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VISUAL EDUCATION DEPARTMENTS IN EDUCATIONAL INSTITUTIONS

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VISUAL EDUCATION DEPARTMENTS IN EDUCATIONAL INSTITUTIONS.

PART I.

Professional Status of Visual Education Officers.

As visual education departments are very recent additions to educational systems, their place in our educational institutions is not very well defined. It is desirable as early as possible (1) to find out what the existing practices are, (2) to institute comparisons among them, and (3) to use these as furnishing clues for establishing the most desirable types and standards.

There are two groups of educational plants that have concerned themselves with an organized distribution of visual aids to schools. These are (1) larger city schools systems and (2) State institutions.

The necessary information concerning the present status of visual educational departments was secured by sending inquiries to these two educational groups. The questionnaire was sent to cities most likely to have such departments. These were the cities of 100,000 population or over, 73 in number, and one smaller city, Berkeley, Calif., 74 in all. It was also sent to the State institutions of higher learning and to one State normal school, making 78 higher institutions. To the two groups 152 questionnaires were sent.

Replies were received from 40 cities, or 55 per cent of those sent out, and from 54 State institutions, or 68 per cent. Sixty per cent of all questionnaires were returned. The institutions that did not return the questionnaires were invariably those that did not have departments of visual instruction. The returns were 100 per cent from the qualified institutions.

A large proportion of the total returns indicated some form of distribution or use of visual aids. But not all of them had a special department or officer for handling the distribution. As the inquiry was directed especially to the relation of such special officers to the school staff, only those cases are used in this paper that had reached a degree of organization requiring a special officer or one whose principal duties related to visual instruction.[1] A presentation of the more loosely organized systems and an examination of a different

[1] In doubtful cases the presence of a definite budget or appropriation became the determining factor.

group of facts which were secured from the data are reserved for a later study. In this summary no institutions were included which merely used visual aids instead of distributing them.

A. IN STATE INSTITUTIONS.

Visual instruction departments started as extension activities in the State institutions, and these will be considered first. Twenty of these from which reports were received showed the departments sufficiently well organized to employ special officials, to handle visual aids. The New York State Department of Education and the Massachusetts State Department of Education conduct a visual instruction service and are included in the list. So also is the Philadelphia Commercial Museum, which receives an annual State appropriation, and conducts a state-wide service.

The full questionnaire included 27 points. Only the first 8 are considered in Part I. They deal respectively with departmental relations, titles of chief officers of visual instruction, duties, qualifications, salary, rank, assistants, and budgets. These relate to the professional standing of the departments and their personnel, and were considered important enough to constitute a separate phase for report.

Other topics relating to the character of the visual aids used and the extent and nature of the distribution are reserved for a later consideration.

The summaries and some observations based on the data may prove of some interest.

All of the 20 departments did not report on all of the items; so that the averages cited are computed sometimes from a less number of cases than 20.

TABLE 1.—VISUAL EDUCATION DEPARTMENTS IN STATE INSTITUTIONS, 1922.

Institution.	Department.	Chief officer of visual instruction.						Budget, less salary.
		Title.	Duties.	Qualifications.	Salary.	Rank.	Assistants.	
University of Arkansas.	General extension division.	Director bureau of visual instruction.	"Securing and distributing good visual material; giving information in regard to visual instruction; general promotion of work."	1. Ph. D. University of Chicago. 2. Professor of mathematics, University of Arkansas several years.	$3,750	Full professor.	One secretary, 1 stenographer, 1 shipping clerk.	$900.
University of California.	Extension division.	Secretary of department of visual instruction.	----------	1. Shop experience 9 years; special training in physics and exhibits.	2,280	Department head.	One full time, two part time.	$5,500.
University of Colorado.	Extension department.	Secretary of bureau of visual education.	"Spreading visual instruction throughout the State."	1. B. A. 2. Instructor in mathematics University of Colorado. 3. Special training in physics and electricity.	1,400	Assistant professor.	Part time clerk, stenographer.	$250.
University of Florida.	General extension division.	Secretary department general information and welfare.	"Booking visual aids, books, plays, etc.".	1. A. B. 2. Special training in preparation of exhibits.	1,500	----------	One student stenographer, 2 student shipping clerks.	$2,000.
Indiana University.	Extension division.	Secretary of bureau visual instruction.	"Administrative, experimental, custodial; in charge of distribution in State chiefly; acts with teaching departments in visual material on campus; course in visual instruction in summer."	1. A. B. 2. Courses in education; assists in teaching. 3. Some practical experience in mechanical work; special training in preparing of exhibits.	2,000	Instructor.	One in charge of slides; 1 of picture exhibits, 3 for film and slide inspection, shipping, etc.; 1 stenographer part time.	$9,097.
Iowa State College.	Agricultural and engineering extension.	Assistant professor in charge visual instruction service.	"Administrative".	1. B. S. 2. Graduate in education; 11 years' teaching. 3. College physics.	2,600	Assistant professor.	Part time clerk and stenographer.	Not budgeted.
Kansas State Normal School.	Extension division.	Secretary of visual education.	"Booking films; arranging programs; working up slide sets."	1. B. S. in Education. 2. Nearly 8 years' teaching.	----------	----------	Students inspect and care for films and slides.	$1,500.
Massachusetts State Department of Education.	Division university extension.	Director university, extension (agent).	----------	1. A. B. 2. College courses in education. High school teacher. 3. Special training in electricity, physics, and preparing exhibits.	2,000	Agent.	One instructor, 1 clerk.	Self-supporting.

TABLE 1.—VISUAL EDUCATION DEPARTMENTS IN STATE INSTITUTIONS, 1922—Continued.

Institution.	Department.	Chief officer of visual instruction.						Budget, less salary.
		Title.	Duties.	Qualifications.	Salary.	Rank.	Assistants.	
Minnesota University.	Extension department.	Head of department of public service.	"Determine policies; select materials."	1. B. A. 2. Three years in high school and grades.	$2,750	Department head.	General assistant; inspection girl; stock boy; 2 stenographers.	$1,000.
Mississippi Agricultural and Mechanical College.	----------	Supervisor of visual instruction.	"To assist instructors in planning use of visual aids in class instruction and extension work and secure material for them.	1. B. S. 2. Specialized in education and allied subjects; no teaching experience; 3 years in present position. 3. Special training in exhibits.	1,800	----------	One student	$700.
University of Missouri.	University extension.	Associate professor in charge of visual education.	"Teaches visual methods; supervises production and distribution of aids."	1. B. S. 2. Teachers' college; taught in rural high schools and college. 3. Shop courses, manual training, special training in physics, electricity, and preparation of exhibits.	3,500	Associate professor.	One full time; 2 part time.	Not definite at present; asking for $10,000.
North Dakota Agricultural College.	Extension department.	Officer in charge publications, regulatory work, visual instruction.	"Selecting, purchasing, and renting films and slides; overseeing shipping and repair."	1. B. S. 2. Three years' farmers' institute work. 3. Seven years in teaching. 4. Eleven years editor college publications.	----------	Department head.	One shipping and recording clerk; part-time stenographer; 1 part-time photographer.	$200.
University of New York.	State education department.	Chief of division.	"Collects photographic negatives and makes slides and prints, high-grade carbons and gravures, color prints for walls; distribution of above; passes upon projection apparatus and works of art for which State grants appropriations; evaluates visual aids and makes suggestions."	1. Ph. B. Cornell. 2. Eighteen years' teaching.	3,750	Director of division.	One general assistant; 1 specialist to prepare slides and prints; 1 in charge of loans; 3 stenographers; 7 clerks.	$15,000.

University of Oklahoma.	Independent department.	Associate professor of education and director of department of visual education.	"Directing extension activities in department; teaching courses in visual education and other courses."	1. M. A. in education. 2. Fifteen years in public schools. 3. Special training in physics, electricity, and exhibits.	2,800	Associate professor.	One secretary; 1 shipping clerk; 1 film inspector.	$1,000.
University of Oregon.	Extension division.	Assistant director of extension.	"Selecting material; making it known; preparing lectures, etc."	1. A. B. 2. Schools of education, 7 years as principal and superintendent.	3,200	Assistant professor.	One technical assistant; 1 stenographer; occasional help from others in extension department.	Spent $1,000 for films last year.
Philadelphia Commercial Museum.	Commercial Museum.	Curator	"Care of museum and its exhibits."	1. High-school diploma and various special courses. 2. Special courses; teaching experience and lecturing to schools for 25 years. 3. Special training in physics and preparation of exhibits.	-------	Curator	Ten assistants (2 of them licensed operators); some of these employed at stationary museum exhibits.	$15,000 appropriated annually by legislature; other funds also.
Texas Agric. and Mech. College.	Vocational teaching.	Associate professor of agricultural education.	"Teaching education"	1. B. S. and Normal diploma. 2. Twenty semester hours in education. 3. Special training in preparation of exhibits.	2,625	Associate professor.	One stenographer.	$1,200.
University of Texas.	Visual instruction division.	Head of visual instruction division.	"Supervise routine and policies."	1. B. A., Ph. D. 2. Education Columbia University; 7 years public schools; 1 year university. 3. Special training in physics, electricity, and preparation of exhibits.	3,910	Dept. head and associate professor.	Librarian; mechanician; slide inspector; secretary; stenographer; artist.	$2,000.
University of Utah.	Visual instruction bureau.	In charge of bureau of visual instruction.	"Supervising all visual activities."	1. B. S. School of Education. 2. U. S. Bureau of Education; U. S. Bureau of Public Health; U. S. Surgeon General's Office; Lecturer Univ. Pittsburgh. 3. Three years motion picture laboratory; licensed operator; special training in electricity and preparation of exhibits.	1,800 part time.	Specialist	One secretary-stenographer; 1 film inspector and shipper.	$8,000.
University of Wisconsin.	University extension.	Chief bureau visual instruction.	"Administrative"	1. Experience in education 25 years.	-------	Dept. head and associate professor.	Twelve assistants.	$22,000.

[1] Work reorganized 1922-23 and placed with another department to reduce expense. In 1921-22 it carried a total budget of $6,000.

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COMMENTS ON TABLE 1.

UNDER WHAT DEPARTMENT.

Ten institutions report visual instruction departments under extension divisions, which was to be expected, as the distribution of visual aids is clearly an extension function. As to organization, therefore, most frequently it is not technically related to the teaching staff of the colleges, but as to service, qualifications, and spirit it is very closely related to the teaching on the campus and in the schools of the State. Nearly all these men report that, though they are in extension, they nevertheless attend faculty meetings. As they supply campus classes with visual aids, this is a very desirable feature.

The Philadelphia Commercial Museum is a unique institution, but as it gets $75,000 a year from the State, and its material is available to the schools of the State, it is really functioning as a State institution for the distribution of visual aids.

TITLES.

Seventeen different titles are used in the institutions reporting a special officer for visual instruction. They present the heterogeneous character to be expected in pioneer departments, where there has hardly been time to develop a consistent terminology. Here is the list:

Secretary Department of General Information and Welfare.
Agent for Visual Education.
Associate Professor in Charge Visual Education.
Associate Professor of Education and Director Department of Visual Education.
Associate Professor Agricultural Education.
Assistant Professor in Charge Visual Education.
Head of Department of Public Service.
Chief of Bureau of Visual Instruction.
Head of Visual Instruction Division.
Head of Visual Instruction Bureau.
Secretary Bureau Visual Instruction.
Director Bureau Visual Instruction.
Assistant Director Extension.
Officer in charge Publications, Regulatory Work, and Visual Instruction.
Supervisor of Visual Instruction.
In Charge Visual Instruction Bureau.
Curator.

The terms "visual instruction" and "visual education" are used interchangeably, as are also "bureau" and "department." Visual instruction departments generally have not been planned long in advance, and usually have "growed up" Topsy-like from the interest of some individual instructor or extension worker. The location of

the visual instruction work in a department depends very largely on the department in which this interested individual was originally located. And the title follows the same principle. The location and titles of the new departments therefore are not logical, but psychological.

DUTIES.

The *duties* attaching to the new departments present as rich a variety as the titles. Twelve are especially mentioned. The data show that—

(1) All officials supervise the distribution of visual aids.

(2) All officials select, and either purchase or rent visual aids.

(3) Four report that they have supervised the production of films.

(4) Four report that they prepare the synopses of the films or lectures for the slide sets.

(5) Five specify under *duties* that they give courses in visual instruction to either students or teachers, but elsewhere on the questionnaire it would appear that 15 give such courses.

(6) Two state that they manufacture slides, but other portions of the questionnaire indicate six institutions manufacturing slides.

(7) Three have conferences with campus departments to plan visual aids for class instruction.

(8) No one mentions the printing of programs, bulletins, labels, and other printed matter; but undoubtedly that was taken for granted, as a fully equipped department requires a wide variety of labels, records, lists, and forms.

(9) One "spreads visual instruction throughout the State."

(10) One "collects photographic negatives and makes slides and prints. Also distributes high-grade carbons, gravures, and color prints for school walls. Passes upon projection apparatus and works of art, for which State grants aid to schools. Evaluates visual aids and makes suggestions."

Altogether, it would seem that directors of visual education have discovered duties enough to keep a full-fledged department profitably busy throughout the school year. The year divides itself roughly into two six months periods—the busy period of booking, from November to April, inclusive, and the dull period from May to October, inclusive. While the dull period was light in bookings, the extra time was profitably employed in searching the country for new material, repair and better organization of old material, and in the summer especially in conducting teachers' courses in visual instruction.

The specifications given under duties, however, are misleading, as data given elsewhere on the questionnaire add materially to the duties specified under that question. (See Table 3 on the evaluation and distribution of visual aids in educational institutions.)

QUALIFICATIONS.

The new department is fortunate in having a good start, so far as educational qualifications of its officials are concerned. In 17 of the 19 institutions reporting on this point, the incumbent has a bachelor's degree, in 4 of them a master's and in 3 the doctor's degree. Eleven of the visual instruction officials have also had college courses in education, and all but three have had experience as teachers. This means that the growth of visual instruction departments is primarily a teacher movement and not a commercial development. Indeed, it is a development despite commercial exchanges, which have sided with the theaters in their opposition to supplying films to educational institutions. Important modifications to this policy have recently been made. The educational experience points to a high level of pedagogical skill in applying the visual aids to school subjects.

While only one of the institutional group reports the director to be a licensed operator, 10 of the 20 report special training in physics, electricity, or mechanics, and 11 in the preparation of exhibits. Except in a one-man department, it is entirely unnecessary that the official be a licensed operator, as one of his assistants may have that qualification. A knowledge of physics, especially electricity, however, is very desirable, as the director frequently has to pass on wiring and connections, lamps, etc. So also some training in the preparation of object or museum exhibits is desirable for administering a well-rounded system of visual aids. In no case was this special training in preparation of exhibits shown to have been taken in a course of study. It was probably gained through experience. The increased demand for portable exhibits would seem to justify the establishment of special courses at some of our institutions.

Five men report supervising the production of films. This introduces a special line of preparation, such as scenario writing, moving picture camera work, and studio experience. While assistants can be hired for such work, such help is expensive; and at any rate the director can give better supervision and suggestions when he has had some previous training in film production. Columbia University has a course in moving-picture production. It is possible some help could be obtained by special arrangement with moving-picture directors in studio work and on location. Universities like the University of Wisconsin and Nebraska,[1] which have equipment for moving-picture production, are usually quite willing to permit observation of their work.

[1] No report could be obtained from the University of Nebraska, which leads all the rest in film production and was reported recently as having built a $20,000 moving-picture studio on the campus. This work is done, however, under a State division of conservation and surveys rather than under visual instruction.

It would seem that on the basis of present practice, the bachelor's degree, one course of education, and one year of teaching experience could easily be set down as minimum requirements for directors of visual instruction. Directors frequently make out the synopses of the films; write lectures for the slide sets; arrange educational programs for schools, clubs, and societies; and attempt correlation and classification of films, slides, and exhibits, with reference to the whole course of study in elementary and high schools, and in the normal schools and colleges as well. The selection of appropriate films alone is a task for broadest and deepest scholarship. A few directors have directed the production of films. Here, again, this is no task for the uneducated man. A master's and a doctor's degree are not beyond the demands of such a program.

SALARY.

There is a wide variation in salary, depending more on the conception governing the admission of the new work into the system than upon the size or resources of the institution. The range of the 17 institutions reporting on this item is from $1,200 to $3,900, and the average is $2,521.

RANK.

The rank in the teaching staff seems to have been determined frequently by the previous position held by the official instrumental in organizing the work. This seems evident where the terms "assistant professor," "instructor," and "agent" are used. Nine cases rank as "heads of departments," though the title used may be "secretary," "assistant extension director," or "assistant or associate professor." Head of department then may be regarded as the central tendency for rank of the new officials in the State institutions. Seven are either associate or assistant professors, and also in charge of visual instruction, but of these I have listed only those whose chief duties were visual instruction.

ASSISTANTS.

The long list of assistants named is descriptive of the lines of work carried out in visual instruction departments. Twelve different assistants are named for as many lines of work. The most common are stenographer, general clerk, and shipping and booking clerk. The University of Wisconsin bureau of visual instruction has 12 assistants. Two university departments have 6, and one, 5. One college reports 5 assistants, all part time. Employment of part-time assistants, including students, is a common practice and is both economical and convenient for the shipment and repair of slides and

films. One department frequently shares the stenographer with another. Of the 20 departments, only 1 apparently has a moving picture camera man, and but 2 have a part-time stillpicture photographer. Part-time photographers, for both still and moving pictures, are very useful adjuncts to visual instruction departments.

BUDGETS.

One is impressed with the small size of the budgets, less salaries. In most college departments the salary is the main expense, and when the salary of the professor is provided for, that is the end of it. In all but seven cases the salary greatly exceeds the rest of the budget. Four have no budgets but are dependent upon gifts or allowances from the main department or some general fund. The range of the budgets, less salaries, in the State institutions or departments reporting is from $200 to $22,000, and the average is $4,808. Among the State institutions the University of Wisconsin is in a class by itself, its annual budget being $22,000. The next highest budget is $9,000 at the Indiana State University.

If we leave out the two large budgets from the Philadelphia Commercial Museum and the State Department at Albany, N. Y. ($15,000 each), the average for the State institutions drops from $4,808 to $3,553.

The best organized departments show an annual budget, and one large enough to permit the purchase of slides and films and in a few cases their manufacture. A visual instruction department is primarily concerned with materials to be distributed. Its nearest analogy in a State institution is the library, although the distribution covers a much wider territory. Institutions contemplating such departments should bear in mind that an initial expenditure of a comparatively large sum of money is needed to procure a stock of slides, films, and exhibits worth the distribution. Commercial and propaganda materials on a more or less free basis, with which many departments had their start, are of uncertain educational value, and while many of them are incidentally of high informational merit, the main reliance of educational distributing agencies must be upon materials produced by educators for educational ends. Just what amount should be available is difficult to state. The writer ventures suggesting, however, a proportion. The budget for materials should at least equal the budget for salaries of officials who are to handle the materials. Two of the States reporting support more than one center of distribution. Where the State supports the service, it will materially reduce expense to have only one center of visual instruction in a State. It will then be possible to give that center adequate funds for a state-wide distribution.

B. IN CITY SCHOOL SYSTEMS.

Though State institutions were the pioneers in establishing departments of visual instruction, the cities have passed them in the organization and support of these departments. Of the cities replying to the questionnaire, 14 have reached the standard set up in this investigation, namely, the organization and support of a special department with a special officer to administer it.

TABLE 2.—VISUAL EDUCATION DEPARTMENTS IN CITIES, 1922.

City.	Department.	Chief officer of visual education.					Assistants.	Budget, less salary.
		Title.	Duties.	Qualifications.	Salary.	Rank.		
Atlanta, Ga.	Visual education department.	Head of department of visual instruction.	"Adapt course to visual education." (Adapt visual education to course.) Prepare and ship material.	1. A. B., A. M. 2. Summer courses in University of Chicago and Columbia University. 3. Teacher.	$3,000	Director	Three assistants.	$10,000.
Berkeley,[1] Calif.	Visual instruction.	Director	Building up a distributing center; training teachers in methods of procedure; writing monograph with a committee of 18.	1. Normal diploma. 2. Courses in education, University of California and Columbia University. 3. Seventeen years experience as high-school teacher.	2,760	do	One clerk	$5,000.
Buffalo, N. Y.	Buffalo Society of the Natural Sciences.	Director visual education department.	Selection, organization, and distribution of slides and exhibits	1. A. B., M. D. 2. Twenty years experience in visual instruction. 3. Licensed operator.			Seven assistants, of whom 2 are technical assistants in photography.	One-fourth total income of society.
Chicago, Ill.	Educational	Director of visual instruction.	Everything pertaining to administration of visual instruction.	1. S. B., LL. B., LL. M. 2. Forty years in public school work. 3. Special training in physics, electricity, and preparing exhibits.	5,500	Director	Seven assistants.	$20,000.
Cleveland, Ohio.	Executive	Director of educational museum.		1. B. 2. Normal diploma. 3. Licensed operator; special training in physics, electricity, and preparation of exhibits.	4,080	do	Curator and 2 assistants.	$10,000.
Detroit, Mich.	Visual instruction.	Supervisor	"Take entire charge of film, slides, and machines, and instruct in their educational use."	1. A. B. 2. Graduate work in education, Teachers College, Columbia University. 3. Three years as principal of school.	3,900	Supervisor	One assistant, 1 clerk, 1 chauffeur.	$18,000.
Indianapolis,[2] Ind.	Visual education.	Visual education (also school principal).	"Training in use of materials; arrangement of programs, cataloguing."	1. A. B. 2. Teacher and principal.	2,800	Director		$5,000 (1921-22).
Kansas City, Mo.	Visual instruction.	Director	"Selection of material and programs; training teachers in use of materials."	1. M. A. 2. Thirty-seven college hours, 21 years' experience. 3. Shop work; special training in physics and electricity.	3,000	do	One stenographer, 3 operators.	$6,000

Los Angeles, Calif.	City school library.	Head of visual education division.	In charge of all visual education in all schools of Los Angeles; duties natural to such a position; supervision of all phases of work; special attention given to film work, and any assistance we may render to producers.	1. About ready to A. B. from University of California. 2. Graduate work in library of Los Angeles public library; 4 years teaching; 12 years library work. 3. One assistant, licensed operator who has also had studio experience.	.....	Head of visual education of the city school library.	One chief projectionist, 1 booking clerk, 1 clerk, 1 stenographer, 1 delivery man, 1 half-time operator.	$23,753.
Newark, N. J....	Visual instruction.	Assistant superintendent of schools.	"Supervision of 500 teachers and director of visual instruction; make out digests shipping; arrange programs and schedules; purchase and rent materials."	1. Albany Normal College.... 2. Albany Normal College. 3. Thirty-five years as teacher, principal, and assistant superintendent.	6,100	Assistant superintendent.	Two secretaries for office, 1 operator, 1 assistant	$10,000.
New York, N. Y.	Bureau of lectures and visual instruction.	Director of lectures and visual instruction.	Supervision of illustrated lectures for adults; distribution and use of slides and films in schools.	1 M. A..... 2. Graduate work in language, literature, and pedagogy; 15 years teaching and supervision. 3. Special training in physics and preparation of exhibits.	6,600	Director.....	1 stenographer, 1 teacher assistant, 1 contractor to furnish films and operators on schedule.	$25,000.
Pittsburgh, Pa..	Nature study and visualization.	Director.....	"Make up the budget; requisition material required; organize and direct distribution of material and return of same; keep in touch with museums and other organizations having visual material; keep material up to standard; supervise visualization in the schools."	1. Normal and college degrees. 2. Master in education, Columbia University; graduate work at Columbia University and University of Pittsburg; experience in all grades of school work. 3. Licensed machine operator; special training in college physics.	4,000	Director.....	Seven assistants.	$14,200 (nature study and visualization).
San Francisco, Calif	Visual instruction.	Deputy superintendent and director visual education.	"Everything pertaining to administration of visual instruction."	1. State Teacher's College and high-school diplomas. 2 Twenty-one years teacher and principal and deputy superintendent.	3,780	Assistant superintendent and director.	None.....	$2,050 spent in 1921-22.
St. Louis, Mo....	Educational museum of the public schools.	Curator educational museum.	"Securing and rendering fit for transportation visual aids of every conceivable sort."	1. St. Louis high and normal schools; various and sundry college courses. 2. See above. 3. Fourteen years of teaching.	2,800	.....	Two ex-teachers; 1 stenographer, 2 packers, 2 checkers, 2 chauffeurs, 1 chief clerk, 1 shopman.	$4,000.

[1] Population 56,036 (1920), included in this list because the department is organized on scale of larger city. Director spends three days at San Francisco State Normal College and two days at Berkeley.

[2] Work discontinued in 1922-23.

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COMMENTS ON TABLE 2.

All cities reporting except one have visual instruction departments nominally under the school board, but directly under the superintendent. The relation of the official to the staff seems to be that of supervisor, assistant superintendent, or else a director for a special department, as research.

The duties are practically the same as noted in the State institutions, except that the shipping department becomes here a transportation department, and a new helper appears in the form of a chauffeur, who delivers the material on schedule or on call.

In general the same high qualifications prevail as in the institutions. In three of the cities a director of visual instruction is a licensed operator, and in four of the other cities licensed operators appear among the assistants. One of them had had motion picture studio experience.

The salary average is much higher in the city departments than in the colleges; it being $4,030 in the cities, as against $2,521 for the institutions reporting on this point. This, in fact, is a general difference in salaries, as between the larger cities and the colleges, for officials and professors of similar qualifications and rank.

The budgets show a still larger disproportion. The average budget, less salaries, for 13 cities is $11,692, while for the State institutions reporting on budget the average is $4,808. As the State institutions attempt to supply the schools of the whole State, it is difficult to see how a high standard of service is maintained on such meager budgets. Some of the institutions charge a small fee for handling, but that would not materially change the average. The range of the budgets, less salaries, in the cities is from $5,830 to $31,600. The largest institutional budget was $22,000, at the University of Wisconsin, and it stands quite alone. The nearest State institutional budget was $9,000.

New York has the outstanding department with a total budget of $31,600. Chicago is next, with $25,500; Los Angeles is the third, with $23,700, less salary, which is not reported; and San Francisco is fourth, with $23,000. Detroit is a close fifth, with $22,000. New York's contractual system is unique among the cities. One firm is given the contract for assembling the films from the different exchanges, distributing them to the schools on schedule, and furnishing operators when needed. The director thus relieves himself at one stroke of a complicated job. He reports that the system has worked admirably so far.

A very promising form of service, independent of the schools but cooperating with them, is the distribution of visual aids by public museums, public libraries, and public art galleries. The museums

stress portable exhibits of objects, while the libraries and art galleries emphasize lantern slides and prints. As most of these institutions do not maintain a special officer for visual instruction, and do not have a specific budget for this purpose, they fall outside the scope of this inquiry. A special study will undoubtedly be made of them. The Philadelphia Commercial Museum was included in our tabulation, as it classifies as a State-supported institution. Its report is included in the table of State institutions in Part I. The Cleveland and St. Louis museums are parts of their respective school systems and are listed in the table of city school systems. The Buffalo Society of Natural Sciences supplies the schools of the city with visual aids and maintains a special director of visual instruction. Its report is included in the table of city school systems. The 1916 report of the United States Commissioner of Education reports 32 public museums distributing visual aids to schools and social centers.

PART II.

Evaluation and Distribution of Visual Aids.

A. VISUAL AIDS IN STATE INSTITUTIONS.

TABLE 3.—EVALUATION AND DISTRIBUTION OF VISUAL AIDS IN EDUCATIONAL INSTITUTIONS—PART I.

Institutions.	Per cent of expenditures for—								Courses in visual instruction.		Legal troubles.	Legal requirements.	Legal modifications.
	Films.			Slides.			Exhibits.						
	Rented.	Purchased.	Produced.	Rented.	Purchased.	Produced.	Purchased.	Produced.	Given.	Weeks.			
Arkansas University									Yes				
California University		36			9						None	Buildings inspected by underwriters.	
Colorado University											None	Booths for arc lights	
Florida University		50			35						None		Portables permitted.
Indiana University		99	1		85	15	60	40			Rules of Nat. Fire underwriters.	Booths required, not enforced.	General use of portables.
Iowa State College		(1)				(1)					None	Rules of fire marshall	
Kansas State Normal School.	20					66			Yes	8		Booths required	None.
Massachusetts State Department.					20	10	10	50			Inflammable film not permitted.	Booths required	For narrow width machines.
Minnesota University		80			20						Trouble with portables	Booths enforced	Operators lax.
Missouri University									Yes	18	Rules Fire Insurance Underwriters.	No State law	
Mississippi Agri. and Mech. College.		1										None	
North Dakota Agri. College.		60	20			20			Yes	6	Fire rules not enforced in schools.	Reg. State fire marshal.	Portables permitted in practice.
New York State Department.					(2)						Booth and licensed operator required for portables.	Portables permitted by law.	For 350 W. light or noninflam.
Oklahoma University		80			20				Yes	(3)			
Oregon University		100									No law	Underwriters	Portables permitted.
Philadelphia Commercial Museum.											None		For noninflam.
Texas Agri. and Mech. College.									Yes	18	None		Portables permitted.
Texas University						100			Yes	(4)		General	General.
Utah University	6	6	12		6				Yes	6	None	Booth and licensed operator required.	
Wisconsin University											None	Rules State Indus. Com.	None.

Institutions.	Chief sources of films.	Films produced.	Films of highest educational value.
Arkansas University	Ford; U. S.; Kleine; Bray Exchanges	None	S. V. E. Animal Studies and Magnetism—Gen. Electric films.
California University			
Colorado University	Purchase; Kleine; U. S.; Bu. Com. Econ.	May Fete	Julius Caesar—Story Mt. Glacier.
Florida University	Industrial firms; Kleine		Julius Caesar—Pompeii—Deliverance.
Indiana University	Ford; U. S.; Kleine; Bu. Com. Econ.	Several on athletics and univ. activities	Julius Caesar—Kidnapped—Silas Marner—Travel.
Iowa State College	U. S. D. Ag.; Ford; N. Y. exchgs.	Soils	Four Seasons—Hist. of Telephone—Caesar—Selecting Laying Hen—Embryology of Egg.
Kansas State Normal School	Industrial firms	Local interests; As You Like It (2); Girl from Emporia; Three days at K. S. Normal.	Exit Ascoris—Out of Shadows.
Massachusetts State Department.	U. S.; Industrial firms		Revelations—The Benefactor—A Woolen Yarn.
Minnesota University	U. S.; Industrial firms	None	Priceless Gift, Health—Making Desert Blossom.
Missouri University	Purchase and loan	Missouri Farmer's Fair	
Mississippi Agri. and Mech. College.	Bu. Com. Econ.; U. S.; Kleine; exchanges	Miss. A. and M. Col.; Farm mechanics	Orange Jud Films—Making Telephone History.
North Dakota Agri. College.	U. S.; Kleine; Com. Mot. Pict. Bu.; Ford; Bu. Com. Ex.; Com. firms.	Campus activities; State Fair	Milk, Nature's Perfect Food—Milky Way—Revelations.
New York State Department.	No films		
Oklahoma University			
Oregon University	Bu. Com. Econ.; Ford; Industrial firms; Kleine.	University of Oregon	Julius Caesar—Come Clean.
Philadelphia Commercial Museum.	All sources; own cameras	Lumbering in Pa.; Coal in Pa.; Strawberries in Pa.; Cranberries; rice; cotton.	Cotton—Rubber—Silk.
Texas Agricultural and Mechanical College.	Industrial firms		Milk as food—Romance of Glass.
Texas University	Bu. Com. Econ.	Football game	Back of the Button—Story of a Stick.
Utah University	Kleine; industries	Birds; Utah; How a law is made	Priceless Gift, Health—Julius Caesar—Auto Starting and Lighting—Mechanics of Solids and Liquids.
Wisconsin University	Production; purchases; gifts; rentals		Milk, Nature's Perfect Food—Diary of a Murderer—Silas Marner.

[1] Largest expenditure. [2] Slides, 80 per cent; negatives, 20 per cent. [3] Irregular. [4] Two courses.

TABLE 3.—EVALUATION AND DISTRIBUTION OF VISUAL AIDS IN EDUCATIONAL INSTITUTIONS—PART II.

Institution.	Method of distribution.	Correlation of aids with course.	What subjects correlated.	Who plans the correlation.	Kind of films used in—			Custody.	
					Classroom.	School assembly.	Community assembly.	Films.	Other visual aids.
Arkansas University	Call; some circuits.			Schools	Gen. ed	Gen. ed	Enter	1 place	
California University	Call	Yes		do	Text and gen. ed.	Text and gen. ed.	Text and gen. ed.	do	1 place.
Colorado University									
Florida University	Call	Some cases		Principal; schools					
Indiana University	Call; exhibits on circuit.	Some	Geog.; science; agric.	Teachers	Gen. ed	Gen. ed. and enter.	Enter	1 place	Do.
Iowa State College	Circuits and call	do	Agric.; geog	do		Gen. ed	Gen. ed		
Kansas State Normal School	Call	do			Gen. ed	Ed	Enter	1 place	Do.
Massachusetts State Department	do	Usually	Hist.; geol.; agric.; Eng.	Schools	do	Gen. ed	do	do	Do.
Minnesota University	do	Slide programs	Hist.; Eng.; hygiene; agric.	Teachers	Text	do	do	do	Do.
Missouri University	do	Some			Gen. ed				
Mississippi Agricultural and Mechanical College	Call and circuit	do		Sup. vis. instruction; schools.	Ed		Enter	1 place	Do.
North Dakota Agricultural College	Call; 2 circuits	do	Geog.; science; agric.	Department of visual instruction; teachers.	Text and gen. ed.	Gen. ed. and enter.	Gen. ed. and enter.	do	Do.
New York State Department	Call	Yes	All	Principal and v. dept.					
Oklahoma University									
Oregon University	Call	Some	All	Assistant director	Gen. ed	Gen. ed	Gen. ed	1 place	Do.
Philadelphia Commercial Museum	do	Yes	Commer. geog	Curator and teachers.	Text	do	do	do	Slides in each school.
Texas Agricultural and Mechanical College	do	None				do	do	do	1 place.
Texas University	do					Industrials and Kleine.			
Utah University	Call and circuit.	Yes	All	Principals and bureau.		50 per cent	50 per cent		
Wisconsin University	Circuit and call	do	Geog.; hist.; science; agric.	Chief of visual bureau.				1 place	Do.

Institution.	Visual aids most used.	Visual aids most useful.	Changes contemplated.	Per cent of visual aids to—				Extent of use by extension workers.	Most popular type with extension workers.
				Schools.	Communities.	Farmers.	Others.		
Arkansas University	Slides	Films	More films; may transfer slide sets to films.	65		25	10	Wide use, especially by men in Smith-Hughes schools.	Films and slides on agriculture.
California University		do		67	2	1	30	2 per cent	Films.
Colorado University	Films	Slides	Films for English classes.	75			25	Vocational and instructors' and women's clubs.	Films (gen. ed.).[1]
Florida University	do	do		90	10			Rarely	
Indiana University	do	do	Larger use of slides on campus; State Assoc. of Vis. Instr.; monthly bulletin.	65	17	9	9	Some use by extension workers.	Entertainment films.
Iowa State College	do			36		50	14	56 farm bureaus	Films.
Kansas State Normal School	do	Slides		87	5	5	3	Increasing	Do.
Massachusetts State Department	Slides	Exhibits	Plan circuits	60	10		20	Not much	Films and slides.
Minnesota University		Films, slides, exhibits.		70	10		20	A great deal	Agricultural films.
Missouri University	Films, slides			80		20		Wide use	Films.
Mississippi Agricultural and Mechanical College.	Films	Slides	More slide sets	33⅓	10	50	6	1,965 programs	Do.
North Dakota Agricultural College.				50		40	10	40 per cent extension workers.	Films—Agriculture, comedies.
New York State Department	Slides	Slides	Will add large photos	75	25			None	
Oklahoma University	Other pictures, charts.			90	8		2	Occasional	Do.
Oregon University		Slides		66⅔	17		17	A few	Do.
Philadelphia Commercial Museum.		Slides, other pictures, exhibits.							
Texas Agricultural and Mechanical College.	Films	Slides		20	50	75	5	Use 50 per cent of material distributed.	Do.
Texas University	Slides			80	15		5		
Utah University		Films	Increase slide library	70	10		20	Frequent use of special campaigns.	Films and slides.
Wisconsin University	Films, slides	Films, slides		50	[2] 50			Large use	Agricultural films.

[1] Gen. ed.=General education. Enter.=Entertainment.

[2] All others.

COMMENTS ON TABLE 3.

PROPORTION OF EXPENDITURES FOR RENTALS, PURCHASES, AND MANUFACTURE OF VISUAL AIDS.

Of the 20 institutions 13 reported on this point. Of the 13 only 2 rent films, 1 spending 6 per cent of the budget and the other 20 per cent. Eleven purchase films, spending from 6 to 100 per cent of their materials budget in film purchases. Thus the purchase of film prints, which was regarded as an impossible expense a few years ago, has become the prevailing practice in the State institutions. Seven of these eleven spend more than 50 per cent of their materials budget in film purchases, although the actual amounts are small.

This practice is in sharp contrast with the cities, which in a later table (Table 4) are shown to rent more of their films from local exchanges. The difference is easily explainable by the difference in opportunity and conditions of service. Most of the State institutions are located in small towns that do not maintain commercial exchanges, and their mail orders for special films could seldom be filled in such a way as to permit a satisfactory State-wide service to schools. The length of time the films are in transit in a State-wide system of distribution, and the differing demands from different schools, would make the rental system impossible. The State institutions depend on long-time loans from commercial and welfare agencies and on direct print purchases from such nontheatrical exchanges as United States Government bureaus, the Ford Motion Picture Laboratories, Society of Visual Education, the Bray productions, Charles Urban, and various film brokers. The United States Government—especially the Department of Agriculture—and the Ford Motion Picture Laboratories have set the pace for moderate prices in prints, as they furnish these at cost, 4 and 5 cents per foot for the inflammable stock and 6 cents for the noninflammable. The commercial firms charge from $80 to $150 per reel, except for the narrow-width variety, which is sold as low as $20 per reel by the Pathescope Co. and the United Cinema Co.

Only one State institution is known to purchase film negatives and thus acquire the right to manufacture and sell the prints. This is the University of Wisconsin, which has purchased the negatives of a large group of educational films and sells the prints direct to other institutions at about 6 cents per foot.

Five institutions, however, report having produced motion pictures on their own campus, usually with the aid of a camera man hired for the purpose. The University of Wisconsin has a motion picture camera man on a regular salary, but he is permitted to do work for other parties also.

No institutions report renting *slides* but 11 purchase them, and 8 of these make them on the campus. The New York State department of visual instruction and the University of Wisconsin lead the country in the production of this phase of visual aids.[1]

Only three institutions report either the purchase or production of *Exhibits of Objects*, whereas these form a major line of visual aids in the cities. Here again the reasons are obvious for the difference in emphasis. The cities have museums which specialize in this type of material, and the distribution is to a compact unit area, usually by auto trucks, involving but little packing and shipping risks and expense. The material is too bulky and fragile for most of the institutions to send out on a State-wide basis even if it were accessible to them. The University of Wisconsin, however, has just this year secured and distributed a large collection of anatomical models.

Singularly enough, no institution reports the purchase or distribution of *stereographs*, while in the cities again they constitute a major line of visual aids to schools. As these are neither expensive nor bulky, some other cause must account for this lack. One reason is that many schools in the small towns, as well as in the larger cities, purchased their own sets with the stereoscopes at a time when this was the only form of visual aids that had at its back a well-financed commercial agency, employing a large group of traveling agents.

COURSES IN VISUAL INSTRUCTION IN EDUCATIONAL INSTITUTIONS.

Eight of the twenty leading institutions having visual instruction departments, or four-fifths of them, also give courses in visual education. This is a remarkable development in the short time visual instruction departments have been organized. Seven of the eight report on the length of the courses, which varies from 6 to 18 weeks. These courses receive varying amounts of credit as college work.

LEGAL REQUIREMENTS AND LEGAL TROUBLES.

The almost universal use of inflammable film in distribution centers, until quite recently, accounts for most of the legal troubles experienced. The legal requirements in most States are fairly uniform and have been established for the most part by insurance underwriters, State fire marshals, and building inspectors. Some State legislatures have, in addition, enacted laws on the subject, but these usually follow the lead of the insurance and fire departments.

There have been few actual enforcements of these regulations in educational and religious institutions, but the knowledge that the

[1] The University of Wisconsin and the visual instruction department of the Chicago schools united in sending their slide colorists to Europe this summer to secure correct color values for their art slides.

law was being evaded has proved embarrassing to many churches and schools.

The wise action of some of the commercial distribution centers, and that of the United States Government departments has had a wholesome effect upon this problem, which soon promises to disappear. The Ford Motor Co., the De Vry Circulations, and the Society of Visual Education are prominent examples of firms that distribute only noninflammable or slow-burning films. The Ford Motor Co., while it still distributes some of its old prints on inflammable stock, uses only noninflammable for its new series, known as the Ford Educational Library. The Society of Visual Education uses noninflammable stock exclusively for films of its own manufacture; while the De Vry Circulations, maintaining an extensive free film distribution to educational and religious institutions, never send out a foot of inflammable film. Several other concerns are now following suit. The Government gives its patrons the option of inflammable or noninflammable, all of these on standard width film as used in theaters. Undoubtedly this practice will soon be universal among nontheatrical exchanges; as soon as the colleges realize that sufficient noninflammable film is available for their school and church patrons they will distribute the safety films only. These institutions should take the lead in the movement, as they will be peculiarly sensitive to the charge of encouraging lawbreaking.

Such noninflammable film of standard width is exempt from all restrictions as to storage, shipment, and projectors and booths, and once it is adopted exclusively, will greatly increase the use of films in all types of educational institutions. All welfare organizations desire this result. There are signs that even the theatrical firms may adopt the safety film.

Meanwhile, under the practice of using both inflammable and noninflammable film, the questionnaire reports that New York State passed amendments to its original law which permits the use of illumination up to 350 watts with portables using inflammable film.

CHIEF SOURCES OF FILMS.

Among the 20 institutions, the following sources were mentioned by name by several institutions:

	Institutions.
George Kleine, Chicago, Ill	8
U. S. Government, Washington, D. C	8
Ford Motor Co., Detroit, Mich	5
Bureau Commercial Econ., Washington, D. C	5
Commercial exchanges in general	2
Community Motion Picture Bureau, New York	1
Bray exchanges	1

Only the chief sources were asked for. Many institutions replied in general terms, as "Industrial firms," "Exchanges," and "All

sources." Thus many more institutions than the number indicated above used films from the firms mentioned, and a number of other sources were not mentioned by name at all.

Admitting that the sources specifically mentioned may not represent all the sources used in the right proportion, still they are the ones that occurred to the directors in answering the questionnaire, and undoubtedly they were regarded as important. It will be noticed that the commercial exchanges were mentioned but twice by the State institutions. This is in striking contrast to the returns from the city systems of visual instruction, which indicate that the commercial exchanges are by far the chief sources of supply.

The list is also suggestive of the varied character of the material still distributed by visual instruction centers. George Kleine and the United States Government head the list, with eight mentions each. Kleine was one of the first of the men engaged in theatrical production to sense the future demand of schools and churches, and instead of trying to suppress this demand, as most of the other film men did, he early, in association with Edison, began a search for existing film stories which would have acceptable school and church values. His Julius Caesar, Spartacus, Fall of Pompeii, and Silas Marner were all big productions having such values, and the schools made wide use of them.

Perhaps the most notable of his distributions is "Deliverance," picturing the remarkable life of Helen Keller, with that wonderful woman herself as the star. Besides these feature films, Mr. Kleine has secured the rights for a library of wholesome screen dramas—many of them with boys and girls in the cast—known as the Conquest Films. Mr. Kleine has invited all school distribution centers to take on these films, and sends them without guaranties or securities of any kind, except his faith in the teaching profession. At the low rental rates asked he has not made money on them, but he has paid expenses and blazed a trail that others will follow and reap the larger financial returns. Thus far the Kleine films have for the most part been more suitable for community purposes than for classroom use, and their wide use by the State institutions is an index of their tendency to attempt to cover the entertainment field in churches and schools, as well as the strictly educational and religious.

The United States Department of Agriculture was a pioneer in the attempt to popularize agricultural instruction by the use of films and slides. Eight of the twenty institutions report it as an important source of the films they distribute. Many extension workers now use these films.

The Department of the Interior, through its Bureau of Mines, has performed a similar service for the mining and metallurgical industries. Of the more than 350 sets of films being circulated by the Bureau of

Mines, about 175 sets are placed with extension departments of 26 State universities and colleges; the rest are circulated from the bureau's experiment station at Pittsburgh, Pa.

The method of producing films of the Bureau of Mines is unique, in that the entire cost of producing the pictures and making the copies is borne by the industries filmed. The only expense to the Government is the salary of an engineer who assists the industrial companies and the motion picture producer in planning and directing the making of the film, to assure it will be worthy of circulation under the Department of the Interior. Colleges, high-schools, and churches are the largest users of the bureau's films. The experience of the bureau indicates that while its films of three or four reels are in strong demand by educational institutions, there is a decided preference for the shorter films, one or two reels in length, for classroom purposes.

FILMS PRODUCED IN INSTITUTIONS.

Ten of the 20 institutions have had motion pictures taken of their campus activities—two report making pictures of their State fairs—and one (Utah) has made a bird film and pictures of the State legislature. The Philadelphia Commercial Museum has made a series on various industries. The University of Wisconsin did not report on this point, but it is well known that they employ a camera man throughout the year and have produced some notable films, prints of which have been rented or purchased by other institutions.

FILMS OF HIGHEST EDUCATIONAL VALUE.

Probably more popular interest will attach to the returns on this point than on any other. Only two or three titles were asked for. Two of the institutions did not reply to this point. The 18 which replied chose the following for supreme mention:

	Institutions.		Institutions.
1. Julius Caesar	6	17. Milk Nature's Perfect Food	2
2. Pompeii	1	18. Auto Starting and Lighting	1
3. Deliverance	1	19. Diary of a Murderer	1
4. Silas Marner	2	20. Milk as Food	1
5. Story of a Mountain Glacier	1	21. The Milky Way	1
6. Animal Studies and Magnetism	1	22. Four Seasons	1
7. The Benefactor	1	23. History of Telephone	1
8. Revelations	2	24. Priceless Gift of Health	2
9. A Woolen Yarn	1	25. The Orange Judd Films	1
10. Back of the Button	1	26. Making Telephone History	1
11. Selecting a Laying Hen	1	27. Romance of Glass	1
12. Embryology of the Egg	1	28. Story of a Stick	1
13. Exit Ascaris	1	29. Mechanics of Solids and Liquids	1
14. Out of the Shadows	1	30. Cotton [1]	1
15. Making the Desert Blossom	1	31. Rubber [1]	1
16. Come Clean	1	32. Silk [1]	1

[1] Films made and mentioned by the Philadelphia Commercial Museum as examples of an extensive series of industrials.

The first 29 titles in the list just given may be considered the Blue Ribbon List among the State institutions.

Thirteen institutions distribute slides and films "on call"; only six both "on call" and "on circuit." One did not reply on this point. Statements accompanying the returns show that only two State institutions maintain circuits as a major method of distribution, the other four using the circuit system only occasionally. It is clear that there are inherent difficulties in the attempt to supply educational institutions with material in this mechanical way. It effects some small economies in transportation costs, and the number of showings given the material, but correlations with courses of study are impossible. Where entertainment films are desired, the plan is more feasible. The theaters use it almost exclusively.

CORRELATIONS OF AIDS WITH COURSE OF STUDY.

All of the cases except one report an attempt at correlation with school courses, but all indicate that the correlation is meager, and amounts to but little. The circuit system is responsible for some of this lack; but in the main this correlation has never been made the object of serious study by the distributing center, and the local schools have been thwarted by the scarcity of material and its unorganized condition. The monograph on Visual Instruction[3] recently issued by the Berkeley schools is an important step in this direction, but this achievement should be credited under city systems, rather than State institutions. Only 10 institutions reported on the subjects in which correlation was attempted. Agriculture heads the list with 6 mentions; geography and science, each, 5; history, 3; English, 2; commercial courses, 1; and three institutions reported some correlations in all subjects.

The correlations were usually planned by the principal or teacher of the local schools; six institutions reported that their visual instruction departments assisted.

KIND OF FILMS USED.

The questionnaire asked for kinds of films used for three different purposes: (1) In the classroom instruction, (2) school assembly, (3) community assembly. It was suggested that the films be distinguished in three groups: (1) Text films, meaning those used to definitely illustrate the text in class instruction; (2) general education, when the material was fairly educational, but not used specifically for a class topic; and (3) entertainment, where that was the obvious use and purpose.

Out of 11 institutions reporting on classroom films, 4 mentioned the use of text films; the rest used general educational films.

[3] Visual Instruction (Course of Study Monographs, No. 7). The Public Schools, Berkeley, Calif. Published by the Educational Screen, Chicago.

Out of the 13 institutions reporting on kinds of films used most in the school assembly, 9 reported general educational; 1, text and general educational; 2, general educational and entertainment; and 1, industrial and entertainment.

For community purposes 14 institutions reported. Seven of them reported the use of purely entertainment films—1, general educational and entertainment; 1, text and general educational; 4, general educational; and 1, industrial and entertainment.

CUSTODY OF FILMS AND SLIDES.

Twelve institutions reported on this point. All of the 12 kept the films in one place on the campus. While the regulations require a fireproof vault, most of the institutions gave the term fireproof a wide interpretation. The slides were also kept in one place with one exception.

TYPES OF VISUAL AIDS MOST USED.

Out of the 15 reports, 8 said films were most used, 4 slides, and 2 films and slides; 1 reported other pictures and charts.

VISUAL AIDS MOST USEFUL.

Out of the 16 institutions, 3 valued films the most; 8 slides; 1 films and slides; 1 exhibits; 1 films and slides and exhibits; 1 slides, exhibits, and other pictures. The slide has a decisive majority vote for usefulness, being mentioned by 11, the film by 5, and exhibits by 2.

This judgment of the State institutions' distribution centers is significant, when the cost of films and slides, of stereopticons, and moving-picture machines is considered. The large preference for slides by the institutional distributors is no doubt influenced also by the scarcity of strictly educational films as compared with educational slides. These latter have been on the market for a half century, while the film is too new to have gotten itself differentiated for educational purposes. Of course, the larger use of films as shown in the preceding column, in spite of the disadvantage just mentioned, presages well for its future use in schools, after real educational films have appeared in larger numbers, and have been rendered more available to the schools.

A factor not mentioned in the questionnaire is the length of the films. The current 1,000-foot reel is undoubtedly a great deterrent to classroom use, as its exhibition consumes about 20 minutes, more than half the class period, and much irrelevant material must be screened to get at a few short scenes that are vital to the lesson.[4]

The slides are more flexible in this respect, and the films will have to be edited in shorter lengths if they are to play any large part in

[4] Since this was written, the De Vry Circulations, of Chicago, have prepared a catalogue of short educational films to be sold to schools, in lengths varying from 10 to 1,000 feet.

classroom instruction. The stoppage of films, and turning backwards, which is permitted by some projectors, is a step in the right direction, but does not solve the difficulty.

PROPORTION OF VISUAL AIDS DISTRIBUTED TO DIFFERENT GROUPS.

The groups mentioned in the questionnaire were schools, communities, farmers, and others, including churches.

The average service of 19 institutions to schools was 64.7 per cent of their total service; 12 institutions reporting on the point distributed 11.5 per cent of their materials to communities; only 8 institutions mentioned distribution to farmers, who received 25 per cent of their total distributions. Fifteen institutions averaged a proportionate service of 12.6 per cent to other groups, principally churches. These records of proportionate service are not very reliable, as the questionnaire did not seem to make clear the information wanted. The returns are more in the nature of estimates than actual statistics. However, the dominance of the distribution to schools is clear. Farmers come next highest in proportionate distribution, but the average, 25 per cent, is struck from only 8 of the 20 institutions. The returns indicate that while but few institutions make much of a point of serving farmer groups, those that do have found it a large share of their work; three agricultural colleges among the 8 institutions reporting a proportionate service of 40 per cent, 50 per cent, and 50 per cent, respectively. The 12.6 per cent to the churches shows the wide scope of the service.

The growing use of these visual aids by extension workers parallels the service to the farmers, and these workers are largely responsible for the large proportionate service to the farmers. It is significant that, of 16 institutions reporting on the most popular type with extension workers, 13 say the film is most popular, while 3 mention films and slides together. None mentions slides alone as being most popular. Two state frankly that the entertainment films are the favorites with the extension workers.

The preference for films over slides by extension workers is a little odd, as slide sets, with accompanying lectures furnished by the Government and such firms as the International Harvester Co., are of exceptional teaching value, and convey far more technical information than the films. Several extension workers confessed that after a hard day's work in farmers' meetings, they preferred to sit and enjoy the films with the audience, rather than deliver a lecture with the slides. The Government films and slides approach as near the modern conception of "text" or classroom film as any of the educational films, for the reason that they were made by educators and agricultural experts for specific purposes.

B. EVALUATION AND DISTRIBUTION OF VISUAL AIDS IN 14 CITIES.

TABLE 4.—EVALUATION AND DISTRIBUTION OF VISUAL AIDS IN CITIES OF 100,000 OR OVER—PART I.

City.	Expenditures for—												Courses in visual instruction.	
	Films.			Slides.			Stereographs.			Exhibits.				
	Rented.	Purchased.	Produced.	Rented.	Purchased.	Produced.	Rented.	Purchased.	Produced.	Rented.	Purchased.	Produced.	Given.	Length.
Atlanta	20 per cent.			20 per cent.	20 per cent.	10 per cent.		5 per cent.		10 per cent.	5 per cent.	10 per cent.	Yes	6–18 wks.
Berkeley							(1)	(1)			40 cases		Yes, monograph	
Buffalo					50 per cent.	50 per cent.								
Chicago													Individual instruction.	
Cleveland	1 per cent.	30 per cent.			30 per cent.			1 per cent.			33 per cent.	5 per cent.	Yes	6 wks.
Detroit	$4,000	$1,000	$800			$300		$7,000					Yes	12 wks.
Indianapolis														
Kansas City	16 per cent.	9 per cent.			25 per cent.			1 per cent.			3 per cent.		Individual	
Los Angeles	$9,193		$15,000		$2,170			$5,550					High school course	1 yr.
Newark	$4,140	$260	$225		$1,125						(2)		Being organized	
New York	40 per cent.			3 per cent.	5 per cent.	12 per cent.		(2)			(2)		Yes	1 yr.
Pittsburgh	5 per cent.				25 per cent.	1 per cent.		50 per cent.						
San Francisco	$300	$500	$400		$350								Yes	6 wks.
St. Louis		5 per cent.			5 per cent.			5 per cent.			75 per cent.	10 per cent.	Yes	6 wks.

City.	Legal troubles.	Legal requirements.	Chief sources of films.	Films produced.	Films of highest educational value.
Atlanta		Metal booths	Local exchanges	Vergil's Æneid	Industries of Our Own City.
Berkeley	Inflammable film in portables.		Univ. Calif. and Pathé Exchanges.		Toads—Making Mt. Glacier—Nanook of North—Romance of Hardwoods.
Buffalo					
Chicago	City ordinances	Booths and licensed operators.			Hats Off—Life of Lincoln—My Own U. S.—Priceless Gift of Health.
Cleveland			30 sources		Iron and Steel (Ford)—Luther Burbank (Ford).
Detroit		[4]	Michigan Film Lib.	Safety Education; Vocations.	Brer Rabbit and Pals—Apple Blossom Time in Normandy—Yellowstone Park.
Indianapolis	None	Use only noninflammable.	S. V. E.; Nat. Non-theatrical; Pathé.		
Kansas City		Requirements not enforced.			Sugar Trail—Revelations—The Human Voice—Tree to Tribune.
Los Angeles	[5]	[5]	State Univ.; Bray	School Activities	How Life Begins—Beyond the Microscope—Story of Mt. Glacier—Citizen In the Making.
Newark			Industrial firms; Ford; Pathé; S. V. E.; Carter; Cinema.	Knights of the Cross Roads; Pied Piper's Land.	Iron and Steel (Ford)—Milk as Food—Lumber (G. E.)—Chicks (Y. M. C. A.)—S. V. E. films.
New York		[6]	Argonaut and other exchanges.	Some produced for N. Y. schools.	How Life Begins—Park's Physical Geography—Wythe's Civics—Herm's Circulation
Pittsburgh		Booths and licensed operators.	U. S. Dept. Agr.; U. S. Bu. of Mines.		Story of Coal—Mexico and Its Oil—Land of Opportunity—Four Seasons.
San Francisco	[7]		Univ. Calif.; Ed. Film Corp.; Pathé.		
St. Louis	[8]	[8]	Bu. Com. Econ.; Ford.		

[1] 12,000 stereographs; 36 stereoscopes.
[2] Exhibits purchased by museum.
[3] Stereographs purchased by schools.
[4] Neither licensed operator nor booth for portables required.
[5] Usual State laws; modified for schools. Local license by Dept. Vis. Instr.; important modifications.
[6] Only narrow width film can be shown without booth and licensed operator.
[7] Use portables without restriction.
[8] Portables in fireproof box permitted after inspection by fire inspectors.

TABLE 4.—EVALUATION AND DISTRIBUTION OF VISUAL AIDS IN CITIES OF 100,000 OR OVER—PART II.

Cities.	Method of distribution.	Correlation of aids with courses.	What subjects correlated?	Who plans the correlation?	Kinds of films used in—		
					Classrooms.	School assembly.	Community assembly.
Atlanta	Circuit and call	Yes	Hist ; Lit.; science.	Supervisor vis. instruction	Specific; educational.		Gen. Ed.
Berkeley	Call	Yes, monograph.		Principals and teachers	Gen. Ed.	Gen. Ed.	Gen. Ed. and Enter.
Buffalo							
Chicago	Call	Yes	All	School faculties	Gen. Ed.	Gen. Ed.	Gen. Ed.
Cleveland	Call	Yes	All	Com. on course of study	Text, 50 per cent.	50 per cent.	
Detroit	Call and circuit	Yes	Geog.; nature study.	Teachers		Gen. Ed.	
Indianapolis	Circuit for films; others on call.	Yes	Hist.; civics; geog.	Principals and visual instruction department.	Text and Gen. Ed.		
Kansas City	Circuit and call	Yes	Geog.	Principals and teachers	Gen. Ed.	Gen. Ed.	
Los Angeles	Call	Yes	Geog.; science; citizenship.	Visual instruction department	Text	Enter.	Enter.
Newark	Circuits	Yes	All	Dept. visual instruction and schools	Text	Text and Gen. Ed.	Gen. Ed. and Enter.
New York	Circuit	Yes	All	Director visual instruction and com.	Text	Gen. Ed.	Enter.
Pittsburgh	Call	Yes	All	Principals and director of visual education.		Gen. Ed.	
San Francisco	Circuit and call	Yes	All	Department and teachers each term	Gen. Ed.	Gen. Ed.	Gen. Ed.
St. Louis	Call	Yes	All	Teachers, principals, supervisor of visual instruction.	Gen. Ed.	Gen. Ed.	Gen. Ed.

Cities.	Custody.		Visual aids most used.	Visual aids most useful.	Changes contemplated.	Points emphasized.
	Films.	Other visual aids.				
Atlanta	1 place	Scattered	Slides	Slides	Beginning to produce	Use aids *after* study of subjects.
Berkeley	At exchanges	1 place and scattered	Slides and exhibits	Films	Library of films	Films too long.
Buffalo		1 place	One million slides dis't in 3 years.			Slides in homes; loan of stereoscopes.
Chicago	Films both plans	Slides and exhibits in one place; stereoscopes scattered.	Slides; stereoscopes	Exhibits	Increased use of visual aids; more projectors and equipment.	Wider use; better technique in care of material.
Cleveland	1 place school museum.		Slides; use all		Increase film library	Films of motion needed; not stills or maps.
Detroit	1 place					
Indianapolis	1 place for films (exchanges).	Scattered	Slides, photos, etc	Stereographs	Development of department	
Kansas City	1 place			Slides	True educational films at reasonable prices.	
Los Angeles	1 place	1 place	Stereographs	Slides	Pedagogical films needed	
Newark	1 place	1 place mostly	Other pictures; exhibits.	Slides, films, stereographs.	Increased use	Get teachers to see importance and correct use of visual aids.
New York	(2)		Films, slides		More equipment; enlarge film service; better supervision; education of teachers.	Education of educators for visual instruction.
Pittsburgh	Films borrowed directly.	Slides in Bd. of Ed. office; stereoscopes in schools.	Slides, stereoscopes	Exhibits	Greater use of films	
San Francisco	1 place	1 place	Stereoscopes	Films, slides, other pictures.	Growth	Have 48 stereopticons, 10 opaque projectors, 15 mov. machines.
St. Louis	1 place	1 place	Films, stereoscopes, slides, other pictures.	Exhibits; 1,000 programs per day by 2 special delivery trucks.		

[1] Gen. Ed. = General Education. Enter. = Entertainment.
[2] Correlation sheets furnished.
[3] Films obtained from one contractor; slides and stereoscopes from State Dept. and museum.

COMMENTS ON TABLE 4.

As much of the material reported on by the cities repeats the reports of the State institutions previously given, only brief comments are necessary. These relate for the most part to differences between the two types of distribution centers. The details may best be viewed directly from the tables themselves.

With regard to the proportion of expenditures among films, slides, stereographs, and exhibits, Los Angeles led the cities, with an expenditure of $9,193 for film rentals and $15,000 for film production. New York is next, with an expenditure of $10,000 for film rentals. Detroit spends $6,000 and Newark $4,600. In the large cities where commercial exchanges abound the film budget is spent for rentals, while in the universities, as we have seen, it is spent in film purchases.

While a few cities, like those mentioned above, have spent large sums for films, all the cities reporting spent as a whole larger sums on slides and stereographs than on films. St. Louis and Cleveland spent the largest share of the visual instruction budget on exhibits, which was natural, since the departments in these cities are housed in museums. St. Louis reports 85 per cent of the budget spent for exhibits. Chicago, New York, and Newark are furnished exhibits free from city museums; so that the use of exhibits is much more extensive than expenditures from the budget indicate. The large use of rented films, stereographs, and of museum exhibits constitutes the outstanding difference between the institutional and city centers of visual instruction. The State institutions have concentrated on slides and films for state-wide distribution. Not only is it more difficult for the small towns to secure for themselves this type of materials, but they also lend themselves best to transportation by mail or express.

Of 13 cities reporting on the point, 9 give courses in visual instruction. In 7 it is a formal matter, and in 2 informal or individual. The formal courses are from six weeks to one year in length. This development of new courses has taken place to about the same degree in the State institutions. It indicates that visual instruction has entered educational circles at a high level of scholarship and technical development.

Newark, Atlanta, Detroit, New York, San Francisco, and St. Louis all report important modifications of State regulations, which permit the use of portables in the schools; and those visual instruction centers having trouble in this regard would do well to write the visual instruction heads of these cities. As pointed out under this head, in discussing State institution departments, this whole matter of trouble due to State regulations is liable to disappear in the very near future, owing to the growing practice of nontheatrical distributing agencies handling only noninflammable film.

Of the 14 cities, 11 reported on their chief sources of film. In contrast to the institutions, 9 of the 11 mention local exchanges as chief sources. Only 3 mention State universities, and only 1 the United States Government.

Six of ten have produced film, a growing practice in both cities and State institutions.

BLUE-RIBBON LIST OF FILMS FOR CITIES.

In response to the question asking for films of highest educational value, the following were mentioned:

Toads, Making of a Mountain Glacier, produced by Society of Visual Instruction.
Iron and Steel, Milk as Food, and Luther Burbank, produced by Ford.
Revelations, and The Lumber Industry, produced by General Electric.
How Life Begins.
Nanook of the North.
Hats Off.
Life of Lincoln.
Making of a Citizen (Wythe).
My Own United States.
The Priceless Gift of Health.
The Romance of the Hardwoods.
Brer Rabbit.
Apple Blossom Time in Normandy.
Yellowstone National Park.
The Sugar Trail.
The Human Voice.
From Tree to Tribune.
Beyond the Microscope.
Park's Physical Geography.
Circulation of the Blood (Herm).
The Coal Industry.
Mexico and Oil.
The Land of Opportunity.
The Four Seasons.

If this list is compared with a similar list from the State institutions, it will appear that seven of them are mentioned by both groups. Considering that the cities deal so largely with local exchanges, it is interesting to note that they include theatrical films in their lists as seldom as do the State institutions. The George Kleine films, so prominent in the institutional list, do not appear at all in the city lists. This was obviously a matter of lack of opportunity or attention, as Mr. Kleine preferred to distribute his films through the university centers. Thus many of those mentioned in both lists reflect the accidents of opportunity more than they do deliberate choice from the whole field. Fully a third of the films in the institutional list show their service to agricultural communities, while the city list mentions only one film of agricultural appeal.

The circuit system of distribution is in even less favor with the cities than with the institutions, and all cities report correlation of visual aids with courses of study. The favorite subjects for correlation seem to be geography and nature study, though half of the cities report some correlations in all subjects.

A majority of the cities use strictly textbook films in classrooms. While nine of them assemble their films in one place for distribution, four get their films from exchanges as occasion requires. New York City hires one firm to assemble its films from various agen-

cies and distribute them to the schools by trucks according to schedule. Stereographs quite generally are kept permanently at the different schools throughout the city.

In reply to the question, What visual aids are most used? there were 10 mentions of slides, 5 of stereographs, 3 of exhibits, 2 of films, and 2 of other pictures.

As to what aids are most useful, the city heads of visual instruction agree with the State institutional heads on slides. Thus slides received 5 mentions, films 3, exhibits 3, stereographs 2, and other pictures 1.

The last column of the table contains several interesting suggestions. Atlanta is convinced that visual aids should be used *after* the study of the topic. Another voices the common criticism that films are *too long* for profitable use in the classroom. Another calls attention to the fact that films should show *motion*, not stills and maps. Two state that *pedagogical* films are needed. Two urge that the chief thing needed is the *education of educators* for visual instruction.

There will probably soon be issued Freeman's Visual Education, University of Chicago Press, by a committee under the Commonwealth Fund, an elaborate study of the methods of handling films and slides in class instruction, which ought to shed some light on the points raised in this last column of the table.

SUMMARY.

On the whole the study indicates that a large group of State institutions and larger cities regard visual instruction as of sufficient importance to warrant its organization into distinct departments. These departments are now numerous enough and have operated long enough to reveal certain general tendencies and practices, from which tentative standards may be set up for the guidance of those contemplating the organization of a similar service for their schools.

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