secure position in movie and vaudeville theaters. In September of that year they won meaningful wage increases in negotiations with nine Shubert theaters employing nearly four hundred musicians. J. J. Shubert himself flew in from New York to sign the new contract, which raised weekly wages almost 10 percent for regular orchestra members (from \$72.50 to \$79) and doubled rates for rehearsals (from \$2 to \$4 a session). Encouraged by this success, the union struck smaller theaters, confident that management realized that “movies without music are not popular.” Within four days the intimidated exhibitors’ association had come to terms, accepting a three-year contract that boosted weekly wages for musicians from \$82.50 to \$87.50, doubled the pay for rehearsals, and obligated the city’s smallest (“Class No. 6”) theaters to hire four-piece orchestras. In the wake of this victory more than twenty-five hundred musicians worked in theaters in Chicago, and the president of the union local there, James C. Petrillo, stated, “The musicians’ union is stronger than ever. We are certain that the theater managers will never again attempt to put anything over on us.”<sup>34</sup>

Over the next two years Chicago musicians lost ground steadily, and Petrillo’s tone moderated. In July 1928, after thirty theaters had installed sound systems, Petrillo voiced the “alarm” and “fear” that now gripped musicians. Publicly he insisted that “mechanized” theater music was only a

fad, and that audiences would always demand to see as well as hear musicians. Privately he was less confident. In September 1928 he warned that if theater owners ignored the interests of musicians, “the question of declaring open war against mechanical devices in general can then be considered and, if need be, put into execution.”<sup>35</sup>

The sudden threat to theater jobs stunned AFM leaders and musicians alike. Ever since the advent of recorded music, the leaders had watched the progress of sound technology and denied, publicly at least, that machines would ever replace artists. Even after sound movies appeared, they insisted that interest in “mechanical music” would prove temporary. Theater musicians reacted similarly. “We all thought it was just a fad,” organist Gaylord Carter said later; “we thought it would pass.” A prominent member of the Los Angeles Theater Organists’ Club predicted of talkies that exhibitors would “lose their shirts in this latest folly” and see their theaters “turned into parking lots.”<sup>36</sup> An editorial in the trade journal of the Los Angeles local predicted that talkies would fade because they forced ocular and auditory nerves to “pull in double harness.” “Relaxation,” the journal explained, “is thereby decreased by 50 percent.” Other musicians agreed; machines, they insisted, would never produce “that illusive something” that live orchestras alone provided “unless the secret of life be discovered and its functioning controlled.”<sup>37</sup>

The proliferation of theater sound systems in combination with new, higher-fidelity recording methods promised hard bargaining sessions in the 1928–29 season. Fearing for the livelihood of over twenty thousand of their members, delegates to the June 1928 AFM convention debated their options. Some suggested that theater owners be urged to increase admission fees, in order to continue to employ musicians (though the increase would also enable them to cover the cost of new sound equipment). Others proposed that musicians accept lower wages. Still others proposed that union members be banned from recording music, a move that would have eliminated hundreds of new jobs in the media centers of New York and Los Angeles and with them an important new source of employment. The proposed ban on recording had the support of many locals, including the one in Chicago. The national president, Joseph N. Weber, insisted, however, that the ban would not only fail but also “hold us up to . . . ridicule.” Musicians, like other workers, would be unable to resist the advance of technology. “The development of machinery cannot be hindered,” Weber declared; “there is no force on earth—or ever will be—able to do this.”<sup>38</sup>

Instead of blindly opposing technological innovation, Weber argued,

musicians should rally public support for live music in theaters. At his urging, the convention organized a "Theater Defense Fund" to finance a public "educational campaign." Independent of the strike fund, the new fund came from a 2 percent tax on the wages of theater musicians and would be used to tell the public that the uncontrolled use of recorded music was not "progress" but "debasement of music." In a complementary move to increase union activism on this and related issues, the convention also raised union dues to bring an additional \$1.5 million a year into the national treasury.<sup>39</sup>

These actions came at the proverbial eleventh hour. Less than two months after the 1928 convention adjourned, labor contracts across the country expired, and because of the rapidly changing situation, exhibitors refused to meet union demands. In Milwaukee, St. Louis, San Francisco, and elsewhere, musicians were forced to accept wage cuts, reductions in the size of orchestras, and abbreviated employment seasons. In other places they struck, only to be completely defeated; in New Orleans, for example, two theaters replaced striking musicians with Vitaphone and Movietone sound systems, while in Michigan City three theaters responded to walk-outs by discontinuing live music because of "an inability to come to terms . . . with the musician's union."<sup>40</sup>

Events in Chicago demonstrated the escalating problems. There, contracts with fifty theaters expired on September 3, 1928, and anticipating a musicians' strike, exhibitors had already hired "cue boys" to operate sound effects devices. In negotiations with the union, management insisted on reducing wages as well as orchestra sizes. When Petrillo threatened to strike, management obtained an injunction from Judge James H. Wilkerson prohibiting a strike against the city's largest theater chain, Balaban & Katz, and enjoining the union from "intimidating" theater owners and expelling members who continued to work without contracts. The labor press described the case as one in which exhibitors "went out the back door" and bribed a judge with an "unsavory reputation." In the aftermath, however, Clarence Darrow, counsel for the union, could only advise Local 10 not to renew theater contracts. No law, he said, could compel a person to work without a contract.<sup>41</sup>

The Chicago injunction was another indication that musicians faced many of the same problems as other skilled laborers in periods of industrial and technological transition. Court orders favoring employers and limiting trade unionists had been facts of life for American workers since 1880, but the practice became more widespread in the 1920s, when courts issued

more than nine hundred injunctions against unionists. Backed by the courts, employers now challenged musicians and their unions as they had earlier challenged—and overwhelmed—railroad workers, miners, and other craftsmen and unions. Whether aimed at musicians or other workers, the injunctions showed that judges did not see management and labor as equal partners in a free-enterprise system. But concerning theater musicians specifically, judges no less than other Americans seemed to see them as obsolete and their efforts to hold on to jobs as Luddism.

When the Chicago labor contracts expired, more than seven hundred instrumentalists refused to work. Local 10 then asked other amusement trade workers for help, and stagehands and projectionists agreed to support the musicians. Exhibitors, many of whom were not yet prepared to declare their independence from live talent, settled with the musicians. This ability to muster support from other unions was a sign of Local 10's vitality, but it also indicated that the union could no longer fight its battles alone. The declining leverage of Local 10 was painfully apparent in the new contracts, in which the union accepted wage cuts, reductions in orchestra size, and in many theaters a shortened season as well. Moreover, the new contracts were for one year as opposed to the usual three.<sup>42</sup>

The next year, 1929, theater musicians from Charleston to Seattle suffered similar setbacks. Thousands lost their jobs; but despite the spectacle of mass displacement, the AFM continued the strategy of adapting to changing conditions. Opposing confrontational strategies, Weber continued to insist that the fate of theater musicians lay with consumers; the musicians could survive, he believed, only if consumers demanded live music. In early 1929 he therefore besought local officials to make no-strike pledges and undertake a nationwide campaign to sell the case for live music.<sup>43</sup>

Following Weber's lead, the national union adopted a "Declaration of Principles" and agreed to "spare no expense" in promoting the cause of theater musicians. The substitution of mechanical for live music, the union insisted, was "a perversion which constituted a fatal blow to musical culture," a step backward that would have a long-lasting detrimental effect on American culture. Unrestricted use of recorded music would not only deprive deserving musicians of jobs; it would also deaden public appreciation of music. More important, by eliminating the largest source of employment for musicians, "canned" music would discourage talented youths from considering musical careers. For its own sake the public should therefore demand "that the field for the creation of professional musicianship be not destroyed."<sup>44</sup>

This campaign reverberated through the labor press. In August 1928 the *Los Angeles Citizen* published an appeal from H. P. Moore, a local union official: "Substitution of mechanical music inevitably means a debasement of the art of music. Our national music will be seriously affected if 'canned music' . . . reduces the musicians' opportunities of employment. Where will the young musician of the future gain the incentive to perfect his art if a mere handful of recording artists are supplying all the music needed?"<sup>45</sup> A month earlier the Chicago local's *Federation News* had noted that more than two hundred theaters already had new sound systems, and it warned that the nation faced "a deplorable alteration of its musical entertainment."<sup>46</sup>

Over the next two years the AFM spent \$1.2 million trying unsuccessfully to rally public support for theater musicians. Because of its simultaneous fight with broadcasters over the use of recorded music on radio, the union shortsightedly rejected the use of radio advertisements in this campaign. Instead it placed its ads in nearly eight hundred newspapers and twenty-five magazines. In cities where newspapers were especially anti-labor, the union rented billboard space. While some of the advertisements warned of the "anti-cultural activities" of theater owners, others sought to exploit antimodernist fears of mechanization. "The Robot as an Entertainer," read one advertisement: "Is His Substitution for Real Music a Success?" Underneath the question was a cartoon in which an iron man ripped out the strings of a harp while a dog howled and an angel wept. The advertisements asked the public to show support for live music by joining the "Music Defense League," which required only that readers sign and mail a printed coupon to the AFM. Union officials planned to use the signatures to create pressure to "keep music alive."<sup>47</sup>

Although an estimated three million people signed Music Defense League coupons, in rapidly increasing numbers the public lined up for sound movies. This escalating support for sound films reinforced the exhibitors' belief that their own survival in the marketplace depended on adopting the new technology. Even small theaters with small labor costs and few resources began to convert to sound. In 1930 hundreds of theaters released their orchestras and replaced them with new sound systems. In accomplishing this change, management typically refused to sign contracts requiring minimum-size orchestras, and when their new sound systems were in place they simply fired musicians. A few theaters continued to use organists as soloists between movies, but only until it became obvious that live music was unnecessary. In 1929 the president of the Exhibitor's Associ-

ation of Chicago, the trade association of theater owners, summed up the situation: the new contracts, he said, "will permit us to hire and fire the men as they are needed."<sup>48</sup>

By 1930 the balance of power between exhibitors and musicians had shifted decisively to exhibitors. Management freed itself of musicians, answering strikes across the nation with "all-sound" presentations and lower admission fees. In Philadelphia, where Warner and Fox theaters demanded a 65 percent cut in orchestra size, the union withdrew the services of all of its musicians, only to find theaters continuing to operate with "no complaints from the public." When Publix theaters in Minneapolis and St. Paul introduced sound movies, management reported that public complaints were "practically nil."<sup>49</sup>

Musicians' problems multiplied after 1930, when the displacement of theater orchestras intersected with the much larger problem of the Great Depression. The film industry began to feel the depression just as the novelty of sound movies was fading. By 1932 weekly attendance had fallen from eighty million to sixty million, and it remained at the lower figure during 1933. At the same time, annual box office receipts dropped from \$730 million to \$500 million. The resulting decline in profits jeopardized the film industry itself. The recent expansion in the number of movie theaters combined with the continuing cost of sound conversion to leave many companies overextended and unable to meet their financial obligations. Warner Bros. lost \$8 million in 1931 and another \$14 million the following year, and Fox, RKO, and other major studios suffered similar losses. Paramount's financial troubles affected all of its employees, including musicians. Between 1931 and 1934 the company laid off five thousand workers, most of whom earned \$35 to \$50 a week.<sup>50</sup>

The drop in movie attendance also put enormous pressure on small independent exhibitors, who reacted in various ways. Some independents in the Midwest began offering "two seats for one," while others in New England introduced double features, a practice that soon swept the nation. Some exhibitors introduced games like bingo at intermission, with cash prizes for winners. Most theaters, however, simply lowered ticket prices. The drive to increase patronage went hand in hand with the determination to lower overhead costs, which included getting rid of musicians. Small theaters that had resisted conversion to sound now found that the alternative to sound was bankruptcy.<sup>51</sup>

The combined pressures of technological change and economic depression did not affect all business equally. Large national theater chains like

Balaban & Katz, despite their financial problems, had distinct competitive advantages over independent exhibitors. Small, usually family-run theaters generally had poor credit ratings as well as inferior managerial skills and were completely dependent on local market conditions. Confronted with local bank closures, reduced public spending, and the costs of conversion to sound, many of them closed their doors. A recent study sheds light on the trend. Between 1926 and 1937 the number of theaters in Chicago with fewer than 350 seats declined from 116 to 49, and the number with 350 to 1,000 seats declined from 173 to 160, but the number with more than 1,000 seats increased from 99 to 108. Nationwide the total number of theaters in operation in the 1930s declined by a third, from approximately twenty-three thousand to fifteen thousand, though as the trend in Chicago indicated, the ratio of people to seats remained fairly stable.<sup>52</sup>

Musicians and their union made desperate efforts to save theater jobs. They accepted lower wages, dropped demands for minimum-size orchestras, and agreed to restrictions on working conditions, but all to no avail. By the summer of 1931 approximately half of the nation's theater musicians had lost their jobs.<sup>53</sup> In New York City seventeen hundred musicians' jobs, 53 percent of all theater employment there, disappeared between 1929 and 1931. In Chicago the employment of theater musicians dwindled from nearly 2,000 in the late 1920s to only 125 in the mid-1930s. By 1934 only forty-one hundred theater musicians were still employed nationwide, and many of these lost their jobs during the next few years.<sup>54</sup>

Conditions in Washington, D.C., reflected these patterns. There, in August 1930 the Motion Picture Theater Owners' Association informed AFM Local 161 that orchestras in downtown movie houses would be dismissed in a month, when their contracts expired. "Two hundred men who have spent their lives in perfecting their art," one labor paper said of the dismissal, "will be scrapped"; and A. C. Hayden, president of the local union, found that theater owners "would not discuss the making of a contract to employ even one man." Their plan, Hayden said, "is to get rid of the musicians," who as a result will "be forced to compete for jobs in other industries for which they are not trained."<sup>55</sup>

In 1930 forty-eight theaters in the nation's capital employed 193 musicians; after the signing of new labor contracts, the number dropped to 72. Only three downtown deluxe houses still had orchestras, and even they had downsized their orchestras from a total of seventy-eight to sixty-one musicians. The remaining forty-five theaters had laid off 104 of 115 musicians. Over 60 percent of the city's theater musicians lost their jobs in this

brief period. Of 101 “technological casualties,” a survey found that 20 had left the city; 11 had full-time and 19 had part-time musical jobs; 21 had jobs in nonmusical fields; and 22 were unemployed. The fate of eight others was unknown.<sup>56</sup> In making this survey a representative of the Labor Bureau visited fifty displaced musicians in their homes and found them in generally low spirits. Many reported that the experience of displacement itself was a severe shock, and adjusting to new circumstances was painful. One former organist and pianist appeared “very melancholy” and “not yet recovered from the shock received when her job was lost.” Another former theater musician, who had a wife and three children, was “very despondent” and was “struggling to make ends meet without abandoning his profession.” Among the displaced musicians who had found work in other fields, few reported their new jobs to be as satisfying or profitable as their old ones had been. A former organist who had made \$42.50 a week now worked in a department store for \$16. Another who had once made nearly \$60 a week was now struggling to sell life insurance and had yet to earn significant income. Several musicians had moved in with their parents, in-laws, or children. Musicians with no jobs depended on charity. The Labor Bureau found that nine of the former musicians surveyed were “in dire need.”<sup>57</sup>

THE PLIGHT OF musicians not only reflected the impact of the Great Depression but also spoke to the human consequences of technological change under capitalist control. The technology of early film production had helped musicians; silent films created thousands of new jobs for them. These jobs disappeared, however, when the talkies appeared. What technology gave, it eventually took away. Innovations in production processes did spawn new opportunities in Los Angeles and New York, where large orchestras recorded music for sound films. Yet these opportunities were meager compensation for the loss of vastly larger numbers of well-paying jobs.

For musicians, technological change eliminated whole categories of jobs almost overnight, with little regard to seniority or skill levels. Indeed, with one bold stroke and little warning the talkies obliterated a major segment of musical employment. Theater jobs had been the core of musical employment since the late nineteenth century and had functioned as a training ground for young talent as well. Unlike the new clerical workers in the business sector, theater musicians could not be retrained and given new tasks within the businesses that employed them. In fact, no one in the film industry made any attempt to help musicians. Their displacement, one industry leader noted, was a fact of technological progress.<sup>58</sup>

As their careers evaporated, thousands of instrumentalists who had believed—naively and wrongly, as it turned out—that live theater music was a fixture of public entertainment learned otherwise. Sound movies rudely forced musicians to realize that they were vulnerable to forces of technological change. As a result, by the early 1930s instrumentalists had lost the optimism they had had for three decades and more. “Unless you are possessed of the sort of push that comes in the back door after being kicked out of the front,” a New York musician said, assessing the altered circumstances, “you will find nothing in this city of cutthroats.” A few instrumentalists still hoped that orchestras would return to theaters, but the change was not, as Weber once suggested, a “temporary revolution.” It was instead a whole new world.<sup>59</sup>