

Radio and Television Broadcasting

(SIC 483)

SIGNIFICANT POINTS

- Keen competition is expected for many jobs, particularly in large metropolitan areas, due to the large number of jobseekers attracted by the glamour of this industry.
- Job prospects will be best for applicants with a college degree in broadcasting or a related field, as well as relevant work experience.
- Many entry-level positions are at broadcast stations serving smaller markets.
- Because many radio and television stations are small, workers often must change employers, and sometimes relocate, to advance.

Nature of the Industry

This industry consists of radio and television stations that broadcast programs free of charge to the public. Broadcast signals travel over the airwaves from a station's transmission tower to the antennas of television sets and radios; personal computers can also be equipped to receive the transmissions. Anyone in the signal area with a radio, television, or properly equipped personal computer can receive the programming. Television broadcasts carried on cable and other pay television systems are classified in a separate industry. (The statement on cable and other pay-television services appears elsewhere in the *Career Guide*.)

Radio and television stations broadcast a variety of programs, such as national and local news, talk shows, music programs, movies, other entertainment, and advertisements. Broadcast stations produce some of these programs, most notably news programs, in their own studios; however, much of the programming is produced outside the broadcast industry. Establishments that produce programming for radio and television stations—but do not broadcast the programming—are classified in the amusement and recreation services industry and in the motion picture industry. (Statements on amusement and recreation services and motion picture production and distribution appear elsewhere in the *Career Guide*.)

Cable and pay television providers are required to compensate local television stations for rebroadcast rights. Revenue for commercial radio and television stations comes from the sale of advertising time during selected programs. The rates paid by advertisers depend on the size and characteristics of a program's audience. Revenue for educational and noncommercial stations primarily comes from donations, foundations, government, and corporations. These stations are generally owned and managed by public-broadcasting organizations, religious institutions, or school systems.

Changes in government regulation and technology are affecting the broadcast industry. The Telecommunications Act of 1996 relaxed ownership restrictions, an action that has had a tremendous impact on the industry. Instead of owning only one radio station per market, companies now can purchase up to eight radio stations in a single market. In television, owners are permitted two stations in a single market. These changes have led to a large-scale consolidation of radio stations. In some areas, five FM and three AM radio stations are owned by the same company and share the same offices. Independently owned commercial radio stations are increasingly rare.

The U.S. Federal Communications Commission (FCC) is a proponent of digital television (DTV), a technology that uses digital signals to transmit television programs. Digital signals consist of pieces of simple electronic code that can carry more information than conventional analog signals. A growing number of television stations are implementing digital broadcasting. This allows for the transmission of higher-resolution pictures, referred to as high-definition television (HDTV).

Broadcasters can use digital technology to transmit a single HDTV broadcast, or they can multi-cast several conventional broadcasts. Multi-casting is the transmission of more than one signal on a given channel. For example, a broadcast station could transmit a sporting event from several different camera angles on the same channel. Viewers would then be able to select which view their television set receives.

Digital broadcasting can transmit a variety of information besides television programming. For example, viewers with access to DTV could obtain electronic newspapers, computer software, telephone directories, and any other information that can be translated into digital code.

Working Conditions

Most employees in this industry work in clean, comfortable surroundings in broadcast stations and studios. Some employees work in the production of shows and broadcasting while other employees work in advertising, sales, promotions, and marketing.

Television news teams made up of reporters, camera operators, and technicians travel in electronic news gathering trucks to various locations to cover news stories. Although such location work is exciting, some assignments, such as reporting on natural disasters, may present danger. These assignments may also require outdoor work under adverse weather conditions.

Camera operators working on such news teams must have the physical stamina to carry and set up their equipment. Broadcast technicians on electronic news gathering trucks must ensure that the mobile unit's antenna is correctly positioned in order to avoid electrocution from power lines. Field service engineers work on outdoor transmitting equipment and may have to climb poles or antenna towers; their work can take place under a variety of weather conditions. Broadcast technicians who maintain and set up equipment may have to do heavy lifting. Technological changes have enabled camera operators to also fulfill the tasks of broadcast technicians, operating the transmission and editing equipment on a remote broadcasting

truck. News operations, programming, and engineering employees work under a great deal of pressure in order to meet deadlines. As a result, these workers are likely to experience varied or erratic work schedules, often working on early morning or late evening news programs.

Sales workers may face stress meeting sales goals. Aside from sometimes erratic work schedules, management and administrative workers work in an environment similar to any other office.

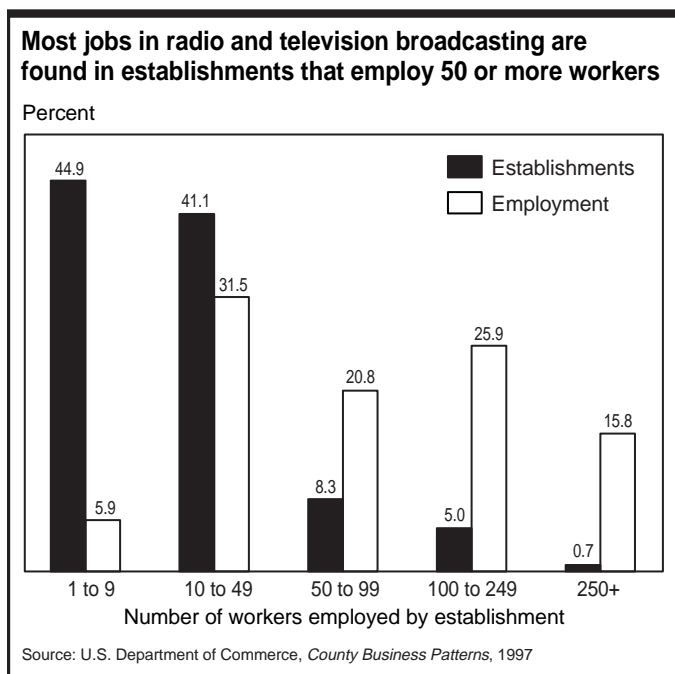
For many people, the excitement of working in broadcasting compensates for the demanding nature of the jobs. Although this industry is noted for its high pressure and long hours, the work is generally not hazardous. The rate of occupational illness and injury in broadcasting is much lower than the average for all industries. In 1998, cases of work-related injury and illness averaged only 2.1 per 100 full-time workers in radio and television broadcasting, significantly lower than the rate of 6.3 per 100 for all private industry.

Employment

The radio and television broadcasting industry provided 255,000 wage and salary jobs in 2000. Most jobs were in large establishments; more than 60 percent of all jobs were in establishments with at least 50 employees in 1997 (chart 1). Radio and television broadcasting establishments are found throughout the country, but jobs in larger stations are concentrated in large cities.

Occupations in the Industry

Occupations at large broadcast stations fall into five general categories: program production, news-related, technical, sales, and general administration. At small stations, jobs are less specialized, and employees often perform several functions. Although on-camera or on-air positions are the most familiar occupations in broadcasting, the majority of employment opportunities are behind the scenes (table 1).



Program production occupations. Most television programs are produced by the motion picture industry; actors, directors, and producers working on these prerecorded programs are not employed by the television and radio broadcast industry. Program production occupations at television and radio stations create programs such as news, talk, and music shows.

Assistant producers provide clerical support and background research; assist with the preparation of musical, written, and visual materials; and time the production to make sure it does not run over schedule. They also may operate cameras and other audio and video equipment.

Video editors select and assemble pretaped video to create a finished program, applying sound and special effects as necessary. Conventional editing requires assembling pieces of videotape to create a finished product in a linear fashion. The editor first assembles the beginning of the program, and then works sequentially towards the end. Newer computerized editing allows an editor to electronically cut and paste video segments. This technique is known as nonlinear editing because the editor is no longer restricted to working sequentially; a segment may be moved at any time to any location in the program.

Producers plan and develop live or taped productions, determining how the show will look and sound. They select the script, talent, sets, props, lighting, and other production elements. They also coordinate the activities of on-air personalities, production staff, and other personnel. *Website or Internet producers*, a relatively new occupation in the broadcast industry, plan and develop Internet sites that provide news updates, program schedules, and information about popular shows. The producer decides what will appear on the site and is responsible for its overall design and maintenance.

Announcers read news items and provide other information, such as program schedules and station breaks for commercials or public service information. Many radio announcers are referred to as disc jockeys, playing recorded music on radio stations. They may take requests from listeners; interview guests; and comment on the music, weather, or traffic. Most stations now have placed all of their advertisements, sound bites, and music on a computer, which is used to select and play or edit the items. Technological advances have simplified the monitoring and adjusting of the transmitter, leaving disc jockeys responsible for all of the tasks associated with keeping a station on the air. Traditional tapes and CD-ROMs are used only as backups in case of a computer failure. Announcers and disc jockeys need a good speaking voice; the latter also need a significant knowledge of music.

Program directors are in charge of on-air programming in radio stations. Program directors decide what type of music will be played, supervise on-air personnel, and often select the specific songs and the order in which they will be played. Considerable experience, usually as a disc jockey, is required, as well as a thorough knowledge of music.

News-related occupations. News, weather, and sports reports are important to many television stations because they attract a large audience and account for a large proportion of revenue. Many radio stations depend on up-to-the-minute news for a major share of their programming. Program production occupations, such as producers and announcers, also work on the production of news programs.

Reporters gather information from various sources, analyze and prepare news stories, and report on-the-air. *Correspondents* report on news occurring in the large U.S. and foreign cities where they are stationed. *Newswriters* write and edit the news

stories from information collected by reporters. Newswriters may advance to positions as reporters or correspondents.

Broadcast news analysts, also known as news anchors, analyze, interpret, and broadcast news received from various sources. News anchors present news stories and introduce videotaped news or live transmissions from on-the-scene reporters. Newscasters at large stations may specialize in a particular field. Weathercasters, also called weather reporters, report current and forecasted weather conditions. They gather information from national satellite weather services, wire services, and local and regional weather bureaus. Some weathercasters are trained *atmospheric scientists* and can develop their own weather forecasts. Sportscasters are responsible for reporting sporting events. They usually select, write, and deliver the sports news for each newscast.

Assistant news directors supervise the newsroom; they coordinate wire service reports, tape or film inserts, and stories from individual newswriters and reporters. *Assignment editors* assign stories to news teams, sending them on location if necessary.

News directors have overall responsibility for the news team of reporters, writers, editors, and newscasters, as well as studio and mobile unit production crews. This senior administrative position entails responsibilities that include determining what events to be covered, and how and when they will be presented in a news broadcast.

Technical occupations. Employees in these occupations operate and maintain the electronic equipment that records and transmits radio or television programs. The titles of some of these occupations use the terms “engineer,” “technician,” and “operator” interchangeably.

Radio operators manage equipment that regulates the signal strength, clarity, and range of sounds and colors of broadcasts. They also monitor and log outgoing signals and operate transmitters. *Audio and video equipment technicians* operate equipment to regulate the volume, sound quality, brightness, contrast, and visual quality of a broadcast. *Broadcast technicians* set up and maintain electronic broadcasting equipment. Their work can extend outside the studio, as when they set up portable transmitting equipment or maintain stationary towers.

Television and video camera operators set up and operate studio cameras, which are used in the television studio; and electronic news gathering cameras, which are mobile and used outside the studio when a news team is pursuing a story at another location. Camera operators need training in video, as well as some experience in television production.

Master control engineers ensure that all of the radio or television station’s scheduled program elements, such as on-location feeds, prerecorded segments, and commercials, are smoothly transmitted. They also are responsible for ensuring that transmissions meet Federal Communications Commission (FCC) requirements.

Technical directors direct the studio and control room technical staff during the production of a program. They need a thorough understanding of both the production and technical aspects of broadcasting, acquired as a lighting director or camera operator, or as another type of broadcast worker.

Assistant chief engineers oversee the day-to-day technical operations of the station. *Chief engineers* or *directors of engineering* are responsible for all of the station’s technical facilities and services. These workers need a bachelors’ degree in electrical engineering, technical training in broadcast engineering, and years of broadcast engineering experience acquired in less responsible positions.

Table 1. Employment of wage and salary workers in radio and television broadcasting by occupation, 2000 and projected change, 2000-10

(Employment in thousands)

Occupation	Employment, 2000		Percent change, 2000-2010
	Number	Percent	
All occupations	255	100.0	9.7
Management, business, and financial occupations	28	11.0	14.8
Advertising and promotions managers ..	3	1.3	26.7
Sales managers	3	1.3	26.7
Engineering managers	2	0.7	-5.9
General and operations managers	8	3.0	8.8
Business and financial operations occupations	3	1.1	16.6
Professional and related occupations ...	156	61.2	7.3
Computer specialists	3	1.1	43.2
Engineers	2	0.7	2.3
Multi-media artists and animators	2	0.9	9.7
Producers and directors	16	6.5	27.2
Announcers	43	17.0	-7.9
News analysts, reporters and correspondents	21	8.4	8.7
Public relations specialists	2	0.8	26.7
Editors	4	1.6	12.8
Writers and authors	4	1.5	15.1
All other media and communication workers	2	0.9	15.1
Audio and video equipment technicians	4	1.7	7.8
Broadcast technicians	23	9.1	3.6
Photographers	6	2.5	15.1
Camera operators, television, video, and motion picture	10	3.8	15.1
Film and video editors	3	1.3	15.1
Sales and related occupations	36	14.1	23.8
Advertising sales agents	29	11.3	26.7
First-line supervisors/managers of retail sales workers	2	0.7	16.3
Office and administrative support occupations	31	12.0	0.5
First-line supervisors/managers of office and administrative support workers	2	0.7	15.1
Bookkeeping, accounting, and auditing clerks	3	1.3	-0.9
Receptionists and information clerks	3	1.2	15.1
Material recording, scheduling, dispatching, and distributing occupations	2	0.7	6.7
Office clerks, general	5	2.1	1.5
Executive secretaries and administrative assistants	3	1.3	3.6
Secretaries, except legal, medical, and executive	3	1.0	-7.9

NOTE: May not add to totals due to omission of occupations with small employment.

Sales, promotions, and marketing occupations. Most workers in this category are *advertising sales agents*, sometimes known as *account executives*. They sell advertising time to sponsors, advertising agencies, and other buyers. Sales representatives must have a thorough knowledge of the size and characteristics of their station’s audience, including income levels, gender, age, and consumption patterns. Sales work has expanded beyond the traditional role of simply selling advertising to a wide range of marketing efforts. Stations earn additional revenue through broadcasting from a business, such as a dance club. Businesses

also sponsor concerts or other promotions that are organized by a station. In return for sponsorship, the business may set up a booth or post large signs.

Continuity directors schedule and produce commercials. Continuity directors carefully schedule commercials, taking into account both the timeslot in which a commercial is to be played, as well as competing advertisements. For example, two car dealership advertisements should not be played during the same commercial break. Continuity directors also create and produce advertisements for clients who do not produce their own.

Large stations generally have several workers who spend all of their time handling sales. *Sales worker supervisors*, who may handle a few large accounts personally, supervise these workers. In small stations, part-time sales personnel or announcers often handle sales responsibilities during hours they are not on-the-air.

General administration. *General managers* or *station managers* coordinate all radio and television station activities. In very small stations, the manager and a bookkeeper may handle all the accounting, purchasing, hiring, and other routine office work. In larger stations, the general administrative staff includes business managers, accountants, lawyers, personnel workers, public relations workers, and others. They are assisted by office and administrative support workers such as secretaries, word processors, typists, and financial clerks.

Training and Advancement

Professional, management, and sales occupations generally require a college degree; technical occupations often do not. It is easier to obtain employment and gain promotions with a degree, especially in larger, more competitive markets. Advanced schooling is generally required for supervisory positions—including technical occupations—having greater responsibility and higher salaries.

Entry-level jobs in news or program production increasingly require a college degree and some broadcast experience. Approximately 450 colleges offer formal programs in journalism and mass communications, including radio and television broadcasting. Some community colleges offer 2-year programs in broadcasting. Broadcast trade schools offer courses that last 6 months to a year and teach radio and television announcing, writing, and production.

Individuals pursuing a career in broadcasting often gain initial experience through work at college radio and television stations or through internships at professional stations. Although these positions are usually unpaid, they sometimes provide college credit or tuition. More importantly, they provide hands-on experience and a competitive edge when applying for jobs. In this highly competitive industry, broadcasters are less willing to provide on-the-job training, and instead seek candidates who can perform the job immediately.

Some technical positions require only a high school diploma. However, many broadcast stations seek individuals with training in broadcast technology, electronics, or engineering from a technical school, community college, or 4-year college. An understanding of computer networks and software will become more important as the industry introduces more digital technology. Supervisory technical positions and jobs in large stations generally require a college degree.

The Society of Broadcast Engineers (SBE) issues certification to technicians who pass a written examination. Several classes of certification are available, requiring increasing levels

of experience and knowledge for eligibility. The Telecommunications Act of 1996 mandated that the FCC drop its licensing requirements for transmitter maintenance; SBE certification has filled the void left by the elimination of this license.

Employees in the radio and television broadcasting industry often find their first job in broadcast stations serving smaller markets. Competition for positions in large metropolitan areas is stronger, and these stations usually seek highly experienced personnel. Because many radio and television stations are small, workers in this industry often must change employers to advance. Relocation to other parts of the country frequently is necessary.

Earnings

Weekly earnings of nonsupervisory workers in radio and television broadcasting averaged \$670 in 2000, higher than the average of \$474 for all private industry. As a common rule, earnings of broadcast personnel are highest in large metropolitan areas. Earnings in selected occupations in radio and television broadcasting for 2000 appear in table 2.

Table 2. Median hourly earnings of the largest occupations in radio and television broadcasting, 2000

Occupation	Radio and television broadcasting	All industries
General and operations managers	\$ 31.81	\$ 29.41
Advertising sales agents	17.53	17.24
News analysts, reporters and correspondents	16.13	14.00
Editors	14.81	18.93
Film and video editors	14.46	16.42
Photographers	14.37	10.72
Audio and video equipment technicians	11.70	14.57
Broadcast technicians	11.41	12.96
Camera operators, television, video, and motion picture	11.28	13.40
Announcers	9.54	9.52

The principal unions representing employees in radio and TV broadcasting are the National Association of Broadcast Employees and Technicians (NABET), the International Brotherhood of Electrical Workers (IBEW), the International Alliance of Theatrical Stage Employees (IATSE), and the American Federation of Television and Radio Artists (AFTRA).

Outlook

Employment in radio and television broadcasting is expected to increase only 10 percent over the 2000-10 period, slower than the 15 percent projected for all industries combined. Factors contributing to the relatively slow rate of growth include industry consolidation, introduction of new technologies, greater use of prepared programming, and competition from other media. Keen

