

Market Review: Nontheatrical Film and Audio-Visual — 1966

By THOMAS W. HOPE

This is the ninth in a series reporting on selected financial and statistical developments of the nontheatrical motion-picture and audio-visual fields in the United States. It brings up to date (as of January 1, 1967) this information, and accordingly supersedes "Market Review: Nontheatrical Film and Audio-Visual — 1965," published in the December 1966 Journal (pp. 1204-1210).

IT WILL NOT COME as a surprise to those working in the nontheatrical motion-picture and audio-visual (A-V) fields that the money expended in 1966 was the largest amount expended in the history of this segment of the industry. This had been foreseen by many. What is startling, however, is that the gain of \$212 million was 29% over the total expended in 1965 (Fig. 1).

While all portions of this market enjoyed respectable increases, the school market experienced a fantastic increase of 57%. Experts point to Federal aid to education as the chief reason (Fig. 2).

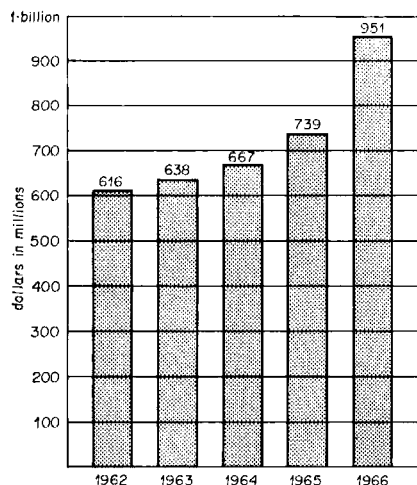


Fig. 1. Growth of A-V field.

It is estimated conservatively that the total spent by schools, business and industry, local, state and Federal governments, churches, community, social service and recreation agencies, plus the smaller medical and dental field was \$951,000,000 (Table I).

In 1966, spending by public and private schools plus colleges surpassed that of the traditional leader, business and industry, by a sizable amount. Education spent an estimated \$442 million, while industry put out about \$355 million, an increase over 1965 of 11%. Unparalleled business prosperity was one major factor contributing to the excellent year. To this was added the impact of massive Federal aid to schools.

While the dollar volume for the entire field represented a 29% increase, non-

This report was submitted on October 31, 1967. It was prepared for SMPTE by Thomas W. Hope, Motion Picture and Education Markets Div., Eastman Kodak Co., 343 State St., Rochester, N.Y. 14650.

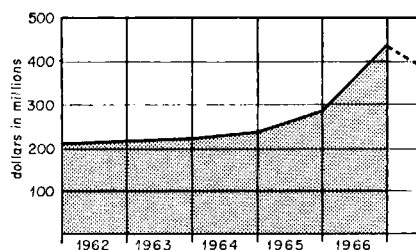


Fig. 2. School A-V expenditures.

theatrical film production was up a more modest 12%. Yet, that was more than double the gain of the previous year (Table II). It is estimated that 12,000 nontheatrical motion pictures were produced. This total does not include films made or edited only for super 8 and 8mm release.

Eight-millimeter releases had a healthy gain in 1966. The number of silent, short-film¹ subjects is estimated at 3,000 which is almost double the output of all previous years put together (Table III). The number of sound films, from which some super 8 and 8mm prints were made, also doubled its total of all previous years, 3,600 (Table IV).

Table I. Audio-Visual Expenditures by Markets (in millions).

	1965	1966	Change
Education (Schools & Universities)	\$282	\$442	+57%
Business and Industry	319	355	+11%
Government (Local, State and Federal)	90	100	+11%
Community, Social Service, Recreation	19	23	+11%*
Religion	20	21	+5%
Medicine and Health	9	10	+11%
Total	\$739	\$951	+29%

* The percent increase was computed using \$21 million, the estimated actual total expenditure by community and related agencies. For purposes of this summary table, \$2 million estimated for avant garde and experimental film production was included.

Table II. Estimated Number of U.S. Nontheatrical Motion-Picture Productions.

	1965	1966	Change
Business and Industry	6,400	7,400	+16%
Government (Local, State and Federal)	1,900	2,000	+5%
Education (Schools and Universities)	1,370	1,500	+9%
Medicine and Health	390	400	+3%
Community Agencies	210	230	+10%
Religion	210	220	+5%
Avant Garde	190	250	+32%
Total	10,670	12,000	+13%

Of the six categories of expenditures measured in this report, that of *Other Audio-Visual* had a spectacular increase of an estimated 104% over the 1965 spending (Table V). The outlay jumped from

¹ Shortfilm — like a filmstrip — has no maximum length but does have a specific communication objective. This definition includes the "single-concept" film and "film loop."

\$96 million in 1965 to \$196 million for 1966. For details of this category and of the others, see sections following this introduction. A listing of the items comprising each category can be found in the Appendix at the end of this report.

Another category that achieved an all-time high was *Motion Picture Equipment*. Expenditures reached an estimated \$58 million, up 38% over the 1965 spending. The major items in this category were 16mm sound projectors which had a big year with sales amounting to 74,500 machines.

The *Administration* category showed a dollar gain of \$35 million, reaching an estimated \$261 million total. This rise of 16% resulted not only from increased costs of doing business (i.e., wage and salary increases plus higher travel and other administrative expenses) but also from added employees.

Expenditures for film production jumped 20%, reaching an estimated \$183 million, which was \$30 million more than spent in 1965. Release print outlay was up 17% to \$112 million. Actually, film distribution had the smallest increase; yet even that was a respectable 12%, for an estimated \$141 million.

Nontheatrical Film Production

While the "hardware" portion of the field enjoyed unprecedented gains, similarly motion-picture production had the greatest gain since this series of annual reports was begun 11 years ago. (The 1,360-title increase reported for 1959 over 1958 was not actually a true gain because in 1959 university film production, amounting to approximately 600 titles, was incorporated into the

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data, but no figure was inserted for 1958.) The 1,330 new titles, plus the 3,020 short-film loops in super 8 and 8mm made 1966 the high point in nontheatrical production.

The 12% rise in regular productions, intended for 16mm prints, brought the year's total to an estimated 12,000 titles.

Shortfilm¹ production was up a sizable 73%, reaching a total of 4,768 domestic titles. In addition, 426 made outside of the country became available in the U.S.A. for school use. Including both domestic and foreign production, 5,989 titles were released in this country by the beginning of 1967.

While some of the 8mm shortfilms turned out in 1966 were re-edited from standard 16mm classroom subjects, the volume of new productions designed specifically to be released in 8mm and/or super 8 went up significantly. The investment of this short-film production reached an estimated \$6 million, which has been incorporated in the overall production figure.

The \$26 million estimated for educational production can be broken down into two figures: \$20 million for the 1,500 subjects plus \$6 million for the 3,020 shortfilm titles.

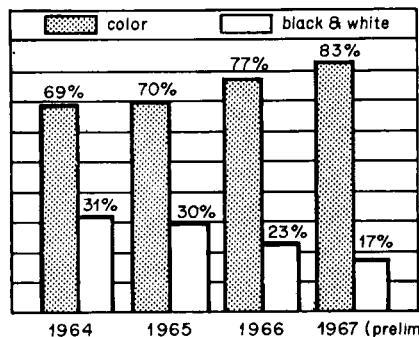


Fig. 3. Trend to color.

The \$26 million for educational production includes the work of over 80 college and university film production units, the output of several large school systems and special units plus the film work of several dozen commercial classroom film producers.

The estimated \$183 million spent for film production in 1966 not only covers the making of 12,000 regular motion pictures and 3,020 shortfilms but also includes thousands of feet of film used in training and other applications which are never completely edited with sound added. This is especially true of the military and medical film work.

According to Table II, the production area with the greatest increase was that of the avant garde and experimental film which probably went up about 32%. This production volume is difficult to measure with any accuracy. The average production cost is exceedingly low in comparison to other kinds of production. The two-plus million dollars estimated for avant garde films has been included in the *Community* market total since most of the prints are distributed through various libraries and nontheatrical film distributors.

The swing to color shot up, verifying the forecast made in the 1965 market report. As seen in Fig. 3, 77% of the nontheatrical productions made in 1966 were shot in

Table III. Silent Shortfilms Released in 8mm.

	Previous Cumulative Total	1966	As Of January 1, 1967
U. S. Productions			
8mm	1,409	1,942	3,351
Super 8	286	231	517
Super 8 & 8mm	53	847	900
Total	1,748	3,020	4,768
Foreign Imports			
8mm	745	423	1,168
Super 8	50	—	50
Super 8 & 8mm	—	3	3
Total	795	426	1,221
Total Silent	2,543	3,446	5,989

Note: Some of the 1966 films were primarily re-edited from longer educational subjects. An increasing number of productions, however, were made only for 8mm single-concept release.

Table IV. Estimated Films Printed in 8mm Sound.

	Previous Cumulative Total	1966	Total As Of January 1, 1967	Avg. No. Of Prints
Business	810	2,005	2,815	14
Education	500	619	1,119	5
Government	50	122	172	10
Medicine	100	435	535	7
Television	—	262	262	12
Religious	30	14	44	1
Entertainment	285	98	383	354
Community	20	30	50	5
Total	1,795	3,585	5,380	18 (12)*

Note: Practically all of these motion pictures were originally produced in 16mm or 35mm. In most cases the 8mm prints were done as an experiment, with only a few such prints being made.

* Average number of prints without the entertainment print quantity (354 avg.) included. Sixty juke-box films for which 400 prints were made of each subject, were not included in calculating the 12-print-per-subject average.

Table V. Audio-Visual Expenditure by Category (in millions).

	1965	1966	Change
Film Production	\$153	\$183	+20%
Release Prints	96	112	+17%
Film Distribution	126	141	+12%
Motion-Picture Equipment	42	58	+38%
Other Audio-Visual	96	196	+104%
Administration	226	261	+16%
Total	\$739	\$951	+29%

color, compared to 70% the previous year. The rate according to preliminary 1967 reports shows the trend continuing upward to 83%.

A large amount of business and government filming continues to be shot on 35mm gage film. Strangely enough, in the producer panel (33 film producers scattered geographically across the country) while 91% of 832 productions were shot in 16mm during 1965, only 88% of 944 films were made on 16mm in 1966 (Table VI).

Release Printing

The money spent for release prints had a healthy increase of 17% in 1966, reaching an estimated \$112 million. The effect of the

growing use of color film in all phases of the motion-picture industry, including theatrical and television segments influenced the dollar volume of release printing even more than the footage gains.

The estimated volume of classroom film prints went up significantly due to the increased sales of prints by traditional educational producers, by the entry of new film producers in this market, and by a flood of new 8mm and super 8 film subjects. Because of a decline in black-and-white print sales and a large increase in color print sales, the dollar amount was up a huge 50%.

The second annual survey conducted by the Association of Cinema Laboratories showed that in 1966, 62 labs had an overall

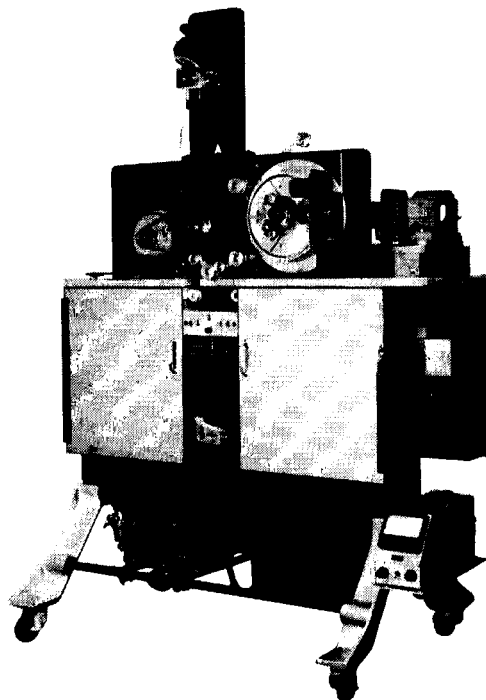
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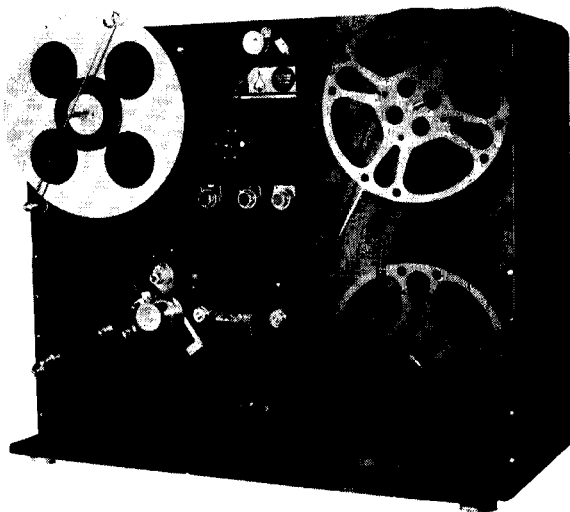
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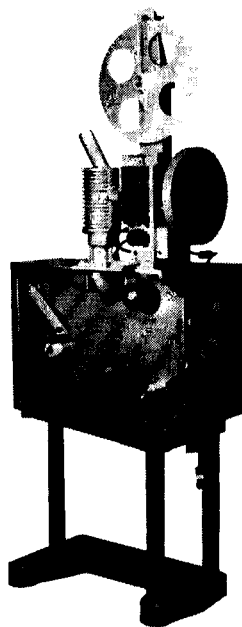


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increase in footage processed of 13%.² The color processing was up 43%, while the black-and-white work was down 16% (Table VII).

Of course, the bulk of the 35mm work went for theatrical feature and short-subject release printing. The B&W 35mm footage processed in 1966 was off 33% while color was up 34%. The total 35mm processing was up 8% from 1965 as reported by 28 laboratories.

The 16mm processing had an overall rise of 20%, with color up 46% and B&W down 4%. The processing of 8mm and super 8 color and B&W was off 6%. Although the number of 8mm titles announced went up significantly (an estimated 86%) the amount of print orders went down.

It should be pointed out that for all practical purposes almost all super 8 and 8mm prints are made from either 35mm or 16mm originals. The printing can be accomplished either by making an inter-negative from which contact prints are struck off, or by continuous reduction printing.

Some laboratories print two super 8 or 8mm prints side by side on 16mm film perforated for the appropriate kind of 8mm. Others plan to print three or four 8mm or super 8 prints on 35mm, trimming off three or eleven millimeters of film at the end while slitting into the 8mm widths. All 8mm or super 8 internegatives intended for contact printing have a reduction step from the original at some point in the operation.

As yet, only in rare instances do laboratories attempt to make 8mm or super 8 prints from an 8mm or super 8 original (color reversal or B&W film).

Laboratories reported that in 1967 super 8 printing was increasing at roughly twice the rate of regular 8mm printing.

In 1965, 72% of the 35mm productions were in color, 28% in B&W. In 1966 both the number and percentage in B&W went up; 67% of the 35mm motion pictures were in color and 33% in B&W.

For 16mm, color increased by almost the same percentage that B&W did in 35mm. 1965 16mm productions had 87% in color compared to 93% in 1966. Black-and-white shooting went from 13% in 1965 down to 7% in 1966.

In 1966, a known 3,585 sound films had 8mm or super 8 prints made, averaging 12 prints per title. This average does not include 8mm prints made for entertainment purposes (for home purchases and film-juke boxes) which averaged 354 prints per title (Table IV).

More than half of the 8mm sound films have been made for business firms, which averaged 14 prints per title in 1966.

As of January 1, 1967, there had been sound 8mm and super 8 prints made from 5,380 titles. With the exception of the entertainment films and several business film series, most of the prints were made for organizations which were experimenting with the new medium.

The television 8mm films were a new use of the medium. Advertising agencies printed up a few TV commercials which they spliced into an entertainment film.

² 1966 Annual Production Survey, The Association of Cinema Laboratories, Inc., 1925 K Street, N.W., Washington, D.C., October, 1967.

Table VI. Film Width — Business Productions.*

Size Camera Film	1965		1966	
	No. of Productions	Percentage	No. of Productions	Percentage
35mm	71	9%	110	12%
16mm	761	91%	834	88%
Total	832		944	

* Not to be confused with types of release prints.

Table VII. Film Processed in 1966 (in millions of feet).*

Type of Film	Labs Re- port- ing	1965			1966			Change
		No.	Percentage	Value	No.	Percentage	Value	
<i>Black-and-White</i>								
35mm	28	439	293	-33%				
16mm	57	620	593	-04%				
8mm	19	86	74	-14%				
Total	59	1,145	960	-16%				
<i>Color</i>								
35mm	17	700	940	+34%				
16mm	46	362	587	+62%				
8mm	12	26	31	+19%				
Total	47	1,088	1,558	+43%				
Grand Total	62	2,233	2,518	+13%				

* All footages are given in single-strand linear feet. Included in processed footage is all print film printed and developed plus color internegative and interpositive material, black-and-white dupe negative and master positive material, reversal masters, and camera original film received for developing only.

Then 8mm reduction prints were made and the films shown in rear-screen 8mm sound projectors before audiences to test the effectiveness of different commercials.

Film Distribution

The circulating and selling of film prints generally follows the film production and release printing activity. For the past four years the percentage gain has risen each year over the previous year; 1963: 3.8%; 1964: 6%; 1965: 10%; and 1966: 12%. Last year's gain equalled the best previous year when a 12% rise was recorded in 1959.

Several aspects of film circulation noted in the market report for 1965 followed the same pattern in 1966. Theatrical bookings for business-sponsored films continued to grow at a rapid rate. The shortage of enough short-subject products for the theater screens of America plus more aggressive merchandising by the film distributors were given as the principal reasons.

Commercial 16mm distributors continued the revival of summer resort showing operations in certain regions across the country. This practice extends film bookings into a period when a summer lull normally occurs.

Television use of sponsored films on public service time did not increase in 1966, holding about even with 1965. There was no increase in airport theater installations.

Motion Picture Equipment

Sixteen millimeter sound motion-picture projector sales hit an all-time high of 74,500

(Table VIII). Of these domestic sales, 74,000 were manufactured in the United States. Exports of U.S.-made machines were 9,378 units.

The domestic sales represented a 67% increase over the 44,600 sold in 1965, the previous high year since 1948.

Purchase of 16mm sound projectors by schools jumped from an estimated 25,500 in 1965 to probably 52,700 last year, about a 107% gain. Sales to schools represented 71% of all projectors sold, compared to 57% of 1965's total sales.

The total number of 16mm projectors in use now probably exceeds 934,000, with close to a third of them in America's schools.

There was one noticeable change in the buying pattern for 1966. The trade-in of old projectors dropped off sharply. Dealers reported that there were trade-ins in one or two per cent of new sales. Only one dealer reported trade-ins as high as 6%. For example, some dealers indicated that they took in only two or three projectors all year.

The major factor, again, was Federal aid to education which prohibits any trading in of used equipment. The purpose behind this stipulation is the need to increase the projector population in schools, not just upgrade presently owned machines.

It appears that possibly about 3,500 projectors may have been traded in. Sales of secondhand machines could be estimated at 1,000 units, making a net gain for the year of 72,000 projectors. An estimated 2,500 projectors could be considered obsolete or were cannibalized by wholesale secondhand dealers for subsequent exporting.

Other major items in this category which increased were lighting equipment, up almost 14%, 8mm sound and silent projectors, sound recording equipment and film inspection units. It appeared that 16mm camera sales were down as were those of secondhand 16mm sound projectors.

Because of the fact that there is only one manufacturer who had significant sales of 8mm silent cartridge projectors and only one of 8mm sound projectors, it has not been possible or ethical to begin a tally of actual annual sales. The combined total of 8mm projectors, sound and silent, in use in the audio-visual field probably is in the range of 140,000 to 150,000 units.

It is safe to say that possibly 70% of the silent cartridge projectors are in schools. On the other hand the 8mm sound projectors are predominately in two markets, that of business and medicine.

Other A-V Equipment and Materials

The "glamour boy" of all categories in the A-V market in 1966 was a conglomeration of more than several hundred different items of equipment and materials in 35

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main groups. The sales of products in this category totaled \$196 million, which was up 104% over the previous year's estimated total of \$96 million.

The 35 groups are listed in the Appendix. The items in this category are not spelled out individually for several reasons. In a few cases manufacturers (although there may be enough so as not to disclose sales of any one company) are unwilling to divulge their sales, even to a public accounting firm. For some products there is only one major supplier and making public the entire sales for that specific product would indirectly reveal one company's sales figure.

Projection equipment probably amounted to about \$72 million in sales in 1966, which was up 64% over the estimate for 1965. The items comprising this section are filmstrip, 2 X 2 in. slide, 3 1/4 X 4 in. slide, overhead, opaque, sound filmstrip, micro and special projection systems.

In 1965 the miscellaneous projection equipment listed above accounted for 45% of this category, whereas in 1966 the projection equipment sales amounted to only 37%.

Probably half of the sales dollars went for overhead projectors. Several knowledgeable persons in the A-V market estimate that overhead projector sales were probably under 200,000 units, possibly around 190,000. Sales were just about double those in 1965. Opaque projector dollars were about one-seventh of overhead dollars, but the unit sales were much lower, probably less than a tenth of the overhead units.

Filmstrip projector sales were estimated to be around 160,000 units for a dollar total of about \$12 million. Sound filmstrip projector sales remained even with those of 1965, about 27,000 units.

Materials used for making slides, overhead transparencies and other projection materials totaled possibly \$21 million, or 11% of the whole category, compared to 12% of the category in 1965. Included are 35mm film, acetate sheets for transparencies, art materials, etc.

No accurate studies to our knowledge were made of the sale of electronic and audio equipment and supplies to the A-V field. A "guesstimate" of 1966 dollar sales might be \$42 million, which is 89% more than 1965's "guesstimate." This section would be 22% of the entire category, off from 23%.

All of the other miscellaneous items of equipment related to the A-V field totaled an estimated \$62 million, or 31% of the category. This figure is up 138% over the corresponding estimate for 1965.

The most spectacular gain was in reading or tachistoscopic devices which probably leaped up 340% to over \$22 million. Other major items in this category are projection screens, projection tables and projection lamps.

Administration

At the rate that film producers, business sponsors, schools and other A-V units added new employees, it is estimated that the entire field increased by at least 8,000 to 10,000 persons reaching the 69,000 to 70,000 mark. One-third of these individuals could be classified as administrative. The others would be included within the categories of film production, laboratory, dis-

Table VIII. Analysis of 16mm Sound Motion-Picture Projector Sales for 1966 (as of January 1, 1967).

	% of 1965 New Sales	1965 Sales	1966 New Sales	% of 1966 New Sales	1966 Net Gain*	Total in Use Jan. 1, 1967
Education (Schools and Universi- ties)	57%	25,500	52,700	71%	51,500	299,000
Business and Industry	21%	9,100	9,000	12%	7,700	216,100
Government (Local, State and Federal)	9%	4,200	6,300	9%	6,200	98,300
Religion	6%	2,800	2,500	3%	2,800	153,000
Community	5%	1,900	2,400	3%	2,200	66,200
Medicine and Health	2%	1,000	1,500	2%	1,400	20,500
Home—Amateur	0	100	100	0	200	80,900
Total	100%	44,600	74,500	100%	72,000	934,000

* Net gain equals 1966 sales of new projectors less the trade in of old equipment plus the sales of used projectors. The trading-in of used projectors dropped nationally to 5% from an average of 24% in 1965. This means that one old projector was traded in for every 20 new ones purchased. (See section on Motion Picture Equipment for more explanation).

tribution, and the manufacturing and selling of A-V products.

It has been estimated that the total administrative costs went up 16%, reaching \$261 million. This increase would reflect the generally higher overhead, travel, and operating expenditures which spread throughout the economy. It would also allow for a 5% wage and benefit increase across the board for administration.

The wages and direct costs of production and other technical workers are included in the proper respective categories such as production, release printing, distribution and manufacturing.

The personnel shortage continued in production, laboratory and other fields. Engineering personnel were in great demand. University A-V schools reported that they could have placed in positions twice as many graduates as they had in June, 1966.

The number of graduate students was up markedly. Both master and doctorate programs were active.

Not only was the nontheatrical film and audiovisual field showing the vigor associated with the strongest of growth industries, but secondary activities were important. The whole subject of teaching film-appreciation in schools caught on. Film was truly becoming an educationally acceptable medium of communication and creative expression.

Capital spending is difficult to assess. Thirty-two producers cut back 30% from 1965 capital outlays. On the other hand, several dozen business sponsors increased spending 400% more in 1966 than in 1965.

Education

Of the A-V industry's total 1966 gain of \$212 million, 75% was accounted for by school audiovisual buying and activities. The \$442 million spent by America's schools for A-V purchases and programs in 1966 was a \$160 million increase over the previous year, for a remarkable 57% gain (Table IX).

The number of regular classroom motion pictures was up a modest 10%, reaching an estimated 1,500 titles. On the other hand, 8mm silent shortfilms were up 73%, with 3,020 new titles available to schools. The total 8mm and super 8 titles at the beginning of 1967 reached 4,768.

An analysis of the subject matter available in several thousand silent 8mm shortfilms showed that 28% were on life sciences, 19% for training and technology, 18% for sports, 15% for physical sciences, 12% on the arts and 8% for travel and history, religion and ethics, and languages (Table X).

The increase in regular 16mm film production coupled with the growth of 8mm silent shortfilm production jumped expenditures for educational productions from \$18 million estimated for 1965 to a probable \$26 million in 1966.

A look at the color trend in educational productions, showed no change in 1966 from the 84% color versus 16% B&W of 1965. Preliminary figures for 1967, however, indicate that color is up three points to 87 of all educational productions (Table XI).

Release printing had a sizable gain in 1966, going up 50% from an estimated \$20 million in 1965 to \$30 million last year. This resulted again from the purchasing of more color prints and also from a growing market in 8mm silent shortfilms. Altogether some 49 producer/distributors offered 8mm shortfilms, either in film loops or on reels as of July, 1967.

Film distribution in the educational market is considerably different from that in the business and industrial market. In education the term distribution applies in two distinct ways. For school systems and universities, the term refers to the money spent in circulating films (including rentals). For the commercial educational producers, it refers to the merchandising portion and profit made in selling prints.

To estimate the size of the classroom film business in this country, one must add up the figures of three categories (film production, release prints and distribution) and then deduct expenditures for internal film distribution and the activity of university film production units. Allowing approximately \$24 million for the internal expenses, the educational film market should be around the \$75 million figure.

The high level of 16mm sound projector purchases (estimated 52,700) jumped the total spent in this category from \$20 million to an estimated \$33 million in 1966. A small portion of the figure relates to 8mm silent and sound projector sales.

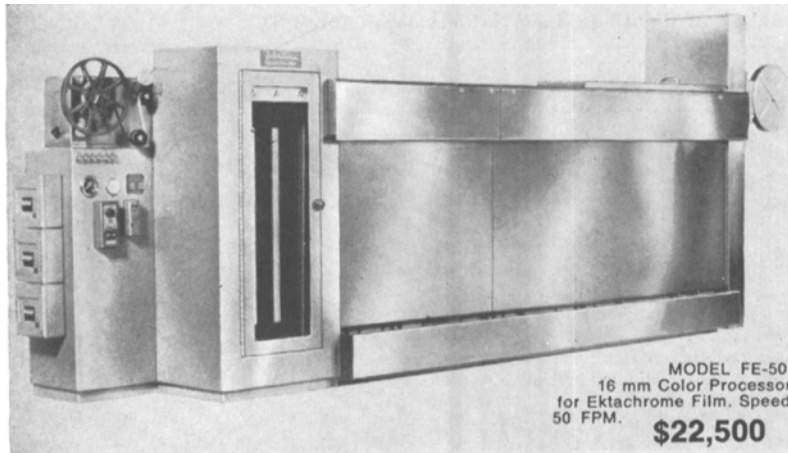
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The amount of money spent for *Other Audio-Visual* items had a spectacular 200% increase to an estimated \$146 million from an estimated \$46 million in 1965. As mentioned previously, such items as reading (tachistoscopic) devices, overhead projectors, filmstrip projectors, projection screens, slide and transparency materials, and a number of electronic items are the larger dollar volume products in this category.

Administrative outlay was up as an estimated several thousand persons were employed by schools and universities. In addition, classroom film producers expanded to meet the demand for products. Wage, benefit and operating expenditure increases also contributed to the total money spent by schools and universities.

Business and Industry

The estimated \$355 million spent by business and industrial firms in 1966 represents an 11% gain (\$36 million) over the estimated spending for the previous year. All through the years, the business community has been the backbone of the entire A-V field. Last year, however, the lead was given up to the educational market which was heavily supported by Federal-aid-to-education funds.

Film productions for and by industry were up 14% to an estimated 7,400 titles. Not included in this figure are many thousands of feet of film shot but never edited into complete sound motion pictures. In spite of this, the 7,400 estimate is considered a conservative figure.

A sampling of 22 large corporations (manufacturing, transportation, retail, and utility firms included) produced an average of seven films each in 1966 of which 1.6 per company were produced for them by outside industrial commercial producers. Obviously, if that rate of seven motion pictures per sponsor were to be applied to the 3,000 or more business firms which regularly produce or have films produced, the annual rate for 1966 would be in the 21,000 range. Eventually it is hoped that a system can be developed whereby a relatively accurate count can be made of business film production activity.

In an analysis of films made in 1965 and 1966 by a cross-section of industrial producers, there was a decided shift in the type of films made (Table XII). The increasingly competitive situation in the world marketplace was reflected by the fact that 63% of the films commercially produced for business and industry were for sales purposes in 1966, whereas only 55% were selling films in 1965. Training films went from 12% up to 14% of those produced commercially, again an indication of the growing importance being placed on the need for better training of employees.

The trend to greater use of color in business film production reached the 92% mark in 1966. This reversed a slight dip experienced in 1965 (Table XIII).

Employment in 31 industrial film production companies increased 15% in 1966, going from 1,256 in 1965 to 1,450 last year. Most of the added people were in the production and technical side of the business, with a lesser increase for administrative (office) personnel (Table XIV). In 1965 these 31 companies had an average of 41 employees while in 1966 the average had risen to 47.

Table IX. Estimated 1966 Detailed Expenditure by Market and Category (in millions).

	Pro- duction	Release Prints	Distri- bution	Mot.- Pic. Equip- ment	Other A-V	Adminis- tration	Total
Education (Schools and Universities)	\$ 26	\$ 30	\$ 43	\$33	\$140	\$170	\$442
Business and Industry	112	61	63	14	33	72	355
Government (Local, State and Federal	32	14	17	6	17	14	100
Community	5	2	11	2	2	1	23
Religion	4	3	6	2	3	3	21
Medical and Health	4	2	1	1	1	1	10
Total	\$183	\$112	\$141	\$58	\$196	\$261	\$951

Table X. Analysis of Silent Film-Loop Subjects (as of July 1967).

	Number of Films	%	Releasing Companies*
Life Sciences	1,126	28%	26
Training and Technology	763	19%	28
Sports	741	18%	15
Physical Sciences	615	15%	26
The Arts	471	12%	12
Travel and History	150	8%	3
Religion and Ethics	114		3
Languages	88		6
Total	4,068		

* Forty-nine different production and releasing companies selling mostly 8mm film loops in Technicolor cartridges.

Employment in a sample of business sponsors went up 16%. Caution is necessary in projecting the percentage across the board to all 3,000 business firms having film programs, because the sample included some large corporations. The reports did not include all A-V and film employees in the 22 firms. The average of the sample, however, went from 5.5 employees in 1965 to 6.4 in 1966.

An analysis of the kinds of income for 25 large industrial film producers revealed that the average gross of these companies was slightly over a million dollars. Almost \$400,000 of these gross billings came from regular film production, almost \$300,000 from TV commercials, and about \$125,000 from the sale of prints (Table XV).

Thirteen of 27 companies made TV commercials and 6 produced live shows while 11 had other forms of income. Fifteen produced filmstrips with four grossing more than 20% of their total income from filmstrips. Fourteen earned 75% or more of their total income from motion-picture production (Table XVI).

Release printing for business films was up an estimated 10% to \$61 million. Film distribution was likewise up, from \$57 million to an estimated \$63 million in 1966. The sample of 22 industrial firms spent 12% of its film program money for distribution, 20% for release prints and 68% for production.

While business firms purchased less 16mm sound projectors in 1966, there was a small increase in spending for motion-picture equipment. Projector sales dipped from 9,100 to an estimated 9,000. Most of the dollar gain was accounted for by the

Table XI. Educational Film Trend to Color.

Year	Black- and-White	Color
1962.	35%	65%
1963.	27%	73%
1964.	16%	84%
1965.	16%	84%
1966.	16%	84%
1967 (preliminary)	13%	87%

Table XII. Analysis of Business Films Made by Industrial Producers.

	1965	1966
Sales	55%	63%
Advertising	14%	8%
Public Relations	13%	11%
Training	12%	14%
Other	6%	4%
Total	100%	100%

Table XIII. Business Film Trend to Color.

Year	Black-and-White	Color
1954.	22%	78%
1964.	10%	90%
1965.	12%	88%
1966.	8%	92%

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Table XIV. Employees of 30 Commercial Producers.

	1965	1966
Production and Technical	608	751
Sales	120	140
Administrative	417	449
Other	111	110
Total	1,256	1,450

purchase of sound recording, lighting and other production equipment plus greater sales of 8mm sound projectors.

Other A-V equipment and material expenditures went up from \$30 million to an estimated \$33 million for a 10% rise. The use of 2 x 2 in. slides was partially responsible for the increase along with such items as the overhead projector, tape recorders and miscellaneous equipment. Materials for use with this equipment also gained. Sound filmstrip projector sales were about level, up less than one percentage point.

Administrative outlay in this market went up almost 10%, going from \$66 million to an estimated \$72 million. This increase resulted from the employment of a large number of new employees plus higher budgets for general operations such as travel and wages.

Local, State and Federal Government

Government agencies followed the national trend by spending more for A-V in 1966, showing an 11% rise. For the year it is estimated that the total expended by all agencies hit the \$100 million mark. It is known that all of the military outlay is not included in this report, since the Federal portion of the \$100 million total reflects chiefly activities in or directly connected to Washington.

In 1966, for the first time, there appeared to be more film production than normal for the amount of release printing. This differential was probably caused by demands for more filming in Viet Nam.

The number of film titles estimated for all government agencies in 1966 was 2,000. This does not take into account what could be several thousand films produced in installations in various parts of this country and the world for local use.

The expenditure for film production was estimated at \$32 million for calendar year 1966. (Because the Federal government fiscal year is July through June, a certain amount of value judgment must be applied to Government data in converting to a calendar year.) The 1965 production figure was an estimated \$28 million.

Release printing was up only slightly but not enough to change the total from \$14 million. Film distribution did go up an estimated one-million dollars, reaching \$17 million.

Federal, state and local government agency purchases of 16mm sound projectors went up about 50%, going from 4,200 units bought in 1965 to 6,300 in 1966. This plus other motion-picture equipment buying brought a sizable jump in this category from \$4 million to an estimated \$6 million.

Spending for *Other Audio-Visual* devices and materials likewise had a healthy jump in 1966, going from \$15 million to \$17 million. This amounted to a 13% gain.

Table XV. Analysis of Industrial Producer Income.

	No. Of Companies	1965	1966	Gain Over 1965	Average Per Co.
Gross business	25*	\$20,399,832	\$27,432,683	+34%	\$1,097,307
Film production	22*	6,936,742	8,638,858	+25%	392,675
Release prints	19	1,858,746	2,365,320	+27%	124,490
TV commercials	11	2,535,598	3,218,293	+27%	292,572
Other services	12	6,981,671	9,751,697	+40%	812,641

* While 25 companies reported gross income for both 1965 and 1966, only 22 producers gave a breakout of the kinds of income.

The administrative outlay in 1966 had a modest increase of one million dollars, reaching \$14 million for about a 7% rise.

Government use of color film for production amounted to about 75% vs. 25% for B&W.

Community, Social Service and Recreation

While the number of motion pictures produced by and for community agencies, social service groups, recreation purposes (including professional sports film analysis), and foundations went up in titles an estimated 10% to 230, this year a "guesstimate" of \$2 million has been added for the avant garde and experimental film production, as mentioned in the earlier section on nontheatrical film production.

Release print purchases remained around the \$2 million mark. Film distribution, however, has been increasing, and the amount estimated for this operation now is \$11 million. Although no nationwide figures have been gathered in the past few years, individual libraries, public and commercial, report that film circulation is up.

The purchase of 16mm sound projectors by these agencies was up 500 units in 1966, for a total of 2,400. The purchase of other kinds of equipment and materials for audio-visual uses continued to increase and this year was almost \$2 million.

Religion

Religious film activity was up slightly, just enough to statistically move the production figure up to an estimated \$4 million. There was a small increase in titles turned out, some organizations releasing a few more films and several off slightly. The net was a plus 5% or up 10 titles to the estimated 220.

All other categories within the market remained fairly level with 1965: release prints at \$3 million; film distribution at \$6 million; motion-picture equipment at \$2 million (actually 16mm projector sales were off 300 units); other A-V at \$3 million and administrative expenditures at \$3 million.

Medicine and Public Health

The field of medicine, dentistry and public health enjoyed a good year from an A-V and film standpoint. The total expended went up a million dollars to an estimated \$10 million, for an increase of 11%. Actually the total for the field is more than \$10 million, but each of the category segments is not enough to register a full million any place except in the area of film production.

The amount of film shooting was decidedly up, even though the number of

Table XVI. Analysis of Industrial Producers' Activities and Revenues.

<i>Of 28 companies producing motion pictures</i>	
15 produce filmstrips, sound or silent	
13 produce TV commercials	
6 produce live shows	
12 derive income from other services	
<i>Of 28 producers</i>	
14 gross 75% or more from motion pictures	
3 gross 50% to 74% from motion pictures	
6 gross 25% to 49% from motion pictures	
5 gross less than 25% from motion pictures	
<i>Of 15 producers making filmstrips</i>	
4 gross more than 20% from filmstrips	
3 gross 10% to 19%	
8 gross less than 10%	

titles was probably up only 10 to 400 in all. The film production programs of some pharmaceutical houses continued to be held in abeyance because of Federal investigation of the industry. Because of the increased film programs by university and government medical units, the monetary outlay for filming went up to an estimated \$4 million.

One measurable increase occurred in the buying of 16mm sound projectors which increased from 1,000 units in 1965 to 1,500 units in 1966.

Film circulation by the American Medical Association was up 21% in 1966, partially accounted for by the addition of the film library of the Association of American Medical Colleges at the beginning of 1966. Film bookings that year were 14,064 compared to 11,635 in 1965.

Several new programs were emerging to help improve the ability to communicate new medical ideas and techniques. The new 8mm sound film system was employed for this use. In addition, Government medical operations such as those of the Veterans Administration and the Public Health Service were active. Several medical schools expanded their film operations.

Export Market

The full effect of the signing of the Beirut Agreement by President Johnson late in 1966 obviously was not felt during the year 1966.

Although it is felt from unofficial reports that the equipment and materials exported during 1966 went up, the export percentage of the total A-V market dipped slightly because of the tremendous domestic upswing.

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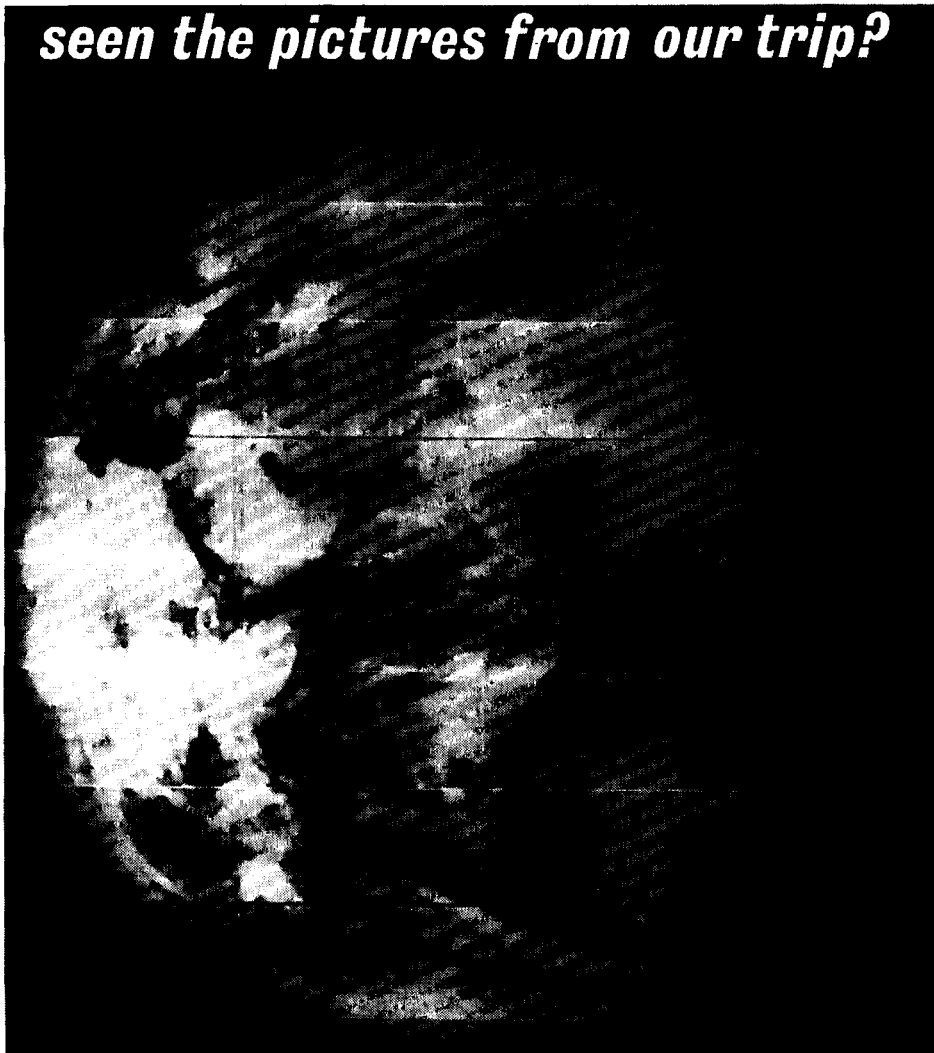


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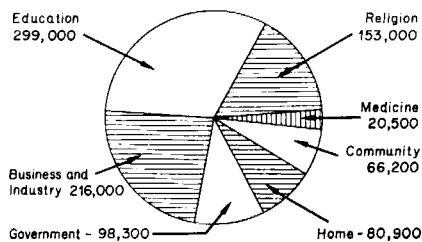


Fig. 4. Ownership of 934,000 16mm sound projectors in use in U.S.A. (estimated as of January 1, 1967).

It is possible that a total of \$12 million in U.S. film and A-V products were exported during 1966, which is a little under 2% of the total A-V business after an adjustment is made by removing the administrative figure of \$261.

An international meeting was held in Geneva, Switzerland, in late November, 1967, for the purpose of determining ways to implement the Beirut Agreement and speed up the free flow of educational, scientific and cultural A-V materials around the world.

In Washington, inquiries from producers and manufacturers of all kinds indicate that there is great interest on the part of U.S. businessmen to open up markets for their products abroad. Several educational film producers, for example, have set up offices in England and on the European continent.

The Year 1966

Two years ago at the close of the 1964 Market Report in this series, it was pointed out that the next several years would be ones of dynamic growth. Certainly such has proven to be the case.

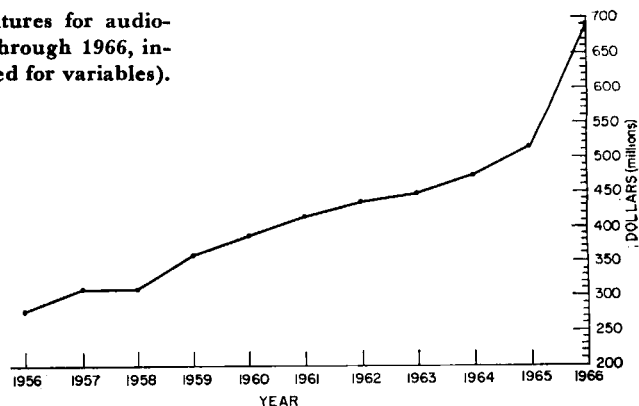
Continued growth at the same rate as 1966 (29%) cannot be anticipated for 1967 or even 1968. In the education market it is known that there has been a tightening up on the Federal aid. Unofficial reports indicate that the A-V buying by schools is off in 1967 (Fig. 2). To a certain extent, such action has a way of influencing other markets.

The focus of attention on education in this country and in particular the role of the film and A-V media along with the newer electronic tools have brought many new companies knocking at the door. Some have come into the A-V field with a flourish only to find that this is not a field in which a "quick buck" can easily be made.

Most buyers of equipment and films are knowledgeable. The A-V field might be said to be one of sophistication. Just in the area of education, the change which has occurred in the past 10 or 15 years would dumbfound the great educators of past generations. The old saw that it takes 50 years for a new idea to become accepted by education no longer can be used.

Man has progressed so far that motion pictures can actually be produced by the computer. On the other hand many young people are showing that they have the talents and creativity necessary to turn out some imaginative films. The motion picture is being introduced to help underprivileged children and those of so-called minority groups to learn how to express themselves via the visual medium.

Fig. 5. Annual expenditures for audio-visual in U.S.A., 1956 through 1966, increase — 146% (corrected for variables).



As engineers and scientists seek the answers to the desire that the 8mm film system be made so simple that a six-year-old child can operate a foolproof projector, the nontheatrical film and audio-visual field is on the verge of a new era.

Unless there is an unpredicted setback or recession in early 1968, it appears that the audio-visual activity could pass the billion dollar mark by the end of 1968. It would take only a 3% increase for 1967 and 1968 to reach that figure.

APPENDIX

Explanations and Definitions

To better understand and interpret the information contained in this report, the following explanations and definitions of various segments should be helpful. Generally speaking, all of the statistics are based on the calendar year of 1966. Whenever possible, other fiscal-year or school-year figures were adjusted accordingly to fit the calendar year.

Markets

Business and Industry. This market includes all film and A-V expenditures by business firms and related trade associations. Labor film activities are counted here.

Education. This section includes expenditures of public, private and parochial elementary and secondary schools plus institutions of higher learning which are chiefly colleges and universities, both state and private. Also included are business and trade schools. As part of education are the various teacher, administrative and related organizations.

Government. Included is information on over 40 U.S. Government agencies and twice that number of state and local film units. United Nations film efforts, when of U.S. origin, are included here.

Religion. All church and synagogue A-V spending plus the costs of denominational, local, state and national groups are covered.

Community, Social Service and Recreation Agencies. Usually called "community" for brevity's sake in this report, this market includes a wide variety of activities. Principal ones are youth organizations, recreation and sport agencies, social welfare groups, community fund units and public libraries, in addition to any organization which does not easily fit anywhere else. An example might be the propaganda groups pushing for world government. Professional athletics are counted here while high-school and

college filming is in the education market. Although libraries are supported by public funds, they serve the community and are included here.

Medicine and Public Health. The first five markets are basic groups. All of the five above have some medical, dental and health activities. Because this is the largest of specialized markets (another is agriculture) which cuts across the others, it is separated for statistical purposes. For example, sometimes the Federal Government medical activities (Veteran's Administration, U.S. Public Health Service, National Institutes of Health, etc.) are included within the Government category, but not when the total A-V field is being considered.

Export Market. As in last year's report, an estimate for United States sales of A-V equipment and films abroad is included. Canada is considered as part of the export market.

Categories of Expenditures

Production. While primarily motion-picture production, this category also includes filmstrip production which is too difficult to identify and separate. Television commercial production is not intentionally included, but occasionally might be included where small producers do a little TV work along with their sponsored film production. In the case of producers selling prints to a certain market (i.e. education or religious usually) only the production portion of their operations is included here. All in-plant production work (industrial, government, university, religious denominations, community agencies and medical units) is included.

Release Prints. This type of expenditure is for the actual print cost coming from the commercial lab or in-house lab. It does not represent the selling price of educational prints, for example. Most of the prints are 16mm plus a growing amount of 8mm printing. A small amount is for 35mm prints. Included are costs of shipping cases, reels and cans.

Distribution. This category includes three basic items. For sponsored films, it is the amount paid by a firm to a commercial film distributor to circulate copies of a production. For independent distributors (sometimes also the producer) selling primarily to schools and churches; it includes the total cost of marketing prints (salesmen's compensation and expenses, advertising and other selling costs). It does not include the production or release print costs.

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The third item is the cost within an organization such as that of a school system of circulating films and other A-V materials to individual schools. It would also include similar activities of a business firm (including "hidden" costs) and the operation of public libraries.

Motion Picture Equipment. This column consists of expenditures for 16mm sound projectors, 8mm sound and silent projectors, special motion-picture projectors such as the analyst type, 16mm and 8mm cameras, sound recorders used in production, editing equipment, lighting equipment and other studio and production items (i.e., animation stands, etc.).

Other Audio-Visual. Included here are equipment and material sales which are too small to warrant a separate category, or which represent the product of a single manufacturer and therefore would disclose privileged information if listed, or for which factual data are skimpy and therefore consist of "educated guesses" on the part of A-V experts. It is desirable that in coming years more of this information be broken down and released publicly. Items include: **projectors** — filmstrip, sound filmstrip, 2 x 2 in. slide, 3 1/2 x 4 in. slide, overhead, opaque, micro-projectors, and accessories; **audio products** — tape recorders, record players, TV receivers, language labs, radios, microphones and public address systems; **materials** — 35mm color film for slides, larger-size film for slides and picture work, materials for making transparencies for overhead projectors, phonograph records, magnetic tape, ready-made overhead transparencies; **miscellaneous equipment** — projection screens, projection stands, reading and tachistoscopic devices, random access projectors, transparency-making equipment, slide-binding equipment, room darkening shades, film inspection machines, dry mounting presses, easels and electronic panels, lecterns, mechanical lettering equipment, and planetariums; and **replacement items** — projection lamps, belts and replacement parts.

Administration. This final category covers the wages and salaries of A-V directors and others administering programs, secretaries, operating costs not included elsewhere, travel expenses, capital expenditures not covered as part of a film production or laboratory company, and overhead costs of school, religious, business and other A-V units. Also in a general sense would be the portion of salaries for persons who devote half or less time to A-V work. This would include 70,000 to 100,000 parttime school A-V coordinators responsible for A-V activities in an individual school. Not included would be the administrative costs of commercial film producers, educational film producers and distributors and other independent companies whose costs would be covered by the products which they sell.