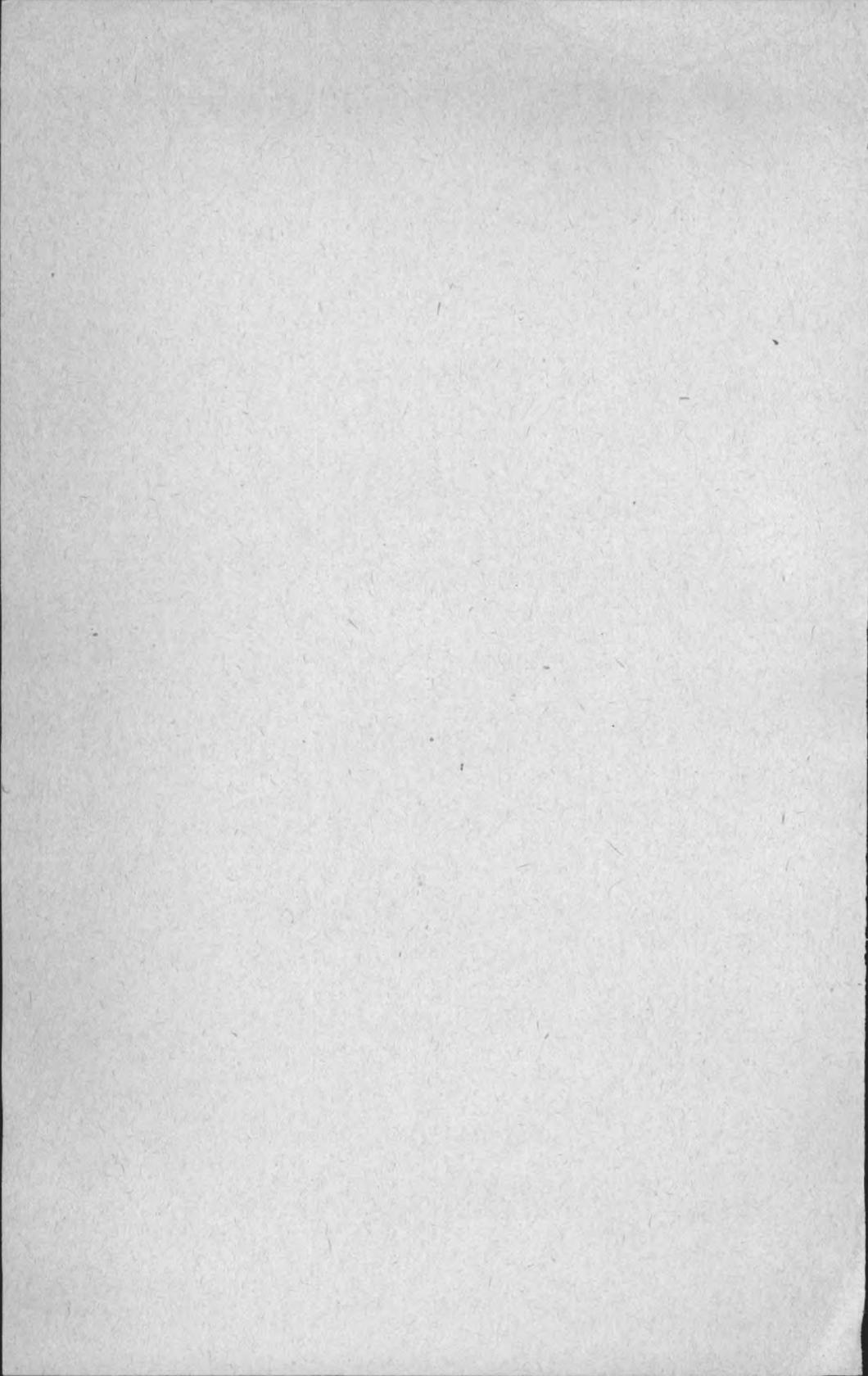


CORNELL UNIVERSITY
OFFICIAL PUBLICATION

ANNUAL REPORT OF PRESIDENT EDMUND EZRA DAY
FOR THE YEAR 1946-1947

*With Appendices containing a Summary of Financial
Operations and Reports of the Deans and other Officers*

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PRESIDENT'S REPORT

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REPORT OF THE PRESIDENT

TO THE BOARD OF TRUSTEES OF CORNELL UNIVERSITY:

I HAVE THE HONOR to present the following report for the academic year 1946-1947. Reports of the deans, the directors, and the heads of independent divisions may be found in the appendices. These describe in detail the operations of the several divisions of the University, and are commended to your attention. Summaries of changes in the Board of Trustees, and of the year's financial operations, are also included. The complete financial report of the Treasurer has been sent to you separately.

BEGINNING OF AN ERA

At the end of ten years as President of Cornell University, I am strongly tempted to look backward—to reminisce of the prewar days, when we moved in an atmosphere of relative calm though of increasing tension; of the war period, when the campus was overrun by men in uniform and the faculty was scattered over the globe; and of the recent months of violent activity to accommodate the flood of returning veterans. There has been nothing static in this picture. The decade has been a series of difficult challenges and, I am happy to think, of solid achievements.

But my purpose is to speak of the University during the past twelve months; and this year has marked the beginning, not the end of an era. The thirty-five per cent increase in enrollment is here to stay. This is not a matter of independent choice; it is a matter of public obligation.

ENLARGED RESPONSIBILITIES

The 15,000 young men and women who applied for entrance to Cornell last year and the 14,000 who applied this year represent in part a group whose opportunities for higher education were deferred by the War, but they also represent a continuously expanding demand for college training which has merely been accelerated by the GI Bill. Before the War there were approximately 1,500,000 students in American colleges; now there are more than 2,000,000; and three or four years from now there will almost certainly be more than 2,500,000. We face not a peak but the edge of a plateau.

This demand for education is based not so much on mere personal desire for the honor of a degree as on an expanding need for men and women with semi-professional or professional training and with a sufficient background of knowledge to make an intelligent approach to social and economic problems. Since colleges and universities are granted tax exemption and are committed by intent and tradition to operate in the interests of the people, they have an obligation to help meet this need. Cornell, besides being a land-grant institution drawing substantial support from both State and Federal Governments, has the special responsibility of a great endowed university—educational leadership. It is our inescapable duty to offer education to all the men and women we can accommodate without lowering our standards of instruction. This year, while meeting the immediate emergencies of housing, instructional facilities, and staff, many of us have been giving long and serious thought to the implications of this long-range obligation for the future of the University.

THE STUDENT VETERAN

Not long ago some were saying that the GI Bill, as the first great peacetime experiment by the Federal Government in removing the economic barriers to higher education, would bring into the colleges many who had no real interest in or capacity for learning. That statement is heard no longer. Certainly the experience at Cornell directly contradicts it. We have never had a more diligent, intelligent, and generally satisfactory body of students. Their academic achievement is exceeding even our optimistic expectations. Returning Cornell veterans, according to a sampling survey made by the Registrar, are averaging eight grade points higher than they did in their last term before the War. Of the 9,120 students on the Ithaca campus during the first term, only 220, or 2.5 per cent, were dropped for academic failure at midyear. The prewar percentage was 3.3.

ENROLLMENT

Enrollment during the year 1946-1947 was the largest in the history of the University, exceeding that of 1945-1946 by 2,632 students. The student body included representatives of every state in the Union and the District of Columbia, three territories, and thirty-eight foreign countries.

The changes in enrollment over the past twelve years may be seen in the following table.

TABLE A. NUMBER OF STUDENTS ENROLLED BY COLLEGES AND SCHOOLS IN THE ACADEMIC YEARS 1935-36 TO 1946-47 INCLUSIVE

	Entire University excluding duplicates	Separate Colleges and Schools													
		Arts & Sci.	Eng. Arch.	Agr.	Home I & Econ.			Hotel	Vet.	Nutr.	Bus. & Pub. Adm.		Law Med.	Nurs-ing	Grad.
					Econ.	L	R				Adm.	Law				Med.
1935-36	6019	1825	812	151	1257	441	...	209	131	...	...	162	290	...	816
1936-37	6341	1883	938	135	1358	417	...	254	151	...	...	156	299	...	935
1937-38	6684	1980	1025	129	1513	449	...	271	154	...	...	149	289	...	955
1938-39	7055	1886	1145	136	1616	479	...	291	163	...	...	186	288	...	1050
1939-40	7174	1827	1269	140	1651	479	...	326	164	...	...	207	296	...	1000
1940-41	7315	1881	1384	147	1568	492	...	326	160	...	...	191	295	...	967
1941-42	7148	1894	1580	142	1458	512	...	319	157	...	...	162	314	...	722
1942-43	6850†	1815	1689	118	1214	529	...	251	199	...	...	68	309	169	596
1943-44	4320†	1355	821	67	460	649	...	70	41	...	...	49	42	320	612
1944-45	4783†	1552	661	86	552	684	...	105	148	...	...	53	68	364	625
1945-46	7928†	2075	1556	162	1127	640	173	287	154	...	...	229	327	270	1050
1946-47	10560	2522	2667	208	1660	640	277	417	133	20	41	355	322	233	1217

†Civilian students only are included in the figures for these four years.

Partly because there have been less failures than we anticipated, and partly because the graduating class of 950 last June did not represent a normal distribution of seniors in the University, it has been necessary to increase the total enrollment in Ithaca to 9600 for this fall in order to accommodate a full freshman class. Whether or not this will remain our limit has not been finally ascertained. Studies are now under way to determine the future effects on total enrollment of the new groups in the Schools of Nutrition, Business and Public Administration, Aeronautical Engineering, and Industrial and Labor Relations, and of the five-year program in the College of Engineering.

ADMISSIONS POLICY AND THE SOCIAL NEED

I have said that Cornell must share in meeting the general problem of increasing college enrollment. But it is not enough to serve; we must serve in the most effective way we can. Much of the educational capacity will be provided by institutions supported by local communities or by the several states. Inevitably such institutions are designed primarily to meet the needs of the people of their own localities. Students from other parts of the country are admitted in small numbers, as in our own State Colleges of Agriculture and Home Economics. There remains a great and growing necessity for universities where students from every state in the Union and from foreign countries may study together, learn to know one another well, and develop, in several years of cosmopolitan companionship, a firsthand understanding of varied customs, points of view, and habits of thought. Cornell has always been such a university, and I am very happy to report that through our programs of National Scholarships and Regional McMullen Scholarships, supplementing the effective efforts of local Cornell groups, the superior students in secondary schools throughout the nation are vying

for the privilege of coming to Ithaca. We have a significant role to play in educating future leaders in thousands of communities here and abroad.

Since we can accept only a fraction of those who apply, we shall serve most effectively by offering the available opportunities to those who actually show promise of leadership. There is no easy solution to this problem of admitting new students, but we are making a conscientious effort to select the best, and in the process to give substantial preference to the sons, daughters, and near relatives of alumni.

SCHOLARSHIP AND RESEARCH

Cornell's enlarged responsibilities in the years ahead will include research as well as instruction. We have long been recognized as a great center of scientific investigation. A recent study by the National Research Council shows that in the period since 1936, Cornell has granted more Ph.D. degrees in the 38 most important scientific fields than any other institution in America. We stand first in agriculture, horticulture, and entomology, second in zoology, third in engineering, anatomy, and biochemistry, fourth in botany and genetics, fifth in physiology, sixth in physics, eighth in psychology, ninth in chemistry, and high in ten other areas.

We stand alone with respect to two new degrees which were conferred in June. Eleven students, the first class to graduate from the New York State School of Industrial and Labor Relations, were granted the degree of Bachelor of Science in Industrial and Labor Relations; and the School of Nutrition, established in 1941, awarded to one student the degree of Master of Food Science.

The total number of degrees granted in 1946-1947 was 1931, an increase of 643 over the year preceding. Full details for the separate colleges and schools for the past twelve years are given in Table B.

TABLE B. NUMBER OF DEGREES GRANTED BY COLLEGES AND SCHOOLS IN THE ACADEMIC YEARS 1935-1936 TO 1946-1947 INCLUSIVE

	Entire University	Separate Colleges and Schools												
		Arts & Sci.	Eng.	Arch.	Home I & Econ. L R			Hotel	Vet.	Nutr.	Law	Med.	Nurs- ing	Grad.
1935-36	1439	412	179	31	202	111	..	29	23	..	51	64	..	337
1936-37	1379	370	152	25	177	106	..	30	35	..	42	71	..	371
1937-38	1446	383	156	24	237	89	..	43	31	..	48	66	..	369
1938-39	1493	404	148	25	254	87	..	49	40	..	53	63	..	370
1939-40	1581	441	158	14	268	104	..	44	43	..	55	70	..	384
1940-41	1647	411	185	15	287	121	..	71	38	..	52	63	..	404
1941-42	1439	349	217	17	240	104	..	48	43	..	59	75	..	287
1942-43	1384	360	204	18	201	107	..	53	37	..	28	75	10	291
1943-44	1213	287	287	12	86	129	..	9	79	..	17	75	19	213
1944-45	1250	293	246	14	69	198	..	14	32	..	9	156	19	200
1945-46	1288	303	217	12	116	160	..	17	67	..	20	80	16	280
1946-47	1931	544	355	23	221	108	11	78	35	1	51	83	54	367

The value of scientific research to the nation became dramatically evident during the War. With several Government agencies stimulating immense continuing programs with Federal funds, every university with adequate staff and facilities will be called upon to do its share.

This opportunity, too, must be grasped. Not only will the expanding program stimulate the work of the Graduate School, but it will improve instruction at all levels. No teacher of science can be fully effective in these times of rapid scientific advances unless he is himself concerned with problems on the frontiers of knowledge.

The crucial problem for Cornell will be to keep research programs in the humanities and social sciences in balance with those in pure science. It is an ominous fact that in recent years support for such investigations has been a mere trickle in comparison with individual, industrial, and governmental grants for scientific research. This situation must sooner or later be remedied. We need a vast deal more of validated knowledge in the social fields in these times when it is so important to learn how peoples may live together in harmony throughout the world.

THE PROBLEMS OF EXPANSION

To undertake greatly enlarged programs of instruction and research and at the same time to maintain the University's high standards will be no easy task. More housing and dining facilities for students and staff must be provided; new buildings and equipment for academic and other University purposes are needed; and most important of all, it is necessary to secure and hold a faculty numbering several hundred more than we had before the War and having the very highest qualities of scholarship, scientific achievement, and teaching ability. We have made a beginning toward all these objectives, both on an emergency and on a long-range basis.

The emergency housing program outlined a year ago has been completed. Remodeled barracks and other temporary structures are concentrated at Vetsburg near the old East Ithaca station, on East Tower Road beyond the campus of the College of Agriculture, on Kline Road across Fall Creek, and near the Baker Dormitory group. During the same period, Clara Dickson Hall, a permanent brick and cut-stone dormitory adjacent to Balch Hall, has been finished and occupied by 424 women students; and the Faculty Housing Project on South Hill now provides permanent homes for 52 members of the staff and their families. Eventually the need for the present high proportion of facili-

ties for married students will disappear, but many of the temporary dormitories for men must be replaced by permanent structures. The wooden dining hall in the Baker Dormitory group must also be replaced in the not too distant future.

Last year at this time, the only usable new facilities for academic and administrative purposes were the temporary buildings on the green facing the Old Armory—the wooden buildings for the New York State School of Industrial and Labor Relations; the quonset hut for the Veterans' services; the Navy Gun Shed, left for the use of the NROTC; and the Diesel Engine Laboratory, then still owned by the Navy but since transferred to the University with engineering equipment valued at more than \$2,000,000. Several additional temporary buildings for offices, classrooms, and laboratories have been supplied during the year by the Federal Works Administration and erected on the campus with financial assistance from the State. They include two buildings for the Department of Physics behind Rockefeller Hall, two for the College of Engineering and one for the College of Home Economics on the Forest Home Road behind Martha van Rensselaer Hall, and one for the Graduate School of Aeronautical Engineering at the new airport north of the Campus.

A beginning has also been made on the permanent buildings needed by the University. The new Administration Building, finished in April, now houses all the central administrative offices of the University, including those of the Alumni Association, and has thus permitted the College of Arts and Sciences to expand into Morrill Hall and the School of Business and Public Administration to move into McGraw Hall. Savage Hall for the School of Nutrition, located just north of Bailey Hall, was nearing completion at the end of the last term and will be occupied during the fall term of the 1947-1948 academic year.

Construction was begun early this spring on two connected buildings near Savage Hall to house the research activities of the Laboratory of Nuclear Studies. Because of the outstanding staff of nuclear physicists at Cornell, the Navy Department offered to provide a synchrotron, at a cost of more than \$500,000. The University is supplying approximately \$1,100,000 to erect and equip the laboratory. This project was considered so important not only to the nation's research program but also to the University's own program of research and instruction in physics, engineering and allied fields, that ground was broken despite continuing high construction costs.

THE LONG-RANGE BUILDING PROGRAM

A number of other projects, for which funds have been appropriated by New York State or supplied by private donors, have been delayed pending the receipt of firm bids at more reasonable prices. Among the new permanent buildings for which appropriations have been made by the State are those for the Agricultural Library, the Department of Agricultural Engineering, the Department of Entomology, and the Veterinary College. Final plans are in preparation for the permanent home of the New York State School of Industrial and Labor Relations, and preliminary plans have been drawn for additions to Barton Hall for the NROTC and the expanded ROTC.

Based on the original estimates made some years ago, funds are in hand for several additions to the resources of the endowed colleges of the University. In prospect, when building costs decline or at least stabilize, are Moakley House for the Department of Physical Education and Athletics, Statler Hall for the Department of Hotel Administration and the Faculty Club, the Materials Testing Unit of the Materials and Metallurgy Laboratory, and an addition to Willard Straight Hall. A Field House for men's indoor sports is also in sight.

The long-range plan for the endowed colleges includes other structures for which the need is also urgent. Expansion of the Library must be given high priority. Three entire buildings and the bulk of the Materials and Metallurgy Laboratory for the College of Engineering are as yet unprovided for. The fine arts are in a serious plight; the facilities for CURW and the University Clinic are operating at well beyond normal capacity; and no satisfactory facilities exist for women's indoor sports.

Because Cornell is a non-profit educational institution, the opportunity has been offered during the past year to secure large quantities of equipment, suitable for long-range programs of instruction and research, from various agencies of the Federal Government. Besides the Diesel engines and allied equipment mentioned earlier, we have acquired hundreds of thousands of dollars' worth of apparatus at no cost or at a small fraction of its value. This equipment will be extremely useful in instruction and research.

THE PROBLEM OF FACULTY SALARIES

Most crucial of all is the problem of faculty salaries, both because our salary scale will determine, to a large degree, the quality of our future staff and because salaries constitute a substantial part of the

annual operating budget of the University. The budget prepared for the academic year 1946-1947 proved quite inadequate. Not only did we find it necessary to employ more new faculty members than we had anticipated, but investigations made during the year also indicated the necessity for immediate adjustments in the salary scale, particularly in the lower ranks. Hence a cash bonus was granted during the spring to all full-time members of the academic staff of the endowed colleges in Ithaca with salaries at a rate of less than \$5,000 a year. Since 1944 all State employees have received a cost-of-living bonus.

The University's budget for 1947-1948 carries items in excess of those budgeted last year totalling \$1,000,000, of which \$650,000 is for additions to the faculty and \$150,000 for increases in faculty salaries. This latter amount is woefully small, and every effort will be exerted to augment it.

THE FACULTY AND ADMINISTRATION

It speaks well for Cornell's reputation and for the congenial atmosphere maintained here for academic work that we have fared so well in holding distinguished teachers and scholars. We lost Professor Robert F. Bacher to the newly-created national Atomic Energy Commission but to replace him as director of the Laboratory of Nuclear Studies we secured from Harvard Professor Robert H. Wilson, who is recognized as one of the most brilliant of the younger scientists in this field. Dean Irving M. Ives of the School of Industrial and Labor Relations was elected to the U. S. Senate, but to fill his place we will retrieve Professor Martin P. Catherwood, who for five years has been on leave from the University as Commissioner of Commerce for the State of New York. Other men of known achievement and promise have been brought to Ithaca to fill vacancies caused by the acceptance of attractive offers from Government agencies and other universities.

Five esteemed active professors died during the year: Seymour S. Garrett, World War Professor of Industrial Economics; Charles E. O'Rourke, Structural Engineering; Paul J. Weaver, Music; H. H. M. Lyle, Clinical Surgery; and Philip A. Read, Economic Entomology.

Fifteen others retired as emeritus professors: Jessie A. Boys, Home Economics; Leroy P. Burnham, Architecture; Frank P. Bussell, Plant Breeding; George J. Heuer, Surgery; May Kennedy, Nursing; Helen Monsch, Home Economics; Eugene Pool, Clinical Surgery; Juan E. Reyna, Drawing; Howard W. Riley, Agricultural Engineering; Harold E. Ross, Dairy Industry; Lester W. Sharp, Botany; Earl Sunderville, Veterinary Anatomy; Flora M. Thurston, Home Economics; Elias

R. B. Willis, University Library, and Albert H. Wright, Zoology. Many members of the staff have, of course, been promoted in rank and given wider responsibilities.

The University suffered a grave loss during the year in the death of Trustee Albert R. Mann. As Secretary and Dean of the State College of Agriculture, Provost of the University, and Chairman of the Executive Committee of the Board of Trustees, he gave a lifetime of devoted and conspicuously able service to Cornell. Roger H. Williams, a Trustee for twenty-four years and a highly-valued member of the Finance Committee, was not a candidate for re-election. H. Edward Babcock resigned as chairman of the Board, but will serve, I am happy to report, as chairman of the Board's Executive Committee. Neal Dow Becker succeeds him as chairman. New strength will be added to the Board by the election of Matthew Carey, Ruth F. Irish, and Herbert F. Johnson.

After a year as Vice President for University Development, Dean S. C. Hollister resigned in April to devote his full time to the College of Engineering. His successor as Vice President is Robert A. Doyle of Chicago, an alumnus with long and successful experience in business and industry.

Our expanding program of contract research has led to the identification of a position in the Provost's office to maintain liaison with contractors and coordinate research throughout all divisions of the University, including the Aeronautical Laboratory in Buffalo and the Medical College in New York City. With responsibilities in this area, Richard Parmenter, C.E.'17, Ph.D.'37, and a research associate from 1934 until he entered naval service in 1940, returned in October as Administrative Assistant to the Provost in charge of Research.

Whitman Daniels of New York was appointed in April to the newly created position of Assistant to the President in charge of Public Relations.

THE FINANCIAL OUTLOOK

The generally prevailing situation of sharply mounting costs is reflected in the balance sheets of the fiscal year ended June 30, 1947. The budget of the endowed colleges in Ithaca shows a net deficit of \$166,946.69. In the Medical College in New York City, expenditures exceeded income by \$69,495.63.

The year's financial operations show unmistakable indications of the nature of the long-range problems that must be faced. Even though income on endowment funds continues at the excellent average rate

of 4.29 per cent, that income is spread more thinly over the University's greatly enlarged activities. A larger volume of research sponsored by industry and the Government will help somewhat. It would also be possible to make further increases in tuition. Such an increase, which established tuition at \$600 a year in the College of Engineering and at \$550 in the Colleges of Architecture and Arts and Sciences, The School of Business and Public Administration, and the Department of Hotel Administration, was voted by the Trustees this year and will, with the addition of 500 more students, increase the University's income in 1947-1948 by approximately \$750,000.

I feel very strongly, however, that there is a limit beyond which tuition charges should not be permitted to advance. Cornell has been strengthened since the beginning by the presence of students from all economic strata of the population. The scope and effect of Cornell's service to the youth of America will be seriously curtailed if the time ever comes when the opportunity to study here is denied to large numbers of superior students because of lack of family resources. We must all recognize that this problem cuts straight to the heart of policies which have made the University great.

The challenge of support for the long-range program is therefore directed primarily to the alumni and other friends of the University. It has been a source of continual gratification to me during the past ten years to note the increasing response from Cornellians as they have become aware of the issues involved. Individual alumni, in ever greater numbers, are making substantial additions to the resources of the University by gifts and bequests. Gifts and donations for this last year totaled \$2,811,960.87. The Alumni Fund has been invaluable and indispensable in keeping Cornell solvent and operating. Characteristically, the Fund, under the able presidency of Harold T. Edwards, set a new all-time record of \$338,902.24 in the year ending June 30—a sum substantially greater than that which was budgeted in advance. The Fund workers are doing an excellent job of presenting to all alumni the opportunity to make an investment of personal funds in an enterprise that gives an outstanding return in personal satisfaction. To them in particular I want to express my thanks and my confidence that they will triumphantly accept new challenges as they develop.

CORNELL'S CONTINUING ACHIEVEMENTS

As I review this report, it occurs to me that by placing so much stress upon the opportunities and obligations of the future I may have

given too little emphasis to the accomplishments of the past and present. To redress the balance, let me take you back to the evening of February 17, 1947, when the Trustees gave a dinner in the Grand Ballroom of the Waldorf-Astoria Hotel in New York for five Cornellians who have won the Nobel Prize. The guests of honor represented all the eras of the University's history. John R. Mott '88, honored throughout the world for his religious leadership, was a student during the early days when Andrew D. White was still the vibrant voice of a new power in American education; Dr. Isidor I. Rabi, distinguished nuclear physicist, and Pearl S. Buck, renowned author, studied here during the first quarter of the present century; and Professors James B. Sumner and Peter J. W. Debye have added lustre in recent years to the scientific reputation of the Faculty. Dr. Sumner crystallized the first enzyme in 1926 and Dr. Debye, since coming to Cornell in 1940, has continued his series of brilliant discoveries in chemistry and physics.

Also at the speakers' table were Professor Morris Bishop, author of "Pascal," "Ronsard, Prince of Poets," and other works of distinction; Professor J. G. Kirkwood, holder of the Langmuir Prize in pure chemistry; Provost Arthur S. Adams, wartime administrator of the Navy's far-flung training programs; Trustee Roger H. Williams, distinguished lawyer and banker; Dr. Bacher, who had been granted leave only a few weeks before to become the only scientist on the Atomic Energy Commission; Dr. Vincent du Vigneaud of the Cornell Medical College, who led the team of scientists that synthesized penicillin; and Dr. Hans A. Bethe, world-renowned nuclear physicist who developed the accepted theory of solar energy.

No one who heard Dr. Mott speak of the influence of President White, Miss Buck express her gratitude for the sympathetic counsel of the late Professor Martin W. Sampson, and Professor Sumner explain the role of science in creating mutual understanding among the nations of the world will harbor any doubt about the magnitude and beneficence of Cornell's achievements through the years. It is because of my pride in those achievements that I covet even greater glory for the Cornell of the future. I am confident that I echo the desire and determination of all Cornellians everywhere.

EDMUND E. DAY,
President of the University.

SUMMARY OF CHANGES IN THE BOARD OF TRUSTEES

To the President of the University:

The following changes occurred in the Board of Trustees and its committees, and in Board representation on administrative boards and councils, during the academic year 1946-1947.

BOARD MEMBERSHIP

The resignation of Chairman Howard E. Babcock was accepted by the Board with regret as of June 16, 1947. Trustee Babcock will continue to be an active member of the Board and was elected Chairman of the Executive Committee for the academic year 1947-1948.

Trustee Neal Dow Becker was unanimously elected to succeed Trustee Howard E. Babcock as Chairman of the Board for the remainder of the academic year 1946-1947 and for a three-year term beginning July 1, 1947.

The term of Trustee Roger H. Williams expired June 30, 1947. Trustee Williams has served over a period of 28 years, from June 21, 1919, and the Board complied with his request that he not be nominated for re-election. The Board expressed its regret at the loss of his association with the Board, and of his valuable contributions to its successful operation during the period he served.

The death of Trustee Albert Russell Mann on February 21, 1947, was reported with sorrow. In the death of Trustee Mann, Cornell has lost an able and loyal trustee who for many years has constantly and conscientiously served his Alma Mater. Trustee Mann was elected to the Board of Trustees in 1942 and was serving as Chairman of the Executive Committee at the time of his death.

The death of Judge Frank H. Hiscock, Chairman Emeritus of the Board, on July 2, 1946, was reported with sorrow.

The death of Charles Ezra Cornell on January 29, 1947, was reported with sorrow. He was in his forty-third year as primogenital trustee.

William Bouck Cornell succeeded his father as the primogenital trustee on the Board.

Martin P. Catherwood, Commissioner of Commerce, and *ex officio* member of the Board of Trustees of the University, was appointed Dean of the New York State School of Industrial and Labor Relations, effective July 1, 1947.

Trustee Stanton Griffis was reappointed by the Governor on September 9, 1946, for a five-year term, expiring June 30, 1951.

Horace C. Flanigan was appointed by the Governor on September 9, 1946, to fill the unexpired term (through June 30, 1947) of Edward R. Eastman, resigned. On January 13, 1947, Trustee Flanigan was reappointed by the Governor for a five-year term beginning July 1, 1947.

Francis Trow Spaulding, Commissioner of Education for the State of New York, became an *ex officio* member of the Board, succeeding George D. Stoddard, on November 1, 1946.

The term of Faculty Representative, Professor R. Clifton Gibbs, expired December 31, 1946, and he was succeeded by Professor Howard B. Adelman for a five-year term beginning January 1, 1947.

On June 16, 1947, the Cornell Alumni Association elected Ruth F. Irish and Matthew Carey as Trustees of the University for five-year terms beginning July 1, 1947, filling the vacancies caused by the expiration of the terms of Mary H. Donlon, who was elected by the Board to become a Board Trustee during her term as Alumni Trustee, and Albert R. Mann, deceased.

The New York State Grange Association re-elected Trustee Harold M. Stanley to the Board for a one-year term beginning July 1, 1947.

Herbert Fisk Johnson was elected by the Board for a five-year term beginning July 1, 1947, to succeed Trustee Roger H. Williams, resigned.

Trustees Neal Dow Becker and William D. P. Carey were re-elected by the Board for five-year terms beginning July 1, 1947.

Trustees Frank S. Columbus, Louis Hollander, and Thomas A. Murray were re-elected for one-year terms beginning July 1, 1947, as members of the Board from the field of New York State Labor.

STANDING COMMITTEES

The Trustees elected to the respective Standing Committees served for the entire academic year 1946-1947, with the following exceptions:

Executive Committee: Albert Russell Mann, Chairman, died February 21, 1947. Larry E. Gubb was appointed to an unfilled vacancy on September 9, 1946.

Investment Committee: Horace C. Flanigan was appointed to an unfilled vacancy on September 9, 1946.

Planning and Development Committee: Francis Trow Spaulding was appointed to an unfilled vacancy on September 9, 1946.

On June 16, 1947 the Board reconstituted the membership of its Standing Committees for the year beginning July 1, 1947, as follows (re-election indicated by *):

(The Chairman of the Board and the President of the University are *ex officio* members of all committees).

Executive Committee: Chairman, Howard E. Babcock; Vice Chairman, Mary H. Donlon*; and the following elective members: Francis Trow Spaulding, Maxwell M. Upson*, Thomas A. Murray*, Harold M. Stanley*, Harry G. Stutz*; and the following *ex officio* members: Chairmen of the other Standing Committees: George P. Ripley, Thomas I. S. Boak*, Larry E. Gubb, and Arthur H. Dean*.

Investment Committee: Chairman, Joseph P. Ripley*; Vice Chairman, Horace C. Flanigan*; and the following elective members: John L. Collyer*, Myron C. Taylor, Louis Hollander*, Nicholas H. Noyes*, Walter C. Teagle*, Maxwell M. Upson*, and Frank E. Gannett.

Buildings and Grounds Committee: Chairman, Thomas I. S. Boak*; Vice Chairman, Paul A. Schoellkopf*; and the following elective members: Ruth F. Irish, Frank S. Columbus*, George H. Rockwell*, George R. Pfann, and Ezra B. Whitman*.

Planning and Development Committee: Chairman, Larry E. Gubb*; Vice Chairman, Victor Emanuel*; and the following elective members: Edward E. Goodwillie, Matthew Carey, John L. Collyer, Robert E. Treman*, and Herbert Fisk Johnson.

Law Committee: Chairman, Arthur H. Dean*; Vice Chairman, William D. P. Carey*; and the following elective member: Mary H. Donlon*.

SPECIAL COMMITTEES

Changes were made in the following Special Committees of the Board:

Annuity Committee: Alice Blinn was elected to membership for her term as trustee, expiring June 30, 1949, to succeed Roger H. Williams, resigned.

Audit Committee: On January 25, 1947, George R. Pfann was elected Chairman; Edward E. Goodwillie and William D. P. Carey were elected members; all terms expiring January 1948.

Board Membership Committee: On April 26, 1947, Nicholas H. Noyes was elected to complete the unexpired term of Albert R. Mann, deceased, expiring June 30, 1949; Joseph P. Ripley was elected to complete the unexpired term of Albert R. Mann as Chairman for the remainder of the academic year 1946-1947. Larry E. Gubb was elected an alternate for Stanton Griffis on this committee due to the appointment of Stanton Griffis as U. S. Ambassador to Poland. Larry E. Gubb will serve as an alternate for the remainder of the term of Stanton Griffis, expiring June 30, 1950. Robert E. Treman was elected to fill out a term of five years, expiring June 30, 1950. On June 16, 1947, Robert E. Treman was elected as Chairman for a term of one year beginning July 1, 1947.

ADMINISTRATIVE BOARDS

The following appointments of Trustees to the Administrative Boards of the University were made on June 16, 1947:

Board on Physical Education and Athletics: Victor L. Butterfield to succeed Edward E. Goodwillie, and George R. Pfann to succeed himself for the year beginning July 1, 1947.

Board on Student Health and Hygiene: Alice Blinn to succeed herself and William B. Cornell and Van C. Whittemore to succeed Willis H. Carrier and Harry G. Stutz for the year beginning July 1, 1947.

Board of Governors of Willard Straight Hall: Due to the resignation of Martin P. Catherwood, June 16, 1947, there is an unfilled vacancy.

COLLEGE COUNCILS

The following appointments of Trustees to the College Councils of the University were made on June 16, 1947:

College of Architecture Council: Thomas I. S. Boak was elected to succeed himself and Victor L. Butterfield was elected to succeed Albert R. Mann, deceased, for the year beginning July 1, 1947.

Medical College Council: Neal Dow Becker, Stanton Griffis, Alice Blinn, and Horace C. Flanigan were elected members of this council for a four-year term, three-year term, two-year term, and one-year term, respectively, beginning July 1, 1947.

Council for the Cornell University-New York Hospital School of Nursing: Edmund E. Day and Neal Dow Becker were elected members to succeed themselves for a three-year term beginning July 1, 1947.

Council for the New York State College of Agriculture and Agricultural Experiment Stations: Howard E. Babcock was elected to succeed himself on the council on September 9, 1946, for a one-year term ending June 30, 1947. Trustee Babcock was re-elected to succeed himself for a one-year term beginning July 1, 1947. There remains an unfilled vacancy for the year beginning July 1, 1947.

Council for the New York State College of Home Economics: Ruth F. Irish was elected to succeed Mary H. Donlon and Harry G. Stutz was elected to succeed himself for a one-year term beginning July 1, 1947.

Council for the New York State Veterinary College: Van C. Whittemore was elected to succeed Joe R. Hanley and Robert E. Treman was elected to succeed himself for a one-year term beginning July 1, 1947.

Council for the New York State School of Industrial and Labor Relations: It was resolved that the Commissioners of Commerce and Education and the Industrial Commissioner be *ex officio* members of this council, and also that the term of membership on this council for others be one year. All of the following Trustees were elected to succeed themselves for a one-year term beginning July 1, 1947: Howard E. Babcock, John L. Collyer, Frank S. Columbus, Mary H. Donlon, Louis Hollander, Thomas A. Murray, and Walter C. Teagle.

DISSOLUTION OF UNIVERSITY WAR COUNCIL

The University War Council, constituted by the Board of Trustees on May 25, 1942, was dissolved as of January 25, 1947; the President of the University and Chairman of the Board of Trustees were members of this council.

ROBERT B. MEIGS,
Secretary of the Board of Trustees.

SUMMARY OF FINANCIAL OPERATIONS

To the President of Cornell University:

For the fiscal year ended June 30, 1947, the over-all cost of running the University in all its divisions exceeded its income by \$150,122.81.

The Endowed Colleges at Ithaca, which include the College of Arts and Sciences, the College of Engineering, the Law School, the School of Business and Public Administration, and the Graduate School, are self supporting; and in addition they subsidize to a varying degree, a number of other common departments and activities, as well as carry substantially all of the costs of the general administration of the entire University.

The financial condition of the Endowed Colleges at Ithaca is therefore of primary importance in the operation of the University, and while the balance sheet is a consolidated one, it is preponderately composed of the assets of the endowed colleges, with the inclusion of cash items held for the account of our other colleges and departments for which the Endowed Colleges at Ithaca act in the capacity of a banker.

In respect to the operating costs for the fiscal year of the Endowed Colleges at Ithaca, expenditures exceeded income by \$305,954.29. Against this was applied a balance of \$139,007.60 in the General Reserve, leaving a net deficit to be covered next year of \$166,946.69.

In the Medical College in New York City, expenditures exceeded income by \$69,495.63. This was charged against previously accumulated reserves standing to the credit of that college.

On the income producing invested funds, which at June 30 totalled \$42,313,171.85, the surplus of market values above book values was \$1,878,229.57. The average rate earned on endowments was 4.29%. The income stabilization reserve was increased to \$199,395.74, and the reserve for possible capital losses increased to \$1,528,399.53.

The State Colleges as a group lived within their income.

Gifts and donations for the year totalled \$2,811,960.87. Of the gifts received, \$679,340.32 were added to endowment funds. The Alumni Fund again produced a new high in the total of unrestricted gifts for current account, \$338,902.24, for which the Trustees and Administration of the University are deeply grateful to the members of the Alumni Fund Council, to its Chairman, Mr. Harold Edwards, to the host of workers in the field, and to its staff in Ithaca.

GEORGE F. ROGALSKY,
Treasurer.

APPENDIX I

REPORT OF THE REGISTRAR

To the President of the University:

SIR: I have the honor to submit herewith the annual report of the Registrar. It covers the academic year 1946-1947, including the Summer Sessions of 1946 and, for convenience, work between the end of the Spring Term 1946 and July 1, 1946, but excluding work between the end of the Spring Term 1947 and July 1, 1947.

TABLE I

TERMS OF INSTRUCTION FOR THE YEAR 1946-1947

	<i>Days in Session*</i>
AT ITHACA:	
Summer Session I, 6 weeks.....	July 1-Aug. 9..... 31 †
Summer Session II, 5 weeks.....	Aug. 12-Sept. 14..... 30
Summer Session, Law.....	July 1-Sept. 14..... 66
Summer Session, Architecture.....	July 1-Sept. 14..... 66
Fall Term.....	Oct. 11-Feb. 12..... 94
Thanksgiving Day, a holiday.....	Nov. 28..... (subtracted)
Christmas Recess.....	Dec. 22-Jan. 5..... (subtracted)
Midyear Recess.....	Feb. 13..... (subtracted)
Spring Term.....	Feb. 14-June 10..... 93
Spring Recess.....	April 6-13..... (subtracted)
Spring Day, a holiday.....	May 24..... (subtracted)
AT NEW YORK CITY:	
<i>Medical College</i>	
Fall Term.....	Sept. 24-Dec. 17..... 69
Columbus Day, a holiday.....	Oct. 12..... (subtracted)
Thanksgiving Recess.....	Nov. 28-30..... (subtracted)
Christmas Recess.....	Dec. 18-Jan. 1..... (subtracted)
Winter Term.....	Jan. 2-March 26..... 71
Washington's Birthday, a holiday.....	Feb. 22..... (subtracted)
Spring Term.....	March 31-June 19..... 69
Memorial Day, a holiday.....	May 30..... (subtracted)
<i>School of Nursing</i>	
Third Term.....	May 13-Sept. 28, 1946..... 117 (Decoration, Independence, and Labor Day subtracted)
First Term.....	Sept. 30-Jan. 18..... 92 (Columbus, Thanksgiving, Christmas, and New Year's Day subtracted)
Second Term.....	Jan. 20-May 10..... 94 (Lincoln's and Washington's Birthdays subtracted)
Third Term.....	May 12-Sept. 27, 1947..... 117 (Decoration, Independence, and Labor Day subtracted)

*Sundays excluded throughout.

†Saturdays also excluded, excepting Saturday July 6.

The calendar for the divisions at Ithaca represents a partial return to the schedule known as "normal" before the War. In December 1945 the University Faculty had voted to return to a conventional two-semester calendar, with registration beginning September 24 and final examinations ending June 10, and with the traditional

prewar recess at Christmas and another about the middle of the Spring Term. By the early summer of 1946, however, the fact became evident that the new housing under construction to accommodate the large increase of enrollment expected in the fall would not be entirely ready for occupancy by the date set for registration. Consequently, the opening of the Fall Term was postponed more than two weeks until October 11, and the days in session were performed curtailed by about a week each term. No one, whether among the students, the faculty, or the administration has been heard to mourn the passing of the War Calendar of three sixteen-week terms every twelve months. It should be noted, however, that the general University Summer Sessions and the specialized Summer Sessions in Law and Architecture still gave the opportunity for "acceleration" to those students (especially veterans) who wanted it.

TABLE II

ATTENDANCE FOR THE YEAR 1946-1947

The cross totals for the year in Ithaca include (a) "double registrants" (i.e., students registered in two divisions of the University at the same time) and (b) students registered in one division for the Fall Term and in another for the Spring Term. The grand totals exclude all duplicate registrations.

IN ITHACA:

College	Fall Term			Spring Term			Total for Year		
	M	W	T	M	W	T	M	W	T
Agriculture.....	1265	203	1468	1267	193	1460	1437	223	1660
Architecture.....	166	34	200	154	32	186	171	37	208
Arts and Sciences..	1479	868	2347	1469	805	2274	1623	899	2522
Business and Public Administration..	40	1	41	37	1	38	40	1	41
Engineering.....	2376	31	2407	2501	30	2331	2633	34	2667
Graduate School..	851	200	1051	892	201	1093	984	233	1217
Home Economics..	0	624	624	0	585	585	0	640	640
Hotel.....	347	31	378	334	27	361	385	32	417
Industrial & Labor Relations.....	207	42	249	217	38	255	233	44	277
Law.....	321	24	345	287	20	307	329	26	355
Nutrition.....	7	4	11	16	3	19	16	4	20
Veterinary Medi- cine.....	119	9	128	113	9	122	122	11	133
Total registrations.	7178	2071	9249	7087	1944	9031	7973	2184	10157
Less double regis- trants.....	7143	2065	9208	7052	1940	8992	7932	2178	10110
Total enrolled (less all other duplicates).....							7841	2164	10005

IN NEW YORK CITY:

	First Term		Second Term		Third Term				
	M	W	M	W	M	W			
Medical College...	284	38	284	38	203	32	284	38	322
School of Nursing	....	233	....	202	....	199	....	233	233
	284	271	284	240	203	231	284	271	555
Grand Totals (Excluding duplicates).....							8,125	2,435	10,560

PRESIDENT'S REPORT

TABLE III

GEOGRAPHIC DISTRIBUTION OF STUDENTS IN ITHACA

For the academic year 1946-1947 students enrolled at Ithaca represented every state in the Union and the District of Columbia, three territories, and thirty-eight foreign countries.

<i>States</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Alabama.....	13	5	18
Arizona.....	8	2	10
Arkansas.....	8	0	8
California.....	52	14	66
Colorado.....	9	2	11
Connecticut.....	161	51	212
Delaware.....	13	4	17
Florida.....	49	11	60
Georgia.....	20	5	25
Idaho.....	5	0	5
Illinois.....	153	24	177
Indiana.....	32	6	38
Iowa.....	17	2	19
Kansas.....	11	1	12
Kentucky.....	18	7	25
Louisiana.....	14	2	16
Maine.....	25	8	33
Maryland.....	101	15	116
Massachusetts.....	208	65	273
Michigan.....	65	14	79
Minnesota.....	27	5	32
Mississippi.....	6	0	6
Missouri.....	43	5	48
Montana.....	6	1	7
Nebraska.....	16	2	18
Nevada.....	1	0	1
New Hampshire.....	21	7	28
New Jersey.....	613	137	750
New Mexico.....	5	2	7
New York.....	4,797	1,480	6,277
North Carolina.....	18	2	20
North Dakota.....	4	2	6
Ohio.....	217	42	259
Oklahoma.....	10	1	11
Oregon.....	12	2	14
Pennsylvania.....	474	116	590
Rhode Island.....	31	3	34
South Carolina.....	5	1	6
South Dakota.....	9	1	10
Tennessee.....	20	4	24
Texas.....	25	9	34
Utah.....	24	3	27
Vermont.....	23	12	35
Virginia.....	45	9	54
Washington.....	13	4	17
West Virginia.....	21	2	23
Wisconsin.....	38	4	42
Wyoming.....	1	0	1
District of Columbia.....	64	18	82
TOTAL.....	7,571	2,112	9,683

REGISTRAR'S REPORT

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<i>U. S. Territories</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Hawaii.....	9	4	13
Puerto Rico.....	16	0	16
Panama Canal Zone.....	3	0	3
TOTAL.....	28	4	32
<i>Foreign Countries</i>			
Afghanistan.....	1	0	1
Argentina.....	6	0	6
Belgium.....	0	1	1
Bermuda.....	3	0	3
Brazil.....	4	1	5
Canada.....	67	14	81
China.....	33	11	44
Colombia.....	7	0	7
Costa-Rica.....	3	0	3
Cuba.....	4	3	7
Dominican Republic.....	1	0	1
Egypt.....	5	0	5
England.....	2	1	3
Ecuador.....	7	1	8
Fiji.....	2	0	2
France.....	1	2	3
Greece.....	6	0	6
Haiti.....	1	0	1
Holland.....	1	1	2
Iceland.....	2	0	2
India.....	41	5	46
Iran.....	0	1	1
Italy.....	1	0	1
Jamaica, B.W.I.....	2	0	2
Mexico.....	11	0	11
Netherlands, W. Indies.....	0	1	1
Norway.....	8	2	10
Nova Scotia.....	1	2	3
Palestine.....	3	0	3
Panama, Republic of.....	0	1	1
Peru.....	1	0	1
Philippine Islands.....	3	0	3
South Africa.....	1	1	2
Sweden.....	1	0	1
Switzerland.....	2	0	2
Syria.....	1	0	1
Turkey.....	5	0	5
Venezuela.....	5	0	5
TOTAL.....	242	48	290
GRAND TOTAL.....	7,841	2,164	10,005

PRESIDENT'S REPORT

TABLE IV
ATTENDANCE AT SUMMER SESSIONS, ETC. 1946

	<i>Men</i>	<i>Women</i>	<i>Total</i>
6-week Summer Session.....	1,355	662	2,017
Graduate Students.....	509	78	587
5-week Summer Session.....	196	5	201
Graduate Students.....	28	2	30
Unit Courses.....	171	79	250
	<hr/>	<hr/>	<hr/>
	2,259	826	3,085
Distribution of Duplicates:			
Graduate School—Summer Sessions.....	293	54	347
6-week—5-week Summer Sessions.....	192	5	197
	<hr/>	<hr/>	<hr/>
	485	59	544
Total, excluding duplicates.....	1,774	767	2,541
Law Summer Session.....	197	8	205
Architecture Summer Session.....	45	2	47
Off-Campus, Summer Session.....	16	..	16
Resident Doctors, Summer Session.....	4	..	4
Extramural Courses.....	127	23	150

TABLE V
MATRICULANTS

	<i>Men</i>	<i>Women</i>	<i>Total</i>
First Year (undergraduates).....	1,317	346	1,663
Advanced Standing (undergraduates beyond First Year)	249	44	293
Graduate Students (not including Summer Session)....	295	94	389
Graduate Students (Summer Session)*.....	74	58	132
Business & Public Administration.....	11	0	11
Law (not including Summer Session).....	74	5	79
Law (Summer Session).....	45	1	46
Medicine.....	76	9	85
Nursing.....	..	36	36
Nutrition.....	7	2	9
Veterinary Medicine.....	20	1	21
Special Students (excepting 2-yr. Agr.).....	50	41	91
Special 2-yr. Agriculture.....	135	5	140
	<hr/>	<hr/>	<hr/>
	2,353	642	2,995

*Here are counted students matriculating during the Summer Session in the Graduate School of Cornell University. Graduate students from other institutions, though registering for the first time at Cornell in the Summer Session, are not counted as Cornell matriculants.

TABLE VI
INTRAMURAL TRANSFERS

The unprecedented demands for entrance and the necessity for fixed allotments of enrollment for each division of the University combined to create unusual difficulties for undergraduates wishing to transfer from one college (or school) to another within the University. In order to facilitate such transfers and to assure the maximum possible opportunities for them the several undergraduate colleges agreed that the Registrar's Office should receive all applications for intramural transfer, transmit the students' records along with the applications to the appropriate committees, notify each college of the students wishing to come in and of the students wishing to go out, and act as a kind of "clearing house" for the several

committees on admissions. The following table shows the applications for transfer to and the acceptances by each of the several undergraduate colleges.

	<i>For the Fall Term</i>		<i>For the Spring Term</i>	
	<i>Accepted</i>	<i>Applicants</i>	<i>Accepted</i>	<i>Applicants</i>
Architecture.....	8	out of 24	3	out of 4
Arts and Sciences.....	35	" " 281	17	" " 104
Chem. Engr.....	3	" " 3	2	" " 3
Civil Engr.....	19	" " 28	20	" " 20
Electrical Engr.....	17	" " 50	14	" " 21
Mech. Engr.....	20	" " 47	30	" " 36
Engr. Physics.....		" " .	6	" " 6
Hotel Admin.....	3	" " 34	1	" " 20
Agriculture.....	6	" " 31	5	" " 10
Home Econ.....	1	" " 3	0	" " 2
Industrial and Labor Relations.....	8	" " 26	1	" " 2
	120	" " 527	99	" " 228
	(23%)		(43%)	

It was possible for the several committees to accept for the Spring Term a much higher proportion (43%) of the applicants for intramural transfer than for the Fall Term (only 23%).

TABLE VII

VETERANS' SCHOLASTIC PERFORMANCE

The high proportion of veterans in the student population (73% of the men enrolled were veterans) led to a good deal of wild speculation about their academic performance. Fantastic rumors got to circulating among students, townspeople, and alumni. To offset these rumors by a look at the facts, the Associate Registrar, Ernest Whitworth, undertook a preliminary study of the grades of veterans carrying undergraduate work at Cornell. His findings were as follows:

(1) Returning veterans resumed their studies at Cornell after a leave of absence from the University, on the average, of three and one-half years. Their scholastic performance before they left the University to join the armed services earned an average grade of 71.5; their improved performance for the first term after their return was marked by an average of 78. In the period of their first attendance at the University their grades were 3.2 *lower* than the all-men's average for the three pre-war years 1938-1941; in their first term after returning, their grades were 3.3 *higher* than that all-men's average. This improvement after return from service was noticeable in all schools and colleges of the University without exception.

(2) Of all returning veterans 34% had been in academic difficulty ("Dropped," "On probation," or "Warned") as a result of their last complete term's work before leaving the University for the services. Of these, 76% had been officially restored to "good standing" by the end of their first term after returning and had improved their average from a prewar 64.0 to a postwar 75.3.

(3) The veterans who had not previously been at Cornell but were completing their first term of work here attained a group average of 76.0, which is higher by 1.3 than the prewar all-men's average.

At the close of the Fall Term (February 1947) a count was made of the students dropped for failure to do satisfactory work. A comparison was made with a similar period in a "normal" prewar year (February 1938). The percentage of enrollment dropped in February 1947 was 2.5%, slightly less than the percentage dropped in February 1938, 3.3%. In my opinion this reduction in academic casualties is due (a) to the mature and serious work done by veterans and (b) to the high selection necessarily exercised in the admission of non-veterans. Of the men dropped in February 1947, 73% were veterans. By remarkable coincidence this is exactly in proportion to the number of veterans in the total male enrollment, of which they constituted 73%.

PRESIDENT'S REPORT

TABLE VIII

DEGREES

October 1946; February 1947; June 1947

	<i>Men</i>	<i>Women</i>	<i>Total</i>
A.B.	331	213	544
B.S. (a)*	184	37	221
B.S. (b)*	...	108	108
B.S. (c)*	66	12	78
B.Arch.	14	7	21
B.Fine Arts	...	2	2
B.C.E.	55	...	55
B.Chem.E.	43	...	43
B.E.E.	23	2	25
B.M.E.	75	3	78
B.S. in A.E.	24	...	24
B.S. in C.E.	28	...	28
B.S. in E.E.	30	...	30
B.S. in I&LR	9	2	11
B.S. in M.E.	72	...	72
B.S. in Nursing	...	54	54
D.V.M.	31	4	35
A.M.	27	24	51
M.C.E.	10	...	10
M.Chem.E.	3	...	3
M.E.E.	1	...	1
M. Fine Arts	...	1	1
M. Food Science	1	...	1
M.M.E.	5	...	5
M. Regional Planning (under Arch.)	3	...	3
M.S.	60	42	102
M.S. in Agriculture	28	...	28
M.S. in Education	35	11	46
M.S. in Engineering	18	1	19
M.S. in I&LR	1	...	1
Ph.D.	76	19	95
LL.B.	44	7	51
LL.M.	1	...	1
J.S.D.	1	...	1
M.D.	77	6	83
Total	1,376	555	1,931

*(a) means Agriculture; (b), Home Economics; (c) Hotel Administration.

REGISTRAR'S REPORT

TABLE IX

TABLE SHOWING BY YEARS THE NUMBER AND KINDS OF DEGREES GRANTED BY CORNELL UNIVERSITY

DEGREES	DEGREES						Total
	Before 1943	1943	1944	1945	1946	1947	
Architects	1						1
Bachelors of Arts	12,616	360	287	293	303	544	14,403
Bachelors of Agriculture	30						30
Bachelors of Architecture	771	18	12	12	11	21	845
Bachelors of Chemistry	823						823
Bachelors of Chemical Engineering	1	27	40	35	3	43	129
Bachelors of Civil Engineering	221	28	22	13	20	55	360
Bachelors of Electrical Engineering	40	15	31	24	29	25	164
Bachelors of Fine Arts	36			2	1	2	41
Bachelors of Landscape Architecture	82						82
Bachelors of Law	2,528	28	17	9	20	51	2,563
Bachelors of Letters	264						264
Bachelors of Literature	52						52
Bachelors of Mechanical Engineering	162	47	54	50	26	78	417
Bachelors of Philosophy	484						484
Bachelors of Science	3,712						3,712
Bachelors of Science (College of Agriculture)	3,280	201	86	69	116	221	3,973
Bachelors of Science (College of Home Economics)	1,542	107	129	198	160	108	2,244
Bachelors of Science (Hotel Administration)	580	53	9	14	17	78	751
Bachelors of Science in Admin. Engineering	443	67	37	16	11	24	598
Bachelors of Science in Agriculture	357						357
Bachelors of Science in Architecture	123						123
Bachelors of Science in Chemical Engineering	9	6	32	25	3		66
Bachelors of Science in Chemistry	9						9
Bachelors of Science in Civil Engineering		4	11	17	28	28	88
Bachelors of Science in Electrical Engineering		1	14	21	29	30	95
Bachelors of Science in Indust. & Labor Relations						11	11
Bachelors of Science in Mechanical Engineering		5	46	65	67	72	255
Bachelors of Science in Natural History	4						4
Bachelors of Science in Nursing		10	19	19	16	54	118
Bachelors of the Science of Agriculture	127						127
Bachelors of Veterinary Science	4						4
Chemical Engineers	91						91
Civil Engineers	3,063	3			1		3,067
Electrical Engineers	813						813
Forest Engineers	17						17
Graduates in Pharmacy	1						1
Mechanical Engineers	6,282						6,282
Pharmaceutical Chemists	2						2
Masters in Architecture	46						46
Masters in Forestry	86						86
Masters of Arts	2,021	42	33	36	50	51	2,233
Masters of Arts in Education	84						84
Masters of Chemical Engineering	4	3	1			3	11
Masters of Chemistry	23						23
Masters of Civil Engineering	302	3	2	2	6	10	325
Masters of Education		1	2		1		4
Masters of Electrical Engineering	54	1			2	1	58
Masters of Fine Arts	8				1	1	10
Masters of Food Science						1	1
Masters of Landscape Architecture	8						8
Masters of Landscape Design	21						21
Masters of Law	65	1			3	1	70
Masters of Letters	9						9
Masters of Mechanical Engineering	278	2	2	3	4	5	294
Masters of Regional Planning		1	1	1	1	3	7
Masters of Philosophy	10						10
Masters of Science	1,407	65	41	53	70	102	1,738
Masters of Science in Agriculture	464	6	10	3	19	28	530
Masters of Science in Architecture	19						19
Masters of Science in Education	230	30	14	8	22	46	350
Masters of Science in Engineering	108	5	12	13	24	19	181
Masters of Science in Indust. and Labor Relations					1	1	2
Masters of Veterinary Medicine	1						1
Doctors of Law (Honorary)	2						2
Doctors of Medicine	2,347	75	75	156*	80	83	2,816
Doctors of Philosophy	3,063	131	95	81	76	95	3,541
Doctors of Science	20						20
Doctors of the Science of Law	8					1	9
Doctors of Veterinary Medicine	1,176	37	79	32	67	35	1,426
Total Degrees	50,425	1,384	1,213	1,250*	1,288	1,931	57,491

*Including 79 degrees in Medicine reported after Table VI for 1944-1945 was made up.

PRESIDENT'S REPORT

TABLE X

TABLE SHOWING THE NUMBER OF STUDENTS IN EACH COURSE IN THE PAST FIVE YEARS

	1942-43	1943-44	1944-45	1945-46	1946-47
Agriculture.....	1,214	460	552	1,127	1,660
Architecture.....	118	67	86	162	208
Arts and Sciences.....	1,815	1,355	1,552	2,075	2,522
Business and Public Administration.....	.....	.....	.....	.....	41
Engineering.....	1,689	821	661	1,556	2,667
Graduates.....	596	612	625	1,050	1,217
Home Economics.....	529	649	684	640	640
Hotel Administration.....	251	70	105	287	417
Industrial and Labor Relations.....	.....	.....	.....	173	277
Law.....	68	49	53	229	355
Medicine.....	309	42	68	327	322
Nursing School.....	169	320	364	270	233
Nutrition.....	.....	.....	.....	.....	20
Veterinary.....	199	41	148	154	133
Total, excluding Duplicates.....	6,850	4,320	4,783	7,928	10,560
Architecture—Summer Term.....	51	.....	.....	.....	47
Arts—Summer Term.....	7	.....	.....	.....	.....
Curtiss-Wright Course.....	115	104	.....	.....	.....
Eleven-Week Summer Term.....	540	.....	.....	.....	.....
Engineering, Science, and Management War Training Program.....	9,096	6,171	2,999	.....	.....
Engineering—Summer Term.....	414	.....	.....	.....	.....
Extramural Courses.....	19	65	49	218	150
First Five-Week Summer Session.....	426	.....	.....	.....	.....
Summer Session—Law.....	118	.....	.....	.....	205
Graduate Work in Summer.....	283	138	159	197	617
Graduate—Summer Term.....	26	.....	.....	.....	.....
Russian—June 15—July 25.....	13	.....	.....	.....	.....
Russian—June 15—Sept. 12.....	15	.....	.....	.....	.....
Second Five-Week Summer Session.....	212	.....	.....	.....	.....
Summer Session.....	994	460	868	1,093	2,541
Unit Courses.....	119	.....	.....	138	250
Veterinary—Summer Term.....	157	.....	.....	.....	.....
Student Officers—Diesel Engineering.....	.....	570	677	48	.....
Steam Engineering.....	.....	264	300	26	.....

TABLE XI

AGE AT GRADUATION

The following table shows in years and months the age at graduation. For the age at graduation, taken at ten-year periods from 1870 to 1900, and at five-year periods from 1900 to 1930, see the Report of the Registrar, 1933-1934. See subsequent Reports for the age at five-year periods since 1930.

	Class of 1940			Class of 1945		
	Minimum	Median	Maximum	Minimum	Median	Maximum
Agriculture						
Men.....	20-1	22-9	40-3	20-1	22-10	29-10
Women.....	19-10	21-8	31-2	20-0	21-10	40-4
Architecture						
Men.....	21-6	24-4	28-1	19-6	21-7	30-9
Women.....	21-4	23-5	24-9	19-11	22-6	23-9
Arts						
Men.....	19-2	21-10	33-3	18-11	21-	35-8
Women.....	19-11	21-6	36-3	19-1	21-	37-1
Engineering						
Men.....	20-2	22-5	48-9	19-	20-10	31-3
Women.....	25-8	25-8	25-8	20-4	20-11	21-5
Home Economics						
Men.....	20-	22-11	27-2	20-9	22-	22-5
Women.....	19-7	22-	37-	19-	21-	26-2
Veterinary						
Men.....	20-6	24-	29-6	21-2	22-6	28-11
Women.....	21-7	22-6	25-1	24-9	24-9	24-9
Masters						
Men.....	21-1	27-9	55-10	19-11	27-1	66-2
Women.....	21-6	27-7	50-6	20-5	26-10	63-3
Doctors of Philosophy						
Men.....	23-2	29-6	49-5	22-7	29-5	56-11
Women.....	24-9	34-11	45-8	28-8	38-	45-9
Law						
Men.....	21-11	24-4	29-2	23-2	24-7	26-2
Women.....	24-	25-2	26-7	21-5	23-4	30-8
Medicine						
Men.....	22-11	25-10	30-1	22-9	24-7	31-10
Women.....	24-3	26-3	33-5	23-1	24-10	26-10
Nursing						
Women.....	.....	.....	.....	20-6	22-11	31-2

PRESIDENT'S REPORT

TABLE XII

THE ISSUE OF TRANSCRIPTS

The following is reported only as evidence of the increase of business for the Registrar's Office since the beginning of the war. Only photostatic transcripts of student and alumni records have been counted; numerous miscellaneous photostats made for students and for various offices in the University are not included.

	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47
July.....	358	1,191	1,056	1,670	1,224	3,227
August.....	500	1,178	1,308	1,602	2,251	2,963
September.....	483	1,041	802	1,213	1,440	2,298
October.....	430	1,111	554	1,031	1,589	1,397
November.....	325	610	1,105	754	1,972	1,595
December.....	290	602	1,144	499	2,148	1,690
January.....	1,000	747	862	466	2,606	1,808
February.....	867	2,219	877	563	1,641	1,201
March.....	1,073	2,145	2,292	788	2,358	2,221
April.....	781	1,210	964	1,365	2,873	794
May.....	789	913	575	687	2,576	1,138
June.....	1,079	2,497	702	664	2,130	764
Total.....	7,975	15,464	12,241	11,302	24,808	21,096

CONCLUSION

A bright and important day in the history of the Registrar's Office was the April day when we moved from the cramped quarters in Morrill Hall to the modern made-to-order facilities in the new Administration Building. The greatly improved conditions for the workers in the office and for the public whom they serve were at once manifest.

In the course of the moving I found in our ancient vault in Morrill Hall a copy of the first report of my predecessor, the late David Hoy, rendered exactly fifty years ago to President Schurman. Some comparisons between then and now are of interest.

	1896-97	1946-47
Total Enrollment.....	1,808	10,560
Women Students.....	13%	23%
Entering from Private Schools.....	23%	15%
Enrolled from New York State....	62%	62%
Degrees Awarded.....	431	1,931

Of the freshmen entering fifty years ago only 34% were under the age of 19; of the freshmen entering in 1940 (the most recent year on which similar data are available) 92% were under 19.

E. F. BRADFORD,
Registrar.

APPENDIX II

REPORT OF THE DEAN OF THE UNIVERSITY FACULTY

To the President of the University:

SIR: I have the honor to present the report of the University Faculty for 1946-1947.

There were included in the Faculty membership during part or all of the year 1,023 persons whose rank and place of service are shown in the following table. Under the heading, "Administration," are listed only those officers who do not have academic titles in addition to their administrative designations.

	<i>Professors Emeritus</i>	<i>Professors</i>	<i>Assoc. Professors</i>	<i>Asst. Professors</i>	<i>Adminis- tration</i>	<i>Total</i>
<i>Residence</i>						
Ithaca.....	69	344	187	207	12	819
Geneva.....	3	21	1	30	..	55
New York City.....	16	44	20	54	..	134
Elsewhere.....	10	1	..	4	..	15
Total.....	98	410	208	295	12	1,023

Eleven members of the Faculty died during the year: Benjamin Freeman Kingsbury, Professor of Histology and Embryology, Emeritus, on July 8, 1946; William Strunk, jr., Professor of English, Emeritus, on September 26, 1946; J. C. Torrey, Professor of Epidemiology, Emeritus, on October 7, 1946; I. S. Haynes, Professor of Clinical Surgery, Emeritus, on October 9, 1946; Paul John Weaver, Professor of Music, on October 14, 1946; Olaf Brauner, Professor of Fine Arts, Emeritus, on January 3, 1947; Charles E. O'Rourke, Professor of Structural Engineering, on January 10, 1947; Seymour S. Garrett, Professor of Administrative Engineering, on February 12, 1947; H. H. M. Lyle, Professor of Clinical Surgery, on March 11, 1947; William Nichols Barnard, Professor of Mechanical Engineering, Emeritus, on April 4, 1947; and Philip Adna Readio, Professor of Economic Entomology, on May 28, 1947.

Fifteen members of the Faculty retired from their official position during the year and were elected emeritus professors: Jessie Austen Boys, Associate Professor of Home Economics, (June 30, 1947); LeRoy P. Burnham, Professor of Architecture, (June 30, 1947); Frank Pores Bussell, Professor of Plant Breeding, (October 30, 1946); George Julius Heuer, Professor of Surgery, (June 30, 1947); May Kennedy, Professor of Nursing, (June 30, 1947); Helen Monsch, Professor of Home Economics, (June 30, 1947); Eugene Pool, Professor of Clinical Surgery, (June 30, 1947); Juan Estevan Reyna, Associate Professor of Drawing, (June 30, 1947); Howard Wait Riley, Professor of Agricultural Engineering, (June 30, 1947); Harold Ellis Ross, Professor of Dairy Industry, (October 30, 1946); Lester Whyland Sharp, Professor of Botany, (June 30, 1947); Earl Sunderville, Professor of Veterinary Anatomy, (June 30, 1947); Flora Martha Thurston, Professor of Home Economics, (June 30, 1947); Elias Root Beadle Willis, Associate Librarian, (June 30, 1947); Albert Hazen Wright, Professor of Zoology, (June 30, 1947).

During the year forty-two members left the ranks of the Faculty either by resignation or because of termination of the contract period. Forty-four members were on sabbatic leave during the year and eight were on special leaves.

APPOINTMENTS AND ELECTIONS

Dr. H. B. Wightman was appointed Chairman of the Committee on Student Conduct; Professor Glenn Salisbury, Chairman of the Committee on Student Activities; Professor H. B. Adelmann, Chairman of the Committee on Music; Professor C. P. Nettels, Chairman of the Committee on the Moses Coit Tyler Prize;

and Professor P. W. Gates, Chairman of the reorganized Committee on Scholastic and Aptitude Testing. During the first semester, Professor J. L. Hoard served as Chairman of the Committee on Scheduling of Public Events and during the second, Professor W. M. Sale.

At the October meeting of the Faculty, Professor F. A. Southard, jr. was elected Secretary of the Faculty to replace Professor R. P. Sibley who had resigned after twenty years of service in that office. At the annual election in November, Professor H. B. Adelman was chosen Faculty Representative on the Board of Trustees for a five-year term; Professor F. A. Southard, jr., a member of the Committee on University Policy for a five-year term; Professor Bristow Adams, a member of the Board on Physical Education and Athletics for a three-year term; and Professor I. C. Gunsalus, a member of the Board on Student Health and Hygiene for a three-year term.

During the year the following temporary appointments were made by the President to membership in the Committee on University Policy: Professor M. G. Bishop, until December 31, 1947 to fill the vacancy caused by the resignation of Professor Mary F. Henry; Professor G. J. Thompson, during the leave of absence of Professor C. O. Mackey.

TENURE AND EFFICIENCY

In 1942 the Faculty voted to postpone further consideration of the report of the Committee on Tenure and Efficiency until after the University should resume its normal peacetime functioning. At the time this action was taken, the Faculty had made recommendations regarding tenure to the Board of Trustees based upon part of the report of the Committee. The Board deferred action on these recommendations until after the war.

At its October 1946 meeting, the Faculty voted to resume the consideration of the report. It authorized the reorganization of the Committee on Tenure and Efficiency and asked the Committee to review the entire report, taking into consideration such Faculty and Trustee actions as had been taken since the report had been written and the many changes which had occurred on the campus in the interim. As a result of several reports made by the Committee in the course of the year, the Faculty has organized a special committee to make a study of methods for the evaluation of the quality of teaching and to recommend methods for its improvement; it has again transmitted to the Board of Trustees recommendations regarding tenure similar to those of 1942 but somewhat modified as to detail; and it now has under consideration recommendations of the Committee on Tenure and Efficiency which concern the administration of sabbatic leaves.

THE UNIVERSITY TESTING SERVICE

Recently, there have developed on the campus several agencies concerned with scholastic testing. In addition to the University Faculty Committee on Scholastic and Aptitude Testing and departments which conduct objective examinations, there are the Veterans Advise ment and Guidance Center and the Bureau of Educational Research and Service of the School of Education. The two last-named agencies provide service for organizations outside as well as inside the University. The Faculty has recommended that these various services be coordinated so as to make more generally available to members of the Faculty facilities for testing students and technical assistance in the matter of course examinations. Acting on this recommendation, the Board of Trustees has established a University Testing Service which is an adjunct of the University Faculty. Professor A. D. Woodruff, who is the Director of the Bureau of Educational Research and Service, has been appointed Director of the University Testing Service, and the Faculty has authorized him to administer the facilities of the Service in cooperation with those of the Bureau in such a way as to bring about their close coordination.

The Faculty has reorganized its Committee on Scholastic and Aptitude Testing, providing that it shall have a rotating membership generally representative of the Faculty. Competence in the field of testing is no longer to be a criterion for membership on this Committee which will study the operation of the new Service

in order to keep the Faculty informed regarding the opportunities which it affords and to propose such changes as seem desirable.

The Faculty has also provided for a Board of Consultants, appointed by the Director, which will provide technical advice on various aspects of testing and will conduct research needed for the improvement of the Testing Services.

MILITARY AND NAVAL SCIENCE

During the last decade, the Department of Military Science and Tactics has increased the amount of time spent by freshmen and sophomores in the classroom and decreased the length of the drill period. The University Faculty recognized this tendency in 1942 when it voted to assign one hour credit a term to the underclass courses in Military Science. The inauguration on the campus this year of the Naval R.O.T.C. work brought about a re-examination of the question of credits for these courses. The Faculty has voted to assign three credit hours a term for the N.R.O.T.C. courses which consist of three classroom periods and one drill period a week; three credit hours a term for the upperclassmen R.O.T.C. courses, A1, A2, A3, A4; and two credit hours a term for the underclassman R.O.T.C. courses, E1, E2, E3, E4. Students who satisfactorily complete one term of work in the Military Band will thereby satisfy one term of the Military Science requirement, but unless they take simultaneously the two hours of classroom work of the underclass R.O.T.C. courses, they will receive no credit hours on the books of the Registrar. Students, who are registered in the N.R.O.T.C., are not required simultaneously to take courses in Military Science. Such students, when they have successfully completed four terms of N.R.O.T.C. work, will have satisfied the University requirement in Military Science. In thus assigning credits on the books of the Registrar for work done in the classroom in the Departments of Military Science and Naval Science, the University Faculty is not legislating on the matter of the use of these credits as the partial fulfillment of the requirement for any degree. The specification of the requirement for a degree is within the jurisdiction of the faculty of the college which administers that degree.

EMPLOYMENT OF GERMAN SCIENTISTS

The possibility that German scientists, who had served the Nazi regime in Germany, might shortly be available for academic positions in the United States has been a matter of concern to some members of the Faculty. This resulted in a discussion of the subject on the floor of the Faculty and the reference of the matter to the Committee on University Policy. As a result of the investigation made by the Committee, the Faculty formally endorsed a statement made by the President of the University to the effect that he is opposed to the employment by the University of any scholars or scientists of foreign origin whose opinions exhibit sympathy for Fascist or Nazi ideals. The Faculty further recommended to the President of the University that prior to the employment of persons formerly engaged in war work in enemy countries a thorough investigation of their background be made independent of similar investigations made by the government.

COST-OF-LIVING BONUS

At its December meeting, the University Faculty called the attention of the Board of Trustees to the fact that for several years the members of the Faculty in the state colleges of the University had been the recipients of a cost-of-living bonus and requested a similar bonus for the members of the faculties in the endowed colleges. As a result of this request, the Board of Trustees voted a lump-sum bonus to the full-time members of the faculties of the endowed colleges in Ithaca whose annual salary was less than \$5000 a year.

FACULTY LEGISLATION

During the year, the Faculty has reorganized its Committee on the Scheduling of Public Events in such a way as to make that Committee more widely representa-

tive of the various agencies on the campus which are interested in such events. It has rewritten the rules regarding students on probation so as to make the statement of the rules conform more closely to present practice. It has also modified the method of filling vacancies occurring in committees and boards to which members are elected by the Faculty. These changes were made in order to increase the efficiency of conduct of the business of the Faculty. Such amendments to our methods of procedure are made almost every year, and it is increasingly difficult to ascertain the correct statement of a rule currently in effect. In view of this, the Faculty has authorized a codification of the Faculty legislation to be carried out by the Committee on University Policy, acting through a subcommittee to be appointed for the purpose. As this work proceeds, it is expected that much of the legislation, which has been passed by the Faculty, will be reworded and the new form brought to the Faculty for its authorization.

THE STANDING COMMITTEES

The Committee on University Lectures has sponsored seventeen single lectures on the Goldwin Smith, Schiff, and Woodford Foundations and a series of six Messenger lectures delivered by Sumner H. Slichter, Lamont University Professor, Harvard University, on the topic, "The Problem of Industrial Relations." Three series of six lectures each and one, of three lectures, have been arranged on the Messenger Foundation for 1947-1948.

The Committee on Music sponsored three series of concerts. One of these consisted of four concerts by soloists, Marian Anderson, contralto; Sylvia Marlowe, harpsichordist; Georges Enesco, violinist; and Muriel Kerr, pianist. Another consisted of three orchestra concerts by the Baltimore Symphony Orchestra, the Minneapolis Symphony Orchestra, and the Rochester Philharmonic Orchestra respectively. The third series consisted of four chamber music concerts by the Walden String Quartet. All the available seats for these series were sold early in the year. To accommodate those who wished to attend but could not, the Committee sponsored a duplicate series of concerts by the Walden String Quartet and an additional concert by the Rochester Philharmonic Orchestra.

The Committee on Student Conduct has given consideration to several serious cases. Two students were suspended from the University; another was suspended for a definite period; and the degree of another, a senior, was withheld for one semester. Four students were placed on parole because, in each case, the Committee found reason to hope that the influence of a parole officer would be of lasting benefit to the student. In its actions this year the Committee has not regarded parole as a penalty. The case of a student on parole is regarded as a case still before the Committee. Final action may be taken at any time although it is usually taken upon the recommendation of the parole officer. The cooperation between this Committee and the Judiciary Committee of the Women's Self-Government Association continues to be satisfactory. In the two cases, which were referred to the Conduct Committee by the Judiciary Committee, the recommendations of the Judiciary Committee were approved.

Considerable progress has been made by the Committee on Student Activities, acting in cooperation with the Student Council in the matter of giving recognition to new student organizations. The system of asking each student organization to select a Faculty adviser is working well. Several difficult problems have been satisfactorily solved with the aid of these advisers.

CARLETON C. MURDOCK,
Dean of the University Faculty.

APPENDIX III

REPORT OF THE DEAN OF THE GRADUATE SCHOOL

To the President of the University:

SIR: I have the honor to present the report of the Graduate School for the academic year 1946-1947.

I

The total number of students registered during the academic year was 1,258, as compared with 1,014 registered in 1945-1946; despite this increase, however, only approximately one-third of those applying were admitted, and many of those rejected were well qualified for admission. Registration in the Summer Session more than doubled, and registration under Personal Direction was greatly increased; but the over-all increase in summer registrations in 1946 was slightly less than double that of 1945, because of the second term registrations in 1945. Applications from foreign students continue to be far in excess of our ability to receive them.

There were notable increases in three general fields of concentration: in Group B (History, Philosophy, and Government), 155 as against 80 last year; in Group C (Physical Sciences), 253 as against 162 last year; and in Group E (Engineering and Architecture), 165 as against 88 last year. Registration in the other fields remained approximately the same as last year with the exception of Group D (Biological Sciences), in which the number fell from 230 to 150.

The number of applications for fellowships and scholarships increased from 250 to 331, and the number of awards increased from 40 to 98. It is hoped that the number and the quality of applications during the next year will warrant awards more nearly approximating the number of fellowships and scholarships available.

II

During the year the Faculty recommended, and the Trustees approved, the establishment of two new degrees, Master of Engineering Physics and Doctor of Education, to be administered by the Faculty of the Graduate School under the special supervision of the Division of Engineering and the School of Education respectively. Both of these are professional degrees, the former designed to offer advanced training for students who have completed the undergraduate curriculum in Engineering Physics and the latter to meet the needs of principals and superintendents who desire professional training beyond the Master's level but of a somewhat broader and more flexible type than is contemplated by candidacy for the degree of Doctor of Philosophy. The requirements for the Ed. D. degree are essentially the same as those for the Ph.D. degree, except that there is no fixed requirements of a foreign language for the former and the thesis need not be of the traditional research type.

Registration for each of these new degrees is now in process, and it is evident that there is a genuine demand for each. I venture to express the hope, however, that with these degrees we have reached the end of the multiplication of new degrees. It would seem that 22 Master's degrees (17 under the jurisdiction of the Graduate School and 5 under other jurisdictions) and 3 Doctor's degrees ought to be sufficient to meet all needs for advanced training at Cornell University; if not, what is apparently called for is a searching examination of the fundamentals of our curriculum and of the legitimacy of any proposed new needs for such training.

The Faculty approved the English language as a 'foreign' language in satisfaction of the language requirement for the Ph.D. degree by students whose native tongue is other than English. Both a speaking and a reading knowledge of the language is required of those presenting it, however, and the second language must be other than the candidate's native tongue. This legislation has the double advantage of avoiding the increasing pressure on the part of foreign students to present their native tongue in fulfilment of the language requirement and guaranteeing that such students have at their command a workable knowledge of English.

The Faculty also approved a new method of electing members of the General Committee. Henceforth, election is to be by mail ballot on nominations submitted by a nominating committee chosen by the Dean from the General Committee, the nominations to be made after a nominating ballot is had from the faculty for the vacancy to be filled. It is hoped that this method of election to membership in the General Committee will secure a representative participation in the general election on the part of members of the faculty.

III

New members of the General Committee were elected as follows:

- (a) Professor G. W. Salisbury to succeed Professor H. B. Adelman as member at large.
- (b) Professor L. S. Cottrell, Jr., to succeed Professor J. M. Sherman as member at large.
- (c) Professor F. A. Southard, Jr., to succeed Professor F. A. Harper as representative of Group B.
- (d) Professor L. P. Smith to succeed Professor T. R. Briggs as representative of Group C.
- (e) Professor B. F. Willcox to succeed Professor H. D. Laube as representative of Group H.
- (f) Professor J. W. McConnell to succeed Professor Phillips Bradley as representative of Group J.

The untimely death of Professor P. A. Readio leaves Group D without representation until an election can be held in the autumn.

The Committee is now composed of the following members, with periods of service as indicated:

- Professor Carl Stephenson, at large, 1948.
- Professor C. M. McCay, at large, 1949.
- Professor L. S. Cottrell, Jr., at large, 1950.
- Professor G. W. Salisbury, at large, 1950.
- Professor James Hutton, Group A, 1948.
- Professor F. A. Southard, Jr., Group B, 1950.
- Professor L. P. Smith, Group C, 1950
- Professor _____, Group D, 1949
- Professor E. M. Strong, Group E, 1948.
- Professor C. V. Morrill, Group F, 1949.
- Professor H. C. Thompson, Group G, 1949.
- Professor B. F. Willcox, Group H, 1950.
- Professor P. J. Kruse, Group I, 1948
- Professor J. W. McConnell, Group J, 1949.
- Professor O. F. Curtis, Secretary, *ex officio*.
- The Dean, Chairman, *ex officio*.

Once again, I wish to express my appreciation of the loyal and efficient cooperation of the members of the Committee, who give unstintingly of their time and talent to the work of the Graduate School and serve the cause gladly.

IV

The usual statistical summaries are appended.

G. WATTS CUNNINGHAM,
Dean of the Graduate School.

TABLE I

STATISTICS OF ATTENDANCE OF GRADUATE STUDENTS
A. TOTAL ENROLLMENT

	1946-47	1945-46	1944-45	1943-44	1942-43
Number of students registered during the academic year.....	1,258	1,014	544	543	595
Number of students registered during the summer, as below.....	816	490	425	458	523
Summer Session.....	489	231	143	134	284
Personal Direction.....	277	18	53	101	182
Candidate for Degree Only.....	50	25	25	37	57
Summer Term.....	...	216	204	186	...

B. COMPARATIVE ENROLLMENT OF GRADUATE STUDENTS FOR FIVE-YEAR PERIODS

1916-17	1921-22	1926-27	1931-32	1936-37	1941-42	1946-47
468	614	685	1,139	936	839	1,258

C. NEW GRADUATE STUDENTS

	During Academic Year 1946-47	Summer 1946
Ph.D. degrees.....	132	20
A.M. and M.S. degrees.....	262	73
Professional Master's degrees.....	119	47
Resident Doctors.....	0	0
Non-candidates.....	14	5
Withdrawals after registration.....	10	5
Total.....	537	150

PRESIDENT'S REPORT

TABLE II

GRADUATE STUDENTS RECEIVING DEGREES CLASSIFIED ACCORDING TO THE DEGREE RECEIVED

	1946-47	1945-46	1944-45	1943-44	1942-43
Master's Degrees					
Masters of Arts.....	51	50	36	33	42
Masters of Arts in Education.....	0	0	0	0	0
Masters of Science.....	88	70	53	41	65
Masters of Science in Agriculture.....	28	19	3	10	6
Masters of Education.....	0	1	0	2	1
Masters of Science in Education.....	46	22	8	14	30
Masters of Regional Planning.....	3	1	0	1	1
Masters of Science in Engineering.....	19	24	13	12	5
Masters of Forestry.....	0	0	0	0	0
Masters of Laws.....	1	3	0	0	1
Masters of Chemistry.....	0	0	0	0	0
Masters of Architecture.....	0	0	11	0	0
Masters of Fine Arts.....	1	1	0	0	0
Masters of Landscape Architecture.....	0	0	0	0	0
Masters of Chemical Engineering.....	3	0	0	1	2
Masters of Civil Engineering.....	10	6	2	2	3
Masters of Electrical Engineering.....	2	2	0	0	1
Masters of Mechanical Engineering.....	5	4	3	2	2
Masters of Science in Industrial and Labor Relations.....	1	1	0	0	0
Total Master's Degrees.....	258	204	119	118	159
Doctors of Philosophy.....	94	75	82	95	131
Doctors of the Science of Law.....	1	0	0	0	0
Total.....	353	279	201	213	290

TABLE III

GRADUATE STUDENTS CLASSIFIED ACCORDING TO THE DEGREES FOR WHICH THEY ARE CANDIDATES

	<i>Academic Year 1946-47</i>	<i>Summer 1946</i>
Doctors of Philosophy.....	583	295
Doctors of the Science of Law.....	0	1
Master's Degrees, as below		
Masters of Arts.....	123	116
Masters of Arts in Education.....	0	0
Masters of Science.....	235	162
Masters of Science in Agriculture.....	83	31
Masters of Science in Education.....	64	114
Masters of Science in Engineering.....	29	17
Masters of Forestry.....	0	0
Masters of Laws.....	1	0
Masters of Chemistry.....	0	0
Masters of Architecture.....	1	0
Masters of Fine Arts.....	3	0
Masters of Landscape Architecture.....	0	0
Masters of Chemical Engineering.....	19	3
Masters of Civil Engineering.....	22	13
Masters of Electrical Engineering.....	20	1
Masters of Mechanical Engineering.....	18	1
Masters of Education.....	0	0
Masters of Regional Planning.....	10	3
Masters of Science in Industrial and Labor Relations...	12	2
Non-candidates, as below		
Resident Doctors.....	6	4
Non-candidates.....	23	12
Others (withdrawals, duplicates, etc.).....	6	41
Total.....	1,258	816

TABLE IV

GRADUATE STUDENTS CLASSIFIED ACCORDING TO THE GROUP IN WHICH THE MAJOR SUBJECT FALLS

	<i>1946-47</i>	<i>1945-46</i>	<i>1944-45</i>	<i>1943-44</i>	<i>1942-43</i>
Group A, Languages and Literatures.....	97	85	55	45	63
Group B, History, Philosophy, and Political Science.....	155	80	71	79	90
Group C, Physical Sciences.....	253	162	89	124	121
Group D, Biological Sciences.....	150	230	87	80	125
Group E, Engineering, Architecture....	165	88	57	58	52
Group F, Science Departments, New York City.....	18	13	13	14	16
Group G, Agricultural Sciences.....	184	187	106	94	89
Group H, Law.....	1	4	2	0	0
Group I, Education.....	158	150	60	42	43
Group J, Industrial and Labor Relations..	17	..	..	..	..
Home Economics.....	54	..	..	..	..
Others (Resident Doctors).....	6	15	4	7	6

TABLE V

INSTITUTIONS FROM WHICH GRADUATE STUDENTS RECEIVED THEIR FIRST DEGREES

Acadia University.....	2	Colby College.....	1
Akron, University of.....	2	Colgate University.....	2
Alabama Agricultural & Mechanical Normal College.....	2	Colorado College.....	1
Alabama Polytechnic Institute.....	1	Colorado State College of Agr. & Mechanics.....	3
Alabama, University of.....	1	Colorado State Teachers College.....	1
Alberta, University of.....	5	Colorado, University of.....	1
Albion College.....	1	Columbia University.....	10
Alfred University.....	3	Connecticut State College.....	3
Algier's University.....	1	Connecticut, University of.....	6
Allahabad, University of.....	1	Cooper Union.....	1
Allegheny College.....	3	Cornell College.....	1
Amherst College.....	1	Cornell University.....	257
Amsterdam University.....	1	Dacca, University of, India.....	2
Ankara, Institute of Agriculture (Turkey).....	1	Dartmouth College.....	5
Antioch College.....	2	Delaware, University of.....	1
Arizona, University of.....	4	De Pauw University.....	1
Arkansas, University of.....	1	Duke University.....	2
Asbury College.....	1	Edinburgh University.....	2
Athens Agriculture College.....	1	Elizabethtown College.....	1
Athens, University of.....	1	Elmira College.....	1
Augustana College.....	1	Emory College.....	3
Baldwin Wallace College.....	2	Emporia College.....	1
Barnard College.....	1	Escola Superior de Agricultura de Lauras.....	1
Bates College.....	2	Escola Superior de Agricultura de Vicosa.....	1
Beirut, University of.....	2	Escuela de Ingenieros.....	1
Beloit College.....	1	Escuela Nacional de Agricultura.....	3
Benares Hindu University.....	3	Evansville College.....	1
Bethany College.....	2	Federal Technical Institute.....	1
Birmingham-Southern College.....	1	Fitchburg State Teachers College.....	1
Bombay, University of.....	5	Florida State College.....	1
Boston University.....	1	Florida, University of.....	4
Bowdoin College.....	2	Fouad University (Egypt).....	1
Bridgewater College.....	1	Franklin and Marshall College.....	5
Brigham Young University.....	3	Geneva, University of.....	1
British Columbia, University of.....	3	Georgia State College for Women.....	1
Brooklyn College.....	14	Georgia State Teachers College.....	2
Brown University.....	2	Georgia, University of.....	5
Bryn Mawr College.....	1	Gettysburg College.....	1
Bucknell University.....	4	Glenville State Teachers College.....	1
Buenos Aires, de Universidad.....	1	Ginling College.....	1
Buffalo, University of.....	9	Goucher College.....	3
Cairo, University of.....	2	Granbery, University of.....	1
Calcutta, University of.....	2	Greenville College.....	1
California Institute of Technology.....	1	Grinnell College.....	1
California, University of.....	13	Grove City College.....	2
Canisius College.....	1	Hamburg, University of.....	1
Carleton College.....	2	Hamilton College.....	6
Carnegie Institute of Technology.....	4	Hampden-Sidney College.....	3
Case School of Applied Science.....	2	Hang-Chow College.....	1
Catholic University.....	1	Hartwick College.....	3
Chicago, University of.....	9	Harvard University.....	9
Cincinnati, University of.....	2	Hastings College.....	1
Clark University.....	2	Haverford College.....	2
Clarkson College of Technology.....	2	Hawaii, University of.....	2
Clemson Agricultural College.....	4		

Heidelberg College.....	1	Mount Holyoke College.....	5
Hiram College.....	1	Mount St. Vincent College.....	1
Hobart College.....	10	Mount Union College.....	1
Hofstra College.....	3	Muhlenberg College.....	2
Hope College.....	2	Mundelin College.....	1
Houghton College.....	2	Muskingum College.....	1
Hunter College.....	9	Nagpur University.....	1
Idaho, University of.....	1	Nanking, University of.....	1
Illinois Institute of Technology.....	1	National Central Univ. of Chung-king.....	4
Illinois, University of.....	16	National Chekiang University.....	1
Imperial College.....	1	National Chiao-hung University.....	1
Indiana State Teachers College.....	2	National Chiao-Tung University.....	6
Indiana University.....	4	National Fuh-Tan University.....	1
Iowa State College.....	9	National School of Agriculture, Mexico.....	1
Iowa, University of.....	2	National Szechuan University.....	1
Johns Hopkins University.....	1	National Tsing-Hua University.....	2
Kansas State College of Agr. & Applied Science.....	3	National Tung-Chi University.....	1
Kansas City, University of.....	2	National Wu-Han University.....	2
Kansas, University of.....	2	Nebraska Wesleyan University.....	1
Kentucky, University of.....	6	Nebraska, University of.....	6
Kirksville Teachers College.....	1	New Hampshire, University of.....	4
Ladycliff College.....	1	New Jersey State Teachers College at Montclair.....	2
LaFayette College.....	2	New Mexico, University of.....	1
Laval University.....	2	New York State College of Forestry.....	2
Lebanon Valley College.....	3	New York, College of the City of.....	13
Lehigh University.....	2	New York State College for Teachers at Albany.....	17
Liege, University of.....	1	New York State College for Teachers at Buffalo.....	11
London, University of.....	2	New York State College for Teachers at Cortland.....	1
Long Island University.....	2	New York University.....	8
Louisiana Polytechnic Institute.....	1	North Carolina State College.....	1
Louisiana State University.....	5	North Carolina, University of.....	1
Lucknow University.....	1	North Dakota State College.....	3
McGill University.....	14	North Dakota, University of.....	1
Madison College.....	1	North Texas State Teachers College.....	1
Madras University.....	7	Northeast Missouri State Teachers College.....	1
Maine, University of.....	6	Northeastern University.....	2
Manhattan College.....	2	Northwestern University.....	1
Manitoba, University of.....	2	Notre Dame College.....	1
Marquette University.....	1	Notre Dame, University of.....	1
Maryland University of.....	9	Oberlin College.....	11
Massachusetts Inst. of Technology.....	5	Ohio State University.....	4
Massachusetts State College.....	11	Ohio University.....	3
Massachusetts State Teachers College at Framingham.....	2	Oklahoma Agriculture & Mechanical College.....	5
Memphis State College.....	1	Olivet College.....	1
Miami University.....	1	Ononta State Teachers College.....	2
Michigan State College.....	5	Ontario Agricultural College.....	8
Michigan State Normal College.....	1	Oregon State College.....	3
Michigan, University of.....	8	Oregon, University of.....	1
Middlebury College.....	3	Oswego State Teachers College.....	4
Mills College.....	1	Our Lady of the Elms College.....	1
Milton College.....	2	Paris Institut National Agronomique.....	1
Minnesota, University of.....	14	Paris, University of.....	1
Mississippi State College.....	1	Peking, University of.....	2
Missouri Central State Teachers Col.....	1		
Missouri, University of.....	4		
Monmouth College.....	1		
Montana State College.....	4		
Montreal University.....	2		
Mount Allison University.....	1		

Pennsylvania State College.....	15	Southern California, University of..	1
Pennsylvania State Teachers College at East Stroudsburg.....	1	Southern Methodist University....	2
Pennsylvania State Teachers College at Lockhaven.....	2	Southwestern University.....	1
Pennsylvania State Teachers College at Mansfield.....	5	Stanford University.....	1
Pennsylvania State Teachers College at Millersburg.....	1	Stetson University.....	1
Pennsylvania State Teachers College at Slippy Rock.....	4	Stevens Institute.....	1
Pennsylvania State Teachers College at Westchester.....	1	Stout Institute.....	1
Pennsylvania, University of.....	3	Superior School of Agriculture and Vet. Medicine.....	1
Philadelphia College of Pharmacy and Science.....	2	Swarthmore College.....	4
Philippines, University of.....	3	Switzerland Federal Technical In- stitute.....	1
Pine Bluff Agriculture, Mechanical, and Normal College.....	1	Syracuse University.....	8
Pittsburgh, University of.....	6	Temple University.....	1
Polytechnic Institute of Brooklyn...	3	Tennessee, University of.....	3
Pomona College.....	1	Texas Agricultural and Mechanical College.....	6
Prairie View State Normal.....	1	Texas Christian University.....	1
Pratt Institute.....	4	Texas, University of.....	1
Princeton University.....	5	Toronto, University of.....	15
Principia College.....	1	Toulouse University, France.....	1
Puerto Rico, University of.....	5	Travancore, University of.....	1
Punjab University.....	11	Tübingen, University of.....	1
Purdue University.....	6	Tulane University.....	7
Queens College.....	5	Tuskegee Institute.....	3
Queens University.....	7	Union College.....	6
Radcliffe College.....	3	United States Military Academy... 13	
Reed College.....	2	United States Naval Academy.....	7
Rensselaer Polytechnic Institute...	4	Universidad Central, Ecuador.....	1
Rhode Island State College.....	3	Universidad Central de Venezuela	1
Rice Institute.....	3	Utah State Agricultural College... 19	
Richmond, University of.....	2	Utah, University of.....	1
Roanoke College.....	1	Vanderbilt University.....	1
Roberts College (Turkey).....	2	Van Stellenbasch, University of (S. Africa).....	1
Rochester, University of.....	7	Vassar College.....	4
Rollins College.....	2	Vermont, University of.....	6
Rosary College.....	1	Virginia Military Institute.....	1
Royal Institute, Stockholm.....	1	Virginia Polytechnical Institute... 7	
Rutgers University.....	9	Virginia State Teachers College... 2	
St. Benedict's College.....	1	Virginia State Teachers College at Radford.....	1
St. Bernard's Seminary.....	1	Virginia, University of.....	3
St. Bonaventure College.....	4	Wabash College.....	2
St. John's University.....	1	Wake Forest College.....	1
St. Lawrence University.....	5	Washington & Jefferson University	2
St. Louis University.....	1	Washington and Lee University... 1	
San Diego State College.....	1	Washington State College.....	4
Saskatchewan, University of.....	6	Washington, University of.....	6
Seton Hall College.....	2	Wayne University.....	1
Seton Hill College.....	2	Wells College.....	1
Sewanee, University of.....	1	Wesleyan Conservatory.....	1
Smith College.....	2	West China Union University... 1	
South Dakota State College of Agr. and Mechanical Arts.....	1	West Virginia University.....	6
South Illinois State Teachers College	1	Western Kentucky State Teachers College.....	1
Southeast Missouri State Teachers College.....	1	Western Ontario, University of... 2	
		Western Reserve University.....	3
		Westminster College.....	1
		Wheaton College.....	1
		Wiley College.....	2

Willamette College.....	1	Wooster College.....	5
William & Mary College.....	1	Worcester Polytechnic Institute.....	2
William Smith College.....	2	Wyoming University of.....	1
Williams College.....	2	Yale University.....	7
Wilson College.....	1	Yen Ching University.....	1
Wisconsin, University of.....	10	Yeshiva University.....	1
Women's Zion College.....	1	German degrees not certified.....	1

GEOGRAPHICAL DISTRIBUTION OF GRADUATE STUDENTS

Alabama.....	7	Utah.....	18
Arizona.....	5	Vermont.....	7
Arkansas.....	3	Virginia.....	20
California.....	23	Washington.....	6
Colorado.....	4	West Virginia.....	3
Connecticut.....	13	Wisconsin.....	9
Delaware.....	2		
District of Columbia.....	7	<i>United States Possessions</i>	
Florida.....	9	Hawaii.....	2
Georgia.....	13	Puerto Rico.....	5
Idaho.....	3		
Illinois.....	21	Total.....	1,091
Indiana.....	10	Argentina.....	1
Iowa.....	6	Belgium.....	1
Kansas.....	5	Brazil.....	2
Kentucky.....	10	British West Indies.....	2
Louisiana.....	10	Canada.....	59
Maine.....	11	China.....	30
Maryland.....	15	Costa Rica.....	1
Massachusetts.....	32	Ecuador.....	2
Michigan.....	12	Egypt.....	3
Minnesota.....	12	England.....	2
Mississippi.....	3	France.....	2
Missouri.....	19	Greece.....	5
Montana.....	4	Haiti.....	1
Nebraska.....	4	India.....	35
New Hampshire.....	4	Mexico.....	5
New Jersey.....	39	Norway.....	1
New York.....	572	Peru.....	1
North Carolina.....	3	Philippines.....	2
North Dakota.....	5	Sweden.....	1
Ohio.....	32	South Africa.....	1
Oklahoma.....	3	Switzerland.....	2
Oregon.....	4	Syria.....	1
Pennsylvania.....	67	Transjordan.....	1
Rhode Island.....	3	Turkey.....	3
South Carolina.....	1	Venezuela.....	3
South Dakota.....	3		
Tennessee.....	9	Total.....	167
Texas.....	13		

TABLE VII

FELLOWSHIP APPLICATIONS AND AWARDS 1947-1948

	Number of Applications				No. Fellowships & Scholarships Available		Awards	
	1944-45	1945-46	1946-47	1947-48	Fellowships	Scholarships	Fellowships	Scholarships
Agriculture.....	11	9	18	28	17	0	7	0
Animal Biology..	9	14	16	21	3	9	3	3
Architecture....	0	1	4	1	1	1	0	0
Botany.....	2	6	4	2	0	1	0	0
Chemistry.....	10	13	28	46	10	0	5	0
Classics.....	5	3	5	9	3	2	1	4
Drama.....	2	1	2	2	0	0	0	0
Economics.....	1	3	7	15	12	0	6	0
Education.....	4	2	7	0	0	0	0	0
Engineering*								
Chem.E.....	0	0	12	10	0	0	0	0
C.E.....	0	1	4	7	8	1	2	1
E.E.....	0	0	2	2	5	0	0	0
M.E.....	0	1	5	8	12	0	4	0
English.....	16	18	16	21	2	0	2	0
Geology.....	..	0	3	4	2	2	2	2
German.....	1	0	2	2	5	0	1	0
Government.....	4	6	5	6	3	0	2	0
History.....	5	13	22	31	10	4	10	4
Home Economics	6	7	11	9	1	0	1	0
Industrial and Labor Relations..	..	..	3	1	0	0	0	0
Law.....	0	0	0	1	0	0	0	0
Mathematics....	6	11	16	12	1	0	1	0
Music.....	0	1	1	1	0	0	0	0
Nature Study....	2	1	3	4	1	4	1	2
Philosophy.....	4	5	11	32	9	1	6	1
Physics.....	0	5	22	30	1	0	1	0
Psychology.....	9	11	4	14	4	5	2	0
Romance Lang..	1	4	9	5	1	0	1	0
Sociology.....	2	1	7	7	0	0	0	0
Veterinary.....	0	1	1	0	0	6	0	0
Allen Seymour								
Olmstead.....	..	..	..	..	..	2	..	2
Phi Kappa Phi..	..	..	..	..	..	1	..	1
Sigma Xi.....	..	..	..	..	..	1	..	1
Tuition Scholarships.....	..	..	..	..	..	30	..	19
	100	140	250	331	111	70	58	40

*This does not include 15 McMullen Scholarships (\$900) to which appointment is made by the faculty of engineering.

LIBRARIAN'S REPORT

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Total number of applications	331
Number of applications from Cornellians	62
Total number of awards	98
Number of awards to Cornellians	41

	<i>Cornellians</i>	<i>Non-Cornellians</i>	<i>Total</i>
<i>Appointments to:</i>			
Fellowships	26	32	58
Scholarships	15	25	40
Total	41	57	98
Appointments made			98
Appointments not made			83
Appointments available			181
Fellowships available			\$ 66,085.00
Scholarships available			6,500.00
Free Tuition (with above)			37,700.00
Tuition Scholarships			9,000.00
Total amount available			\$119,285.00

APPENDIX IV

REPORT OF THE DIRECTOR OF THE UNIVERSITY LIBRARY

To the President of the University:

SIR: I have the honor to present the report of the University Library for the academic year 1946-1947.

STAFF

The year 1946-1947 is marked by the retirement from the library staff of three of its members who have held key positions in the organization: E. R. B. Willis, Associate Librarian; Miss Elizabeth Ingersoll, Supervisor of Accessions; and George de Grassi, Supervisor of Classification and Stacks. Their combined period of service totals over one hundred years. They have rendered notable service to the Library and its users for more than a generation and they have seen the library grow from a relatively small collection of high quality to its present position among the great research libraries in the country. Each of them has made his own significant contribution toward the development of the Library and has earned the respect and gratitude of the University for the services rendered.

Special note may well be taken of the services of Mr. E. R. B. Willis who joined the library staff as Superintendent of the Readers Division after receiving his Master's degree in Classics in 1914. Since that time, under varying titles, Mr. Willis has been concerned with the reference and circulation service of the Library and with the strengthening of its collections. Mr. Willis was advanced to the position of Assistant Librarian in 1923; he served as a member of the executive committee during the year 1929-1930 and in 1930 he was made Associate Librarian. From December 1945 until September 1946, Mr. Willis served as Acting Librarian and from that date until the time of his retirement, he has carried on his duties as Associate Librarian. Effective July 1, 1947, he has been given the title Associate Librarian, Emeritus. During this past year, Mr. Willis has been of inestimable value in introducing the new members of the staff to the activities and procedures of the Library, in assisting them in meeting the daily problems, and in formulating plans for the future.

In view of the retirement of these key staff members, it was apparent early in the year that much effort must be devoted to securing competent personnel to insure the continuation and development of the Library's program. An examination of the duties of these three positions and of the assignment of other tasks throughout the Library made it clear that it would be desirable to arrange for new allocations of duties in connection with the new appointments. Accordingly, after consideration with the Library Board, it was agreed that the position of Assistant Director should be defined in the future as an administrative position only instead of a combined administrative and service position. The responsibility for service to readers formerly carried by the Associate Librarian has accordingly been divided between the Circulation department and the Reference department, each of which is headed by an experienced professional librarian. The Acquisitions department instead of being solely a purchasing unit has had the scope of its activities enlarged to include all of the acquisition processes of the Library including gift and exchange work and responsibility for the duplicate collections. The care, order, and arrangement of the book stacks has been transferred from the Classification Librarian to the Circulation department and the cataloguing activities formerly carried on by the curators of the various special collections have been transferred to the Catalogue department, except where unusual language difficulties make this arrangement impracticable. Under the new arrangement, all the departments concerned with service to the public, that is Circulation, Reference, Periodicals, and Special Collections are placed under the immediate supervision of the Assistant Director. The three technical service departments, Acquisitions, Catalogue, and Classification report directly to the Director.

With this reorganization of the duties of the library approved, it was possible to define clearly the scope of each position which was to be filled and the search for the new staff members was begun. The outcome of that search has indeed been a happy one and we can record with satisfaction the following appointments:

G. F. Shepherd, Jr., Assistant Director; Felix Reichmann, Acquisitions Librarian; Wilfred L. Morin, Circulation Librarian; Dagny V. Anderson, Classification Librarian; and Josephine M. Tharpe, Reference Librarian.

At the very outset of the year, it was evident that some additional assistance must be provided immediately to carry the load at the public service desks and to advance the clerical work in the technical departments. Five new positions were provided through an emergency appropriation and the results have been highly gratifying.

The following staff members were appointed during the course of the year:

Anderson, Miss Dagny	Lauman, Miss Frances
Bailey, Mrs. Sarah J.	Nickels, Mrs. Bernice
Bawlf, Miss Ann	Paskow, Mrs. Joan
Bollinger, Mrs. Margaret	Reichmann, Felix
Drew, Mrs. Millicent	Roewer, Mrs. Dorothy
Dull, Miss Maxine	Rus, Mrs. Mary Jean
Emerson, Miss Mary	Sanford, Mrs. Irmgard
Holzman, Mrs. Elaine	Shepherd, G. F.
Hormats, Mrs. Arlene	Walker, Miss Frances

The following members of the staff have resigned during the past year:

Adams, Mrs. Dorothy	Holzman, Mrs. Elaine
Bailey, Mrs. Sarah J.	Paskow, Mrs. Joan
Beskin, Miss Hertha	Robinson, Mrs. Rosamund
Drew, Mrs. Millicent L.	Roewer, Mrs. Dorothy
Dull, Miss Maxine	Stickler, Carlyle R.
Emerson, Miss Mary	Taylor, Robert B.
Goldstein, Mrs. Edith	Timmerman, Miss Elizabeth

SPACE NEEDS OF THE UNIVERSITY LIBRARY

Even a casual visitor to the University Library in recent years could not help but be impressed with the need of additional space for readers, for books and for

library staff members. The most serious need which developed immediately after the opening of the fall semester was for additional seating space for readers. Day after day during the busy hours of the morning and the afternoon, students were to be found sitting on the steps in the lobby and leaning against card catalogue cases and exhibit cases while they tried to read reserve books. It was imperative that additional space be found immediately. Fortunately, the center room on the second floor of McGraw Hall was not in use and through the cooperation of the School of Business and Public Administration and the Department of Sociology it was made available for library use. With the assistance of the Department of Buildings and Grounds, it was possible to have this room well-lighted and suitably, if somewhat shabbily, equipped by early November. A portion of the reserve book collection was transferred and the immediate seating problem was solved. New chairs have recently been acquired and they have reduced the noise and have added to the comfort of readers. During the summer the room is being further refurbished preparatory to its use in the coming year as a reserve book room and as a reading room for the School of Business and Public Administration.

Although the McGraw Hall reserve room gave us a temporary solution to one of our space problems, it did nothing to provide additional shelving space for books or work space for library staff members. In an attempt to solve these further problems, a study was made over a period of several weeks of the use of the various seminar rooms in the library building. This study disclosed the fact that, while several of the seminar rooms were rather heavily used by small groups of graduate students, there were other seminar rooms which received only very slight use on the part of anyone. Discussions were, therefore, entered into with the departments to which these seminar rooms had been assigned to find other means of supplying their library needs. As a result, the former English seminar room has been transformed into the office of the Assistant Director and the three seminar rooms on the lower floor, formerly used by Greek and Latin and French and German, have been taken over for the Acquisitions and Catalogue departments. The European History seminar has been discontinued and the collection of classics material has been transferred to this room which now becomes the Classics Seminar.

The problem of additional shelving space for books could not be solved as readily, but with the assistance of the Administration and the cooperation of the Law School, arrangements were concluded whereby the basement stack floor in Myron Taylor Hall and a basement room in the new Administration Building were assigned to the University Library. Late in the year it was possible through a stroke of good luck to secure free-standing steel stacks for the room in the Administration Building. These two stack areas will provide shelving for upwards of 100,000 volumes of less frequently used publications which will be moved out of the University Library building. With these publications removed, it will be possible to reorganize and rearrange the stacks so that greater efficiency in shelving and delivery of books may be achieved.

It is obvious that all of these arrangements are merely temporary. They are in no sense a solution to the Library's space problems. With this realization in mind, the Library Board recommended to the Trustees that an architect be selected to develop plans for the expansion of the existing library building and also to prepare plans for a new library building. The architectural firm of O'Connor and Kilham has been selected and has been instructed to prepare plans and sketches for the expansion of the present building. In order that the architect might be provided with a comprehensive statement of the University's needs in a central library building, a special faculty committee was appointed by the Chairman of the Library Board to canvass faculty opinion, to study the problem and to submit a report. The members of this committee were Professors H. A. Wichelns, Chairman, Knight Biggerstaff, Morris G. Bishop, W. S. Cole, Herrell DeGraff, J. A. Hartell, and Paul H. Black. The Committee's report, submitted to the Library Board on June 10, was favorably received by the Board and, with only minor changes, was sent on to the architect to serve as a basis for his plans. When these plans are completed, if they appear to be a satisfactory solution of the University's problem of providing suitable and adequate quarters for its library, an intensive campaign must be undertaken to secure the funds necessary to execute the plans. If suitable plans for the expansion of the present library building cannot be developed, it is imperative

that plans for an entirely new building be prepared and a determined and successful effort be made to secure the required funds. The reputation of the University will suffer seriously unless a vigorous attack on its library problems can be undertaken and carried through to a satisfactory conclusion at an early date.

SURVEY

Throughout the years of its growth and expansion, the University has been well aware of the need for library facilities. Over the years library facilities of various kinds and varying quality have been developed in individual departments, colleges, and schools of the University. The relationships of these different libraries to the University Library have also varied greatly. The result of this growth and development is that we now find ourselves in a difficult and at times an ambiguous situation. There is frequently duplication and multiplication of effort, of publications, and of services. At other points, there are serious gaps which are filled by none of the existing agencies. It is only in recent years, for example, that a determined effort to construct a union catalogue in the University Library has been undertaken. This catalogue is not yet complete but it is more nearly so than it was in the past. In the acquisition of materials there is no clear cut division of responsibility, nor is there at present any means by which one can ascertain readily and easily what library is buying what publications. Internally there are such problems as that created by the classification system which is, by general agreement, out of date and inadequate for a collection of this size.

In an effort to secure an objective appraisal of the libraries of the University, as well as the most informed advice regarding our program for the future, it was considered desirable by the Library Board to recommend that a survey be made of the entire library situation of the University by men of national reputation in the university library field who have no present affiliation with Cornell University. It is a pleasure to report favorable action by the Board of Trustees on this proposal. Arrangements have, therefore, been made for a committee consisting of Dr. Louis R. Wilson, Dean Emeritus of the Graduate Library School of the University of Chicago and formerly Librarian of the University of North Carolina; Robert B. Downs, Director of Libraries and of the Library School of the University of Illinois; and Dr. Maurice F. Tauber, Professor in the School of Library Service at Columbia University, to conduct such a survey. The surveyors will undertake a thorough study and examination of the libraries on the campus and of their policies, collections, records, and procedures and will prepare a report for publication which is designed to analyze the present situation and make recommendations for future development. The report of the survey should chart the way for the libraries of the University during the next generation.

BOOK FUNDS

The funds which have been appropriated annually for the purchase of books have been inadequate to maintain the acquisition program which is essential in order that the faculty and students may have available the publications required for teaching and research purposes. In recent years there has been far too great reliance on gifts and donations from friends and supporters of the Library in building up the book collection. The experience of research libraries generally makes it clear that, although gifts and bequests are of great importance to any library, nevertheless no library can safely try to substitute chance gifts and donations for a planned program of purchases. Such a program, of the scope necessary in an institution offering a broad and diversified program of teaching and research, requires the regular annual provision of substantial funds for the purchase of books, periodicals, documents, manuscripts, and other types of library materials. In view of the limited funds provided by the annual appropriation for books, it is a tribute to the energy and the efficiency of the library staff that such a fine collection has been built up. But no staff can do the impossible, and if the Library is to fill in the gaps developed in the past because of lack of funds and also to go forward on a broad front collecting new publications, it must be assured of substantial annual appropriations for the purchase of books.

During the war years, because of the unavailability of European publications, the Library's purchasing program was curtailed drastically. This has resulted in a surplus which has been carried forward for several years. By action of the Library Board, this war fund reserve has been made available for active purchasing during the year 1947-1948. The total funds available for books for the coming year, therefore, because of the reappropriations, will be rather substantial, but it must be clearly understood that this provides for one year only and that thereafter, beginning next year, a very considerable increase in the appropriations for the purchase of books will be essential.

ACQUISITIONS

The total amount expended for books, periodicals, and binding during the past year was \$45,678.62 as compared with \$36,596 for the year 1945-1946. The total number of items added to the University Library and its various collections was 19,162. Of the 11,385 items added to the general library, 4,065 were gifts and 7,320 were purchases.

The accompanying table shows the number of items added during the year and the present extent of all of the libraries of the University. The table includes for the first time the holdings of the libraries of the following units of the University located outside of Ithaca: The New York State Agricultural Experiment Station at Geneva, N. Y., Cornell Aeronautical Laboratory at Buffalo, and Cornell Medical College in New York City.

GROWTH OF THE LIBRARIES, 1946-1947

	<i>Items Added</i>	<i>Present Extent</i>
General Library (including Wordsworth Collection).....	11,385	783,270
Dante Collection.....	39	10,953
Petrarch Collection.....	14	4,607
Icelandic Collection.....	128	22,786
Wason Chinese Collection.....	616	44,366
Cornell University Theses.....	480	17,616
Philological Seminary.....	2	1,193
Latin Seminary.....	...	326
Sage School of Philosophy.....	7	1,002
French Seminary.....	...	24
German Seminary.....	...	759
American History Seminary.....	...	671
Manuscripts.....	26	1,103
Maps.....	4,897	8,782
Cornell Univ. Maps and Plans.....	...	202
U. S. Coast Survey.....	...	950
U. S. Geological Survey Topographical Maps.....	234	6,880
British Geological Survey Maps.....	...	600
College of Architecture Library.....	333	6,711
Barnes Hall Library (Religion).....	49	4,516
Chemistry Library (Special).....	25	652
Comstock Memorial Library (Entomology).....	205	3,395
Economics Laboratory Collection.....	...	340
Forestry Library.....	...	1,181
Goldwin Smith Hall Library.....	102	5,029
Gray Memorial Library (Electrical Engineering).....	12	936
Kuichling Library (Civil Engineering).....	6	2,386
Rockefeller Hall Library (Physics).....	...	1,190
Van Cleef Library (Zoology).....	325	6,572
Flower Library (Veterinary).....	277	14,995
Total including MSS and Maps.....	19,162	953,993

New York State College of Agriculture Library.....	5,358	152,494
New York State College of Home Economics Library	1,235	14,978
Law Library.....	1,846	107,475
New York State Veterinary College Library.....	468	3,006
New York State School of Industrial and Labor Relations Library.....	2,655	4,922
New York State Agricultural Experiment Station Library....	766	21,853
Cornell Aeronautical Laboratory Library.....	460	3,808
Cornell Medical College Library.....	779	37,269
Total in all Libraries.....	32,729	1,299,798

Among the important acquisitions of the year were the following: *Acta Leidensia*, 1925–date; *Annals of the Finnish Academy of Science*, 24 vols.; *Archives Neerlandaises de Physiologie*, 28 vols.; *Composito Mathematica*, 1934–date; *Denkmaeler der Tonkunst in Oesterreich*, 18 vols.; *Fauna of British India*, 22 vols.; *Jaarboek van het Mijnesen, 1872–1939*; *Journal of the Parliaments of the Empire, 1920–44*, 25 vols.; *Louisiana Historical Society*, 23 vols.; *Monumenta Musicae Byzantinae*, 8 vols.; *Neue Zuercher Zeitung (war years, 1939–1943)*; *Ordonnances des Roys de France*, 23 vols.; *Oregon Historical Society*, 44 vols.; *Petrarca. De Vita Solitaria*, Paris, 1500; *Wilson, Thomas. The Arte of Rhetorique*. London, 1553.

CATALOGUING AND CLASSIFICATION

The records of the year's work in cataloguing and classification are given with other statistics under the heading *Statistical Records* near the end of this report. It is sufficient to note here that there has been a significant increase in the quantity of publications processed in almost all categories. In the chief category, "Volumes and Pamphlets Catalogued," it is especially noteworthy that an increase of approximately 1,400 items was made. Equally pleasing is the progress which has been made in dealing with the maps received from the Army Map Service. Over 5,000 of these maps have now been fully catalogued, classified, arranged in folders, and placed in map cases.

The problems which confront us in the technical departments are many and serious and the plans for improvement in this aspect of the Library's activity must be worked out very carefully on a long-term basis. One of our first problems is the organization of the work in such a way that a clear distinction is observed between the professional and the clerical tasks involved. Some progress in this respect has been made in the past year and the opportunity to appoint additional clerical personnel afforded by the new budget will enable us to initiate some significant changes.

Beyond this, we face the need for building up a card shelf-list of our entire collection because the loose-leaf shelf-list, in many of its parts, is no longer useful or usable. The classification system is not satisfactory and must be either adapted and revised or changed completely at an early date. The existing records of the Library's serial holdings are incomplete and in some respects inadequate, perhaps inaccurate. One reason for this is that the Library has not segregated its serial record work as fully as is generally considered desirable and has not provided a separate serial record. It seems probable that such a record will have to be compiled. For the use of several of its special collections, the Library has relied on the printed catalogues of these collections. This practice has proved confusing to many readers who expect to find all of the Library's holdings recorded in the public card catalogue. Means must be found to incorporate the records of these special collections in the card catalogue in the near future. Furthermore there are various collections and groups of books in the Library, some of which have been here for many years, which are incompletely catalogued or wholly uncatalogued. It is of obvious importance that these materials be promptly incorporated into the card catalogue. For many of the older books in the library, the catalogue record consists of hand written cards, some of which are difficult to decipher, which should be replaced by printed or type-written cards. It has been customary for some years to send one copy of the catalogue card with each book being catalogued for a department or college library.

The department librarian then typed or purchased additional cards in order to have a complete set. This is obviously an uneconomical procedure for the University, even if it was economical for the Library. Plans have been made to change this practice just as soon as the clerical staff in the Catalogue Department has gained sufficient experience to carry the additional load. We will then send full sets of catalogue cards with each book for departmental or college libraries. The cataloguing job will be done once and once only.

It is apparent from this listing of work to be done that the staff of the Catalogue Department will have to be built up steadily to the point where it will be large enough to do the task assigned to it. There is no other way in which the goal can be achieved. The backlog of work is very great and it will require a considerably expanded staff for a number of years to clear it up; thereafter, a somewhat smaller staff should be able to keep abreast of the current volume of incoming publications.

PERIODICALS AND BINDING

The Periodical Department reports 167 new subscriptions entered during the year of which 101 are purchases and 66 are gifts or exchanges. Included in the new acquisitions are the following:

Acta anatomica	Middle East Journal
Biography Index	Motion Picture Herald
Bulletin of the Atomic Scientists	Pacific Science
Erasmus	Royal Aeronautical Society, Journal
Experimentia	Sinologica
International Relations	Soviet Literature
Journal of Colloid Science	Travel and Camera
Letteratura	United Nations Weekly Bulletin
Mathematics Student	

The following files of newspapers were acquired during the past year either by gift, through the agency of the Collection of Regional History, or by purchase: Batavia (N. Y.) Times 1825-1945 (with gaps); Connecticut Courrant (Hartford) 20 odd issues 1805-1807; Detroit Free Press 1879-1888; Dundee (N. Y.) Observer 1878-1933; Elmira Advertiser 1875-1933; Irish Citizen (N. Y.) 1867-1872; Izvestiia (Moscow) Jan. 1940-June 1946 (Microfilm); Neue Zürcher Zeitung, Nov. 1939-Dec. 1945, Sept. 1946 to date; Pravda (Moscow) Jan. 1941-Nov. 1946 (Microfilm).

The difficulty of securing good library binding with the work done neatly and promptly has been a source of annoyance and irritation to many users of the library. Binding materials have been difficult to obtain in recent years and the small local binders have not been in a favorable position to secure the allotment of supplies required to do our work. This bottleneck of supplies has been overcome within the past year but these binderies are still so understaffed as to be unable to do a large volume of work in a reasonable length of time. In order to overcome this difficulty arrangements have been made with a binder in Syracuse who has handled a considerable volume of materials for us within the past five months and who has not only given us excellent workmanship but has also made prompt delivery on all shipments. If the situation with regard to the local binderies does not improve, it seems clear that more and more of our work will have to be sent elsewhere in order to avoid the long delays of recent years.

USE OF LIBRARY MATERIAL

The Library was open for service to readers 310 days during the year. The increased enrollment is reflected in the registration and circulation records of the library. All categories of loans with the single exception of loans to "Laboratories and Departments" have shown a substantial increase in comparison with the preceding year. The total recorded use of the library, exclusive of inter-library loans, was greater by approximately one-third, totaling 226,896 volumes. Interestingly enough the most significant increase is in the category of home loans of books from the stacks. In this category the increase in use amounted to more than 50 per cent. Since this type of library use is counted the most significant by many educators

and students of university library problems, the substantial increase is a source of deep satisfaction and at the same time an indication of the significant part which the Library plays in the instructional and research program of the University. In the course of the year the restriction on the number of books which an undergraduate may borrow was removed and this has undoubtedly contributed in some measure to the increased use of books. It is worthy of note that there has been no abuse of the more liberal borrowing privileges granted to undergraduates and there is evidence that the new loan privileges are greatly appreciated.

As in the past, the collections of this library have been drawn upon by the libraries of other universities, colleges, government departments, and business firms. During the year loans totaling 1,260 volumes were made to 206 libraries. Among the libraries borrowing books from us were the following:

AnSCO.....	82	Harvard University.....	16
Wells College.....	48	University of Michigan.....	16
University of Rochester.....	38	University of California.....	15
Eastman Kodak Company.....	32	Hobart College.....	14
Colgate University.....	31	Mary Washington College.....	14
State University of Iowa.....	30	West Baden College.....	14
New York State Library.....	28	Duke University.....	12
Princeton University.....	28	General Electric Company.....	12
Syracuse University.....	27	Hartwick College.....	12
Sampson College.....	23	University of Buffalo.....	11
Columbia University.....	22	Hamilton College.....	11
Newberry Library.....	20	University of Kansas.....	11
Corning Glass Works.....	19	RCA Victor.....	11
E. I. duPont de Nemours and Co.....	19	Rice Institute.....	11
University of Toronto.....	19	University of Pennsylvania.....	10
University of Chicago.....	16		

For the use of faculty members and students we have borrowed in the course of the year 604 volumes from 100 different libraries. Among the libraries from whom loans were made were the following:

New York State Library.....	85	Brown University.....	16
Columbia University.....	59	University of Chicago.....	16
Library of Congress.....	55	Boston Public Library.....	15
Princeton University.....	41	University of Michigan.....	14
University of Rochester.....	31	Yale University.....	13
Harvard University.....	28	University of Illinois.....	10
University of Pennsylvania.....	19		

The increased use of inter-library loans both for books being loaned by this library and for books being borrowed from other libraries is almost exactly 33½ per cent. The increase in off-campus activity is thus approximately the same as the increased use of the Library's facilities on the campus.

GIFTS

The collections of the Library as they exist today represent in very considerable part the generosity of the friends of the University and the Library. Without the steady flow of gifts from alumni, faculty members, students, and friends which has gone on year after year since the establishment of the Library, the collections could not be nearly so varied nor so rich as they are. This year we have again the pleasant opportunity to acknowledge the gifts of the Library's many friends. Selected for special mention in the following paragraphs are some of the more unusual and substantial gifts of the year. Space limitations alone prevent us from giving a more complete and detailed report on all the gifts which we have received.

Among our chief donors each year are the members of our own faculty. While gifts have come in this past year from many of them, the following have been among the most generous and thoughtful and their gifts are gratefully acknowledged: Professor A. L. Andrews, Emeritus, 15 volumes of German and Scandinavian

literature; Professor S. A. Asdell, 40 pieces of British War literature; Professor Morris G. Bishop, 30 volumes of French literature and English and French poetry; Professor Leonard S. Cottrell, jr., 38 miscellaneous volumes; Professor Paul T. Homan, 150 volumes and pamphlets on economics; Professor Richard Robinson, 123 volumes and pamphlets on philosophical subjects; Professor Walter H. Stainton, a collection of newspapers, periodicals, and pamphlets on World War II; Professor and Mrs. Albert H. Wright, volumes on local history and genealogy and the 1946 files of several periodicals. From Professor Liberty Hyde Bailey we received Fascicle II, vol. 7 of his *Gentes Herbarum*; from Professor G. D. Harris, Nos. 116-121 of his *Bulletins of American Palaeontology*.

The royalties on President Day's book *Statistical Analysis* have again been credited to the Library book fund.

The Cornell University Press has continued its generous practice of making a gift to the Library of one copy of all of its publications. The Press also made available 700 volumes from its stock for use as exchange material.

The Collection of Regional History has been responsible for securing the files of various newspapers and has also served as the avenue through which the Charles J. Paterson collection of early city directories has come to the library. This collection comprises many early nineteenth century directories of historical value.

Major William M. Leffingwell, class of 1917, General Staff, U. S. Army, presented over 500 medical books, and from Gordon Murray we received 38 volumes by and about Lafcadio Hearn.

The French government through its Consulate in New York presented fifty books and sample numbers of many periodicals as indicative of the new trends in French publishing.

Under the leadership of Mrs. Harold E. Haber the high school classmates of Captain Joseph E. Percy, class of 1934, who was killed in an airplane crash while on a military mission, contributed \$125 as a memorial fund for the purchase of books in Chemistry.

E. Vail Stebbins, class of 1893, brought us a copy of the first edition of the score of Wagner's *Tannhäuser*, autographed by the composer for presentation to Tichatschek, the tenor who sang the principal part in the first production of the opera.

An anonymous donor presented \$500 to be spent for books on India, and Mrs. Louise F. Peirce has contributed \$55 for the purchase of books.

Mrs. Mattie A. Dalaker and sons, Harold Cornell Dalaker and Erling Akre Dalaker, made a gift of \$500 in memory of Hans H. Dalaker, class of 1908, for the purchase of books in mathematics.

Each year we have the pleasure of acknowledging further gifts from Victor Emanuel to the Wordsworth Collection. This year we record three autograph letters, two of them written by Wordsworth.

Near the close of the year the Library received its most important single gift, a manuscript copy of Gervasius of Tilbury's *Otia Imperialia*. This interesting manuscript of a famous medieval encyclopedia was evidently copied in a Paris scriptorium early in the fourteenth century and remained in France until about 1940. So far as is known this is the only complete copy in America. The manuscript is the gift of Frederick S. Crofts, class of 1905.

The Library cheerfully records its deep appreciation and gratitude for these generous gifts, and at the same time wishes to acknowledge with sincere thanks all the gifts it has received from its many friends. In acknowledging these past kindnesses, it may not be inappropriate to bespeak similar gifts in the future.

STATISTICAL RECORDS

Not all of the activities of the Library are amenable to significant statistical description. The tables given below record those activities which can be readily counted and are commonly considered as representative of some of the Library's services. For purposes of comparison corresponding figures for the preceding year are given in the column at the extreme right.

PRESIDENT'S REPORT

<i>Classification</i>	<i>1946-47</i>	<i>1945-46</i>
Books.....	11,828	11,998
Documents.....	2,657	2,092
Maps.....	5,119	424
Manuscripts.....	19	8
Microfilms.....	69	20
Theses.....	383	298
Varia.....	3	...
Total.....	20,078	14,840
<i>Cataloguing</i>	<i>1946-47</i>	<i>1945-46</i>
Volumes and pamphlets catalogued.....	17,291	15,898
Maps catalogued.....	5,131	419
Mss. catalogued.....	15	7
Microfilms catalogued, 33 titles on.....	73	20
Titles added to the catalogue.....	10,129	9,328
Typewritten cards added.....	18,624	15,767
Printed cards added.....	20,245	18,037
Cards added to Library of Congress depository catalogue.....	79,561	70,057
Additions to cards.....	8,414	8,811
Volumes recatalogued.....	393	224
Cards corrected or dated.....	3,548	2,445
<i>Periodicals and Binding</i>	<i>1946-47</i>	<i>1945-46</i>
Periodicals currently received:		
By subscription.....	1,310	1,205
By gift and exchange.....	1,420	1,380
Total.....	2,730	2,585
Binding:		
Vols. of periodicals bound.....	3,628	3,235
Volumes repaired.....	996	1,381
New books bound.....	1,705	...
Total.....	6,329	
<i>Registration and Circulation</i>	<i>1946-47</i>	<i>1945-46</i>
Registration:		
Officers.....	1,068	1,174
Students.....	5,401	4,460
Special cases.....	12	12
Circulation:		
Reading Room—Delivery Desk.....	37,994	58,469
Reading Room—Reserve Desk (McGraw—36,361).....	105,008	55,783
Seminar Rooms.....	3,790	1,960
Stalls.....	5,085	3,135
Laboratories and Departments.....	4,550	4,756
Home use (7-Day—9,275).....	70,469	46,330
Total recorded use.....	226,896	170,433

When I assumed the Directorship of the University Library in September, 1946, I was aware of some of its serious problems. As the months passed, it became ever clearer that the Library was under compulsion to make up lost ground on three fronts: quarters, staff, and book funds. In this first year, temporary solutions to the most pressing space problems have been found; a start toward building the staff up

to the size and quality required has been made; and a relatively small increase in book funds has been provided. These developments are encouraging if they are recognized by all concerned for what they really are: merely the first steps toward the objective of an efficient university library system adequately housed, staffed, and supported.

In view of the serious nature of our problems it has appeared desirable to utilize the University Library Board to the fullest possible extent. The Board has met monthly throughout the year and has considered all library problems of importance. I wish to take this opportunity of expressing my gratitude to the members of the Board for their patience, courtesy, and support. It has been a pleasure to work with them.

Such agencies as the University Library can attain success in their undertakings only if they have a loyal and able staff. We are fortunate in having as devoted and hard-working a staff as one will find anywhere. It is a pleasure to acknowledge their genuine interest and their unflinching assistance and support. I wish finally to acknowledge with sincere thanks the understanding, the counsel, and the support which you have so generously given to me during my first year at Cornell. It has made the year an interesting one and it promises well for the future of the University Library.

S. A. MCCARTHY,
Director of the University Library.

APPENDIX V

REPORT OF THE ACTING CURATOR, COLLECTION OF REGIONAL HISTORY

To the President of the University:

SIR: During the past year 130 manuscript accessions were made by the Collection of Regional History. New friends throughout the region generously donated their family papers and records, while old friends, many of them Cornellians, continued to contribute to our holdings and to interest others in our activities. Their combined gifts and deposits form a fresh mine of material for research workers in the economic, political, social, military, religious, and other fields of history.

Documents relating to political affairs, both local and national, are to be found in a number of collections, among them being the Spalding papers, the Edwin Barber Morgan papers, the additional papers of Josiah B. Williams, and the letter-books of John C. Davies. The Spalding papers donated by Mr. Louis W. Kaiser include correspondence about political agitation on the canal and anti-Masonic questions in Western New York during the 1820's and 1830's. In the same collection and closely linked with this agitation is the correspondence concerning the development of local newspapers between Lyman Spalding, editor of *Plain Truth* and *Priestcraft Exposed* of Lockport, Thomas B. Barnum, editor of the *Freeman* of Canandaigua, Elisha Dean, Elihu Francis Marshall, a Hicksite Quaker and the City Treasurer of Rochester, and others.

Donated by the estate of Professor Emily Hickman of Rutgers and containing correspondence, broadsides, pamphlets, and clippings, the papers of the Honorable Edwin B. Morgan, a trustee of Cornell University, 1865-1874, pertain largely to his political campaigns as a candidate for election to Congress in 1850 and 1852. Miss Augusta Williams and Mrs. Tanner of Ithaca have contributed the remainder of the papers of their father, Josiah B. Williams, which throws further light on his activities as a New York State senator. Donated by Albert T. Wilkinson of Camden, the private letter books, 1900-1901, of John C. Davies, Attorney General of the State of New York, contain letters to Robert M. LaFollette, Theodore Roosevelt, Elihu Root, Hamilton Fish, Thomas C. Platt, and others.

Local political activities are revealed by documents in the Clemons papers and

other collections. Contributed by Professor Theodore Thayer of Rutgers, the papers of Alfred Clemons of Buffalo, teacher, goldsmith, speculator in farm lands, city lots, and western lands, a participant in the gold rush and a colonel in the State Militia, include documents relating to his activities as sheriff of Buffalo and a rare series of 41 broadsides, 1848-1853, offering rewards for the apprehension of horse thieves, bank robbers, and escaped convicts.

In the Hulce Family collection, 1786-1893, donated by Mrs. George N. Lauman of Ithaca, there are accounts, correspondence and other records dealing with the development of land, the lumber industry, churches, schools, roads, mills, brick-kilns, bridges, railroads, banks, and social organizations in Delaware and Broome Counties.

The Pike Family letters, 1810-1867, Chenango County, the Templeton Family letters, 1832-1856, Union County, Pennsylvania, the Solomon Goddard letters, 1855-1869, Cortland County, and other series of letters relate to the development of this region and also to that of the western lands held by the families. Donated by Cameron B. Waterman, the papers of Charles and Ira Davenport, 1833-1910, of Angelica and Bath are largely concerned with loans on western land they owned, collections on loans, mortgages and taxes, and the cutting of timber on Michigan property. The Davenport Brothers were among the numerous eastern men of means who invested substantial sums, in their case many thousands of dollars, in western land and loans. Throughout the legal papers of Judge Douglass Boardman, donated by Hardy Lee of Ithaca, are series of letters dealing with western farm mortgages. Such collections of papers make it possible to reconstruct the story of the part played by eastern capital in the development of western America.

A number of collections contain documents bearing upon military history. The Francis M. Finch papers donated by Mrs. Othan G. Guerlac of Ithaca include documents relating to the Revolutionary War activities of Captain Charles de Klauman, recommended by the King of Denmark to the government of Virginia. Additional interest is given the de Klauman papers by the presence among them of Patrick Henry and Thomas Jefferson items. The family papers deposited by Mrs. R. Edwards of Lisle include the Revolutionary War diary of Colonel Ebenezer Francis of Cambridge who came into contact with many patriot officers as well as with the Continental Congress and General Washington. In the same papers are the letters, 1861-1865, of Major Jacob A. Camp, a paymaster commissioned by Lincoln. The Stewart papers contain perhaps an almost complete set of records, 1861-1865, of the 3rd Artillery Regiment of New York commanded by Colonel Charles Stewart. Two Civil War diaries were donated by Mr. John W. Taggart of Bath. Mr. L. Emerick of Fulton donated an unusual set of papers relating to the activities, 1861-1863, of the Fulton War Committee which assessed citizens, recruited soldiers, and aided them and their families.

Among the recent accessions dealing with the development of churches in the region are the records, 1891-1900, of the First Baptist Church of Cortland, and the records, 1812-1863, of the First Presbyterian Church of Parma, Monroe County. A number of series of letters relating to feminism and to scholastic, social, and teaching activities at Oswego Normal and Training School, 1869-1876, Ann Arbor, 1872-1876, the School for Girls in New York City, 1877-1892, and Cornell and Leland Stanford, 1886-1893, are in the papers of the Williams Family of Weedsport. The Collection's papers on the development of banking have been supplemented by the records of the Oswego River Bank, 1855-1864, and its successor, the First National Bank of Fulton.

Our most recent accession was a gift by Mr. Elmer Morrill of Fulton, a nephew of Senator Justin S. Morrill, and included a photographed copy of a manuscript *Wanderings and Scribbings or Journal of a Journey South and West in May, June and July, A.D. 1847*, by Justin S. Morrill.

With his continued enthusiasm for the Collection as a depository for historical documents, Mr. Carter R. Kingsley of Bath donated various papers including family documents, 1753-1852. Among other Bath donors were Mrs. J. M. Parkhurst, Mr. Samuel Balcom, and Mr. Henry M. Hille.

Mr. Walter E. Edwards of Syracuse continued his successful efforts to stimulate the interest of others in the activities of the Collection, and also continued his donations of documents including his *Reminiscences of Forest Home*.

A considerable amount of Cornelliana has been donated by members of the faculty and the administrative staff as well as by loyal Cornellians. Miss Mary Murrell, the secretary of the Collection and a Cornellian, is undertaking the project of making this collection as complete as possible.

During the past year 36,183 issues of newspapers were received by the Collection, and 27,698 items were added to the pamphlet file. Thirty-one editors from various counties of New York are contributing copies of their local weekly newspapers for preservation. The Corporation Report file has been brought up to date and the reference shelf expanded.

Many of the newspapers distributed to the Cornell University Library were in bound volumes and long runs. Mr. Malcom Platt of Batavia, the son of Chester C. Platt, the well-known political leader whose papers we hold, contributed 57 volumes 1824-1945, of *The Spirit of the Times*, a newspaper edited by his father and discontinued in 1946. The Stone Memorial Library donated 272 volumes of the *Elmira Advertiser*, 1869-1939. In partnership with the Library, the Collection purchased a ten-year run of the *Detroit Free Press* and a four-year run of the *Village Record Weekly* of Waynesboro, Pennsylvania.

Printed material received by the Collection and placed in the Library included the 279 city and state directories, 1786-1903, many of them rare editions, donated by Mr. Charles Paterson of Cleveland, Ohio. Also placed in the Library was the second volume of Stafford C. Cleveland's *The History of Yates County* which was purchased by the Collection and of which only one other known copy exists. Before the book was bound, Cleveland went into bankruptcy, and his second volumes were consigned to destruction. Some unknown person salvaged several copies.

After the flood of June which damaged a part of the Cornell University Archives housed in the Prudence Risley vault, the Collection was permitted to remove for preservation any of the records. Thus some of the earliest records of the University, the correspondence of President Farrand, the Trustees' work-sheets and other papers have been added to documents handed over the preceding fall which included the accounts and correspondence relating to Cornell's western lands and the correspondence of President Schurman. Water-soaked documents were dried, cleaned of mold, and later processed. For the lack of space and staff, other material, including tons of vouchers and general correspondence, were dried and returned to the vault without any inspection as to the presence of any items of particular value. The task involved the advice and co-operation of the Treasurer's Office, a number of workers, and considerable time, but certainly the early and unduplicated records of Cornell University, the correspondence of its presidents, the papers of its trustees, documentary evidence as to its founding in the land grants and other papers relating to its development are worthy of particular attention and preservation.

The electrocopy machine acquired this past year by the Collection has made it possible to obtain facsimiles of documents otherwise unavailable yet desirable as holdings in themselves or as supplements to other papers, and to supply copies of our documents at cost price to research workers and to distinguished scholars. Thus copies of our Jeffersonian items have gone to Julian Boyd, editor of the forthcoming Thomas Jefferson Papers, Edward Eggleston letters to the Minnesota Historical Society for the use of William Randel, James McCall letters to Washington University, Horace Greeley letters to New York, and copies of other documents to various other destinations.

The descriptions and analyses of the Collection's acquisitions during 1945-1946 as given in the second *Report* are resulting in gifts of documents by new friends and in further requests by scholars and research workers for documentary sources. Works published during the past year which contain material from the Collection of Regional History include *The United States, American Democracy in World Perspective*, by Billington, Loewenberg and Brockunier, and *Edward Eggleston, Author of the Hoosier School-Master*, by William Randel. The textbook reproduces many illustrations from the William Pierrepont White Collection; the biography is based in part upon the Edward Eggleston Papers.

EDITH M. FOX,
Acting Curator, Collection of Regional History.

APPENDIX VI*

REPORT OF THE DEAN OF THE COLLEGE OF ARTS
AND SCIENCES

To the President of the University:

SIR: I have the honor to present this report of the College of Arts and Sciences for the academic year 1946-1947.

The most significant event in the College during the past year was the marked improvement in the salary scale for the College. Although there had been a steady improvement even during the difficult war years in the salary scales in the College, the step taken in the last budget had the most marked and salutary effect. The steep rise in the cost of living and the atmosphere of uncertainty which was characteristic of the postwar period had a disquieting effect which fortunately was not long lived. The best measure that can be provided of the support of the vast majority of the faculty is found in the success of the College in maintaining its faculty in a period when changes are swift and sometimes drastic. There seems no doubt that the College of Arts and Sciences had done better than most institutions of equal rank in maintaining its faculty and in developing a curriculum in line with the opportunities and obligations of the postwar period.

The Administration of the University has been particularly generous in improving the remuneration for the very large number of graduate assistants in this College. This College depends to an unusual degree upon student assistance in the many and large service courses. At the present moment it is quite impossible to replace them, even though the College must, in the future, endeavor to replace some of the graduate assistants by more experienced and better trained instructors.

Amongst the new educational undertakings, the following deserve special mention.

INTERDEPARTMENTAL PROGRAM OF STATISTICAL INSTRUCTION

The College of Arts and Sciences is particularly strong in statistics. In past years, however, there was little cooperation between various branches of statistics within the College or in the other colleges of the University. Very excellent progress has been made in establishing cooperation in a field of fundamental importance to sociology, economics, psychology, and such other groups outside the college as the School of Industrial and Labor Relations and the School of Business and Public Administration. It is hoped that in succeeding years a bureau of statistical service can be established which will serve to coordinate the equipment and skills now on the campus.

AREA STUDIES CURRICULUM

The year has seen further development in Far Eastern Studies and it may be fairly claimed that the group at Cornell engaged in the development of Far Eastern Studies has become of national significance. Although there is a distinct department of Far Eastern Studies, it is the policy of this department to seek effective cooperation with other departments. In consequence a new appointment has been made of an assistant professor in the Department of Economics whose competence in the field of Far Eastern economics makes it possible for him to be at the same time a member of the Department of Far Eastern Studies. This policy will be followed when other appointments are possible in such departments as Sociology and Government.

During the year plans have been made for an entirely new approach to area studies. These plans involve a special development in social anthropology which is to provide a functional approach to the areas of India, Southeast Asia, and Latin America. If successful, these plans will also call for a close measure of cooperation with the College of Agriculture and the College of Engineering. Although the presence of the College of Arts and Sciences in the midst of other strong progressive colleges produces unusual difficulties, it also produces unusual opportunities. It

has long been obvious to members of this College that the influence, for example, of the College of Agriculture upon relatively backward communities in Asia and Latin America produces problems which are sociological, psychological, and economic in character. These problems consequently form an area in which co-operation between the College of Arts and Sciences and the College of Agriculture can be real and beneficial, both in an intellectual and practical aspect.

DIVISION OF PSYCHOLOGY

During the year a Division of Psychology was established in the University. The outstanding characteristic of this Division is its inclusiveness. Until recently, a number of independent groups of psychologists carried out their work independently one of the other. In consequence the very rich resources of the campus were not obvious to the student body. With the existence of a Division of Psychology all of these groups have accepted a common function and are now actively engaged in developing a well balanced curriculum and in adjusting their policies to one another. It may be pointed out that a step has been taken in overcoming the separateness between various schools and colleges on the campus which has sometimes done damage to the true interests of the university as a whole.

A DIVISION OF SOCIAL SCIENCES

It is the clear opinion of the Dean of the College that the present lack of any real contact between the various departments of social science has not had a beneficial influence upon their development. During the past year much discussion has taken place on the possibility and advisability of bringing about a closer relationship between these departments both in teaching and research. Up to the present moment no agreement has been reached. The Dean of the College intends to continue his efforts to bring about a closer understanding between these departments, particularly since there has been no time in the present century when the place of the social sciences in the curriculum of the College of Arts and Sciences has been so impressive and urgent. Largely through the initiative of the Department of Sociology, it has been possible to appoint a Director of Research with a small budget. It is hoped that the small organization thus established will grow and render the service which similar organizations have rendered with outstanding success in other institutions.

EDUCATION AND TEACHER TRAINING

There is common agreement that the College should make better provision than it has for the training of teachers. Perhaps because of the difficulty of making adequate appointments and partly because of some uncertainty concerning the basis upon which teacher training should be established, little progress has been made. It is hoped that during the next year a sound policy of teacher training can be inaugurated.

CREATIVE WRITING

One of the gratifying developments of the past year has been the expansion in creative writing. An active group of young members of the Department of English have devoted themselves to the stimulation of creative writing. Some excellent student work has already been published and it now seems likely that the publication of creative writing by students will be an annual undertaking.

DIVISION OF MODERN LANGUAGES

The establishment of a Division of Modern Languages was mentioned in the last report. The Division ended a successful year with its transfer to new and more adequate quarters. In the four experimental years still left, the Division will justify itself if it can succeed in making an integral contribution to area studies, to the Division of Literature, and to the need of all departments for better training in language as a tool to study and research. There is already no doubt that the area studies program at Cornell University has benefited greatly from the flexibility possible in the Division of Modern Languages. A great deal, however, remains to be

done. During the coming year it is hoped that an advisory clinic can be established available to high schools of the State.

DEVELOPMENT IN THE SCIENCES

One of the emphatic experiences of the past year has been the clearly marked progress in all of the sciences, including geology and zoology. Although comment on research activities properly belongs in the report of the Dean of the Graduate School the life of the College of Arts and Sciences has been made lively by the research programs and by the preparation for still stronger development of research and teaching on the highest level. The new synchrotron will not be completed at the time of this report, but its building is material evidence of an activity which will very greatly influence other departments besides Physics and the Laboratory of Nuclear Studies.

SCHOLARSHIPS AND ADMISSIONS

The pressure upon the College for admissions has been at least as great this year as it was last year. The College has been under the painful necessity of turning away a very large number of applicants. Towards the end of the admissions period, however, a discouraging weakness in the College was made manifest. An unexpectedly large number of withdrawals of some of the very best applications revealed the disadvantage the College is under because of the lack of entrance and tuition scholarships. The College of Arts and Sciences is almost unique, both on the campus and among institutions of equal standing, for its poverty in this regard. A preliminary study of withdrawals made it plain that many students were unable to avail themselves of the opportunity for education at Cornell because of inadequate financial resources. This meant also that many students who showed a preference for Cornell felt none the less compelled to accept admission to other institutions which were able to offer them scholarships and other forms of financial assistance. One of the most urgent needs of the College, therefore, is an increase in the number of scholarships. It is not likely that the great excess of applications over possible admissions will continue indefinitely. It is certain, therefore, that unless more scholarships are available the College of Arts and Sciences will not be able to hold its own in competition with other institutions in the East.

I cannot close this report without expressing my appreciation of the very real encouragement which this College has received from the President and the Board of Trustees.

C. W. DE KIEWIET,
Dean of the College of Arts and Sciences.

APPENDIX VII

REPORT OF THE DEAN OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR: I have the honor to present the report of the College of Architecture for the academic year 1946-1947.

ENROLLMENT

During 1946-1947 the College of Architecture reached the highest enrollment in its history. The total undergraduate enrollment in the fall of 1946 was 201, an increase of 80 over the enrollment in 1945. Of these 38 were old students in the College who had returned to finish their studies following service in the Armed Forces.

In the student body there were 115 veterans of the American and Allied Forces. Eleven students were from foreign countries, including Canada, Colombia, Mexico, Norway, Panama, and Turkey. The following table is a summary of enrollment for the two terms of the academic year 1946-1947.

COLLEGE OF ARCHITECTURE

63

Fall Term, 1946

Undergraduates.....	201
Architecture.....	170
Landscape Architecture.....	8
Fine Arts.....	23
Graduates.....	14
Fine Arts.....	5
Regional and City Planning.....	9
Total.....	215

Spring Term, 1947

Undergraduates.....	185
Architecture.....	153
Landscape Architecture.....	6
Fine Arts.....	26
Graduates.....	13
Fine Arts.....	4
Regional and City Planning.....	9
Total.....	198

Recommended for Degrees

October, 1946	
Bachelor of Architecture.....	3
Master of Architecture.....	1
February, 1947	
Bachelor of Architecture.....	7
Bachelor of Fine Arts.....	1
Master of Regional Planning.....	1
June, 1947	
Bachelor of Architecture.....	10
Bachelor of Fine Arts.....	1
Master of Fine Arts.....	1
Master of Regional Planning.....	3

SUMMER TERM

The College conducted an eleven-week summer term during the summer of 1946. A limited number of courses were offered. The registration for the summer term was 46.

ADMISSIONS

An unprecedented number of applications for admission in the fall of 1947 were reviewed by the Committee on Admissions. The ratio of applications to places available for new students was about seventeen to one. In the circumstances it was necessary to refuse admission to a great many fully qualified candidates.

One unit in Physics was added to the required subjects for entrance.

FACULTY

Dean Clarke continued on partial leave of absence throughout the year.

In June, 1947, Leroy P. Burnham, Professor of Architecture, retired after 33 years of service to the College and was elected Professor of Architecture, Emeritus, by the Board of Trustees.

Christian Midjo, Professor of Fine Arts, retired in June, 1947, after 38 years of service to the College and has been recommended to the Board of Trustees to be elected Professor of Fine Arts, Emeritus.

Olaf M. Brauner, Professor of Drawing and Painting, Emeritus, died at his home in Ithaca on January 4, 1947.

Four new appointments were made to the Faculty, effective at the beginning of the fall term.

Thomas H. Canfield was appointed Instructor in Architecture. Mr. Canfield earned his degree in Architecture at Ohio State University in 1939.

Santiago J. Agurto-Calvo was appointed Instructor in Architecture. Mr. Agurto was graduated in 1944 from the National Engineering School in Lima, Peru, and was awarded the degree of Master of Architecture at Cornell in 1946. Mr. Agurto resigned his position here, effective June 30, 1947, to return to Peru.

Eugene D. Sternberg was appointed Instructor in Regional Planning. Mr. Sternberg studied architecture in Czechoslovakia at the University of Prague and at the University of London, where he qualified for the Royal Institute of British Architects in 1943. He studied town planning under Sir Patrick Abercrombie and received the Diploma in Town Planning from the University of London in 1945. Before coming to Cornell he served as senior assistant architect to Sir Patrick Abercrombie in the preparation of redevelopment plans for London and other English cities. Mr. Sternberg resigned on June 30, 1947.

George F. Chisholm was appointed Instructor in Fine Arts. He is a graduate of Bowdoin College in the Class of 1936. Mr. Chisholm later studied at the Boston Museum of Fine Arts, at the Ecole des Beaux Arts, Fontainebleau, and at Harvard University.

Robert P. Lang, Instructor in Fine Arts, was appointed Secretary of the College, effective July 1, 1946. Mr. Lang also serves as Curator of the William P. Chapman, Jr., Print Collection, which was presented to the University during the past year.

A. Henry Detweiler, Associate Professor of Architecture, was awarded an Edward Langley Scholarship of the American Institute of Architects for study abroad. Mr. Detweiler was on sabbatical leave during the spring term and has been in England, studying the influence of changes in economic and social conditions on the development of architectural styles in England.

COUNCIL OF THE COLLEGE

Trustee Victor Butterfield, A.B. '27, A.M. '28, of Middletown, Connecticut, was elected to the College Council to fill the unexpired term of Trustee Albert R. Mann, B.S.A. '04. The other members of the Council are Nathaniel A. Owings, B.Arch. '27, of Chicago; Michael Rapuano, B.L.A. '27, of New York; Professor A. Duncan Seymour; Professor Hubert E. Baxter; and the Dean, *ex officio*.

FELLOWSHIPS

On May 13 the Faculty approved the first awards of the Robert James Eidlitz Fellowship since 1940. Under the terms of the fund, given by Mrs. Sadie B. Eidlitz in memory of her husband, Robert James Eidlitz, '85, exceptionally promising graduates of the College are offered the opportunity to supplement their professional training in advanced study and travel. During the war years the principal was allowed to accumulate so that more than one Fellowship might be granted when conditions permitted. The following awards were made:

Enslie O. Oglesby of San Angelo, Texas, B.Arch. '46, a grant of \$1,500 for nine months of advanced study at the Royal Institute in Stockholm and travel in Scandinavia and Italy.

David L. Eggers of Larchmont, New York, B.Arch. '47, a grant of \$1,500 for travel and the study of architecture and city planning in Scandinavia.

Santiago J. Agurto-Calvo of Lima, Peru, M.Arch. '46, an award of \$500 for travel and the study of housing projects in the United States.

LIBRARY

Current accessions have kept the Library abreast of the latest American and foreign publications in the fields of architecture, landscape architecture, fine arts, and city and regional planning. The growth of the book collection, which now numbers well over 11,000 volumes, has necessitated an expansion of stack space. Nearly a thousand lantern slides have been added in the past year, bringing our collection in that field to a total of over 43,000.

The city and regional planning collection was augmented by fifty recent planning reports of English cities.

A number of important gifts were received. Frederick William Field, '94, gave to the Library photographs and memorabilia of Charles Babcock. Walter D. Popham, '22, who has been serving as a captain with the Arts and Monuments Division of the Army of Occupation in Japan, sent an elaborately illustrated portfolio describing treasures at the Tennoji Shrine, Osaka. Leslie T. Kuo, M.R.P. '42, gave several valuable publications relating to city planning in Denmark.

Miss Barbara Hubbard, Librarian, resigned in January, 1947, to accept a position at the Mt. Holyoke College Library. Her place has been filled by the appointment of Miss Vivian Foltz. Miss Foltz is a graduate of Cornell and of the Western Reserve University Library School. She has had special training in the history of art and served as a Navy librarian during the war.

GILMORE D. CLARKE,
Dean of the College of Architecture.

APPENDIX VIII

REPORT OF THE DEAN OF THE COLLEGE OF ENGINEERING

To the President of the University:

SIR: I have the honor to present herewith a report upon the work of the College of Engineering for the academic year 1946-1947.

The College has returned to a peacetime schedule of two terms a year. With the release of large numbers of our former students who had not finished college before entering the services, the enrollment has exceeded any previous year in the history of the College. Seventy-eight per cent of the students were veterans. A relatively small freshman class was admitted because of the large number of veterans in the upper classes. A normal freshman admission in proportion to the number of students in the College will not be feasible before the fall of 1948. At that time it is hoped a normal freshman class may be admitted.

ENROLLMENT

The following table gives the enrollment of the schools of the College for the first term of each of the past eight years; also the freshman enrollment for the same periods:

School	FIRST TERM							
	1939	1940	1941	1942	1943	1944	1945	1946
C. E.	189	214	227	241	233	231	164	432
E. E.	195	202	193	222	301	367	246	569
M. E.	613	663	760	800	803	689	380	933
Chem. E.	242	277	337	353	310	170	83	438
E. Physics .....	...	...	...	...	...	...	...	17
Aero. E. (Grad).....	...	...	...	...	...	...	...	12
	1,239	1,356	1,517	1,616	1,647	1,457	873	2,401

FRESHMAN REGISTRATION

		FIRST TERM					
1939	1940	1941	1942	1943	1944	1945	1946
440	471	560	645	518	509	201	408

ADDITIONS TO THE CURRICULA

This year marks the beginning of the five-year curricula in all branches of engineering. All non-veterans entering as freshmen were required to enroll in a five-year program. Hereafter, all entering students will be required to pursue these curricula.

The year marked also the beginning of the five-year curriculum in engineering physics and the beginning of instruction in aeronautical engineering leading to the degree of Master of Aeronautical Engineering. The adoption of the five-year curricula in undergraduate courses in engineering has met with widespread approval. Two other universities, namely, Minnesota and Ohio State, have adopted programs of similar length but of somewhat different constitution. Splendid cooperation is being received from the College of Arts and Sciences upon which much of the course content falls, since the additional time involves the giving of non-technical courses in that College.

During the year the name of the School of Chemical Engineering has been changed to the School of Chemical and Metallurgical Engineering. A five-year curriculum in Metallurgical Engineering has been set up and will be inaugurated in the fall of 1947. Professor Charles C. Winding has been appointed Assistant Director for Chemical Engineering and Professor Peter E. Kyle has been appointed Assistant Director for Metallurgical Engineering.

ADDITIONS TO FACILITIES

In November 1946 the Navy Department transferred title in the Diesel Laboratory to Cornell University. The addition of this laboratory to the facilities of the College makes possible expanded instruction in internal combustion engines and additional courses in diesel engineering. It also makes available splendid facilities for research in this field.

A large number of machine tools have been acquired as surplus property. This acquisition makes possible the modernization of the shops in Rand Hall. Because of increased enrollment, it has been necessary to erect a temporary building near the toboggan slide on Forest Home Road in which some of the newly acquired machines will be placed. These facilities together with the splendid Gage Laboratory made possible through the loan of valuable equipment by the Rochester Ordnance District a year ago, greatly strengthens our work in production methods in mechanical engineering.

A temporary building is being erected on the Forest Home Road immediately back of Martha Van Rensselaer Hall which will be used by the Graduate School of Aeronautical Engineering and the School of Civil Engineering. This will make possible the transfer of the Graduate School of Aeronautical Engineering from the annex back of Franklin Hall and will make that building available to the School of Electrical Engineering for research and instruction.

A new temporary building is being erected on the East Hill Airport which will afford some 20,000 square feet of floor space for an Aeronautical Engine Laboratory for the Sibley School of Mechanical Engineering. A wide variety of reciprocating engines, both air and liquid cooled, and turbo-jet engines have been acquired and will be installed in this building. Two testing units for aircraft engines will also be installed in this building.

A large amount of new equipment for the School of Electrical Engineering has been acquired during the year, largely through a gift from the Phillips Foundation of a sum of money for this purpose. This new equipment was greatly needed in connection with instruction and research being carried on by the School. It has been indispensable in view of the increased enrollment.

PROGRAM OF INSTRUCTION AT BUFFALO

During the year graduate courses were given to members of the staff at the Cornell Aeronautical Laboratory by staff members from the campus at Ithaca. A program has been developed to be inaugurated in the summer of 1947 whereby graduate students in the School of Aeronautical Engineering will have the opportunity of working on research projects at the Cornell Aeronautical Laboratory thus broadening their educational program in this field.

RESEARCH IN THE COLLEGE

The College is engaged in carrying on a number of important projects in research. These projects are generally fundamental in nature and represent a wide

variety of problems, the work on which will greatly enhance the educational program of the College.

ADDITIONS TO STAFF

A number of important additions to the staff have been made during the year, the effect of which is greatly to strengthen the work of the College. We have been fortunate in attracting a number of men of unusual ability in their respective fields. The increase in enrollment therefore, has not been attended with the corresponding dilution of instructional standards, but rather it has been the occasion for reinforcement of all phases of our educational program.

S. C. HOLLISTER,
Dean of the College of Engineering.

APPENDIX IX

REPORT OF THE DEAN OF THE LAW SCHOOL

To the President of the University:

SIR: I have the honor to present the report of the Law School for the academic year 1946-1947.

It was to be expected that postwar conditions would make the past year a unique one in the life of the Law School. Between 1942 and 1945, law school enrollments throughout the country dwindled to all-time low figures. With the cessation of the war they rebounded to all-time highs. Because in 1943 students who were nearing the completion of their courses were allowed to finish before entering military service, and because we, among the first, had started an accelerated program in 1941, there were comparatively few upper-class students seeking to re-enter the Law School at the conclusion of the war. The great demand for admission was from students who wished to begin their law study. In line with the policy of the University and of other law schools, to save veterans from the loss of further time in getting established in their civilian careers, we admitted beginning students in October 1945 and in March, July, and September 1946. As a result, we now have to classify students according to academic terms rather than years, and, for a time, we shall be graduating classes three times a year. Commencing with the fall of 1946, it was decided to admit beginning students in September only, and it is our present intention to abandon the summer session after 1948 when those students admitted in the summer of 1946 will have had opportunity to complete an accelerated program.

The enrollment this past year was the largest in the School's history—347, composed of 320 regular law students, 26 Arts-Law students, one graduate, and one special student. The total might have been larger if the housing situation in Ithaca had not made it necessary for the University Administration to restrict the total University registration and, as a means to that end, to fix the limit of enrollment in each part of the University.

The peak of Law School registration will come in the next academic year. For 1947-1948 the Administration has consented to an enrollment figure of 375, a total needed to permit the addition of a new normal entering class to the number of advanced students who will be continuing with us in the fall. With a handful of Arts seniors also beginning their law study in September, the total body of students in the Law School will approach 380. Thereafter, the size of the School will begin to diminish for the large number graduating in March, June, and September 1948 will exceed the size of the next and succeeding entering classes which the faculty presently intends to limit to about 130.

The necessity for restricting enrollment in the face of the increased demand for admission has, of course, resulted in disappointment to those rejected. That the process of selection employed by the Law School for the past twenty years has produced a student body of good quality is shown by the relatively low loss for scholastic reasons among those admitted since the war. Of the total of 299 admitted

since September 1945, about 10 per cent have been dropped. The duration and experiences of war service added to the maturity of the present student body, the average age of which is 27. Of the 347, 140 are married. Our September 1946 enrollment was representative of 21 states, Puerto Rico, and Venezuela, and 93 colleges. The bulk of the students are from New York State and a little less than one-third from Cornell.

A comparison of total enrollment for the past eight years is as follows:

1939-40.....	208	1943-44.....	31
1940-41.....	192	1944-45.....	38
1941-42.....	163	1945-46.....	200*
1942-43.....	67	1946-47.....	347

*Represents Spring Term enrollment rather than Fall.

The substantial demand for acceleration was shown by the registration in the 1946 summer session. There were 190 students enrolled for the first half, and 193 students for the second half. The interest in acceleration has, however, fallen off and the program of the 1947 summer session has been pared to a minimum and planned for the benefit exclusively of those students who were already committed to acceleration.

The accommodation of the increased student body required very little adaptation of the physical plant. The seating capacity of the library reading room was increased with furniture already available except that some new desk lamps had to be bought. One classroom was enlarged by temporarily adding desks acquired from the Navy surplus at Cornell. The only other emergency expenditure was for forty additional lockers.

Some of the classes had to be larger than is consistent with our policy, but this condition was alleviated by dividing the two largest classes each into two sections.

Two members of the faculty gave a part of their time to conducting the course in business law given for students enrolled in the School of Business and Public Administration. The larger law school enrollment and the work of processing the volume of applications for admission has increased the administrative work and particularly the task of the faculty secretary. In spite of the increased demands upon faculty time, problem instruction of groups of 12 and 20 was revived but offered only on an elective basis for upper-class students. Next year, this type of training will be expanded and there will be a return to the prewar requirement that every third-year student shall take at least one problem course. This will be greatly facilitated by the addition of one new member to the law faculty, as authorized in the budget approved by the Board of Trustees last April.

Last fall a further experiment was made in the development of materials suitable for the much needed orientation of students beginning the study of law. Professors Freeman, MacDonald, Sutherland, and I collaborated in presenting these materials during the first week of the term before the usual first-year courses were begun. In September, 1947, two weeks instead of one will be devoted exclusively to orientation, this being equivalent to one hour for a term.

Another curricular change decided upon for the next year concentrates the following ten required foundation courses in the first-year program—Contracts, Torts, Criminal Law, Agency, Personal Property, Real Property I, Equity I, Constitutional Law, Administrative Law and Procedure I. Heretofore, these same courses consumed an aggregate of thirty-six hours so that students had to postpone at least two of them to the second year. By a judicious trimming of the material in most of these courses all of them can be fitted into a first-year schedule of fifteen hours a term and our students will then have an opportunity to elect more amply than heretofore from the upper-class offerings. These include such subjects of present-day importance as Taxation, Labor Law, Business Regulation, and advanced Administrative Law, as well as the traditional courses in Wills, Sales, Negotiable Instruments, Trusts, Corporations, Conflicts, etc., and such "luxury" courses as International Law, Admiralty, and Jurisprudence. It is confidently believed that the new first-year program will give the students initially a sounder introduction to law and then an adequate discipline in fundamentals, and will en-

able them to graduate with a wider horizon of knowledge derived from upper-class courses.

The last annual report referred to the growing importance of both producers' and consumers' cooperatives in the economic life of the country and the desirability of including in our curriculum a study of the Law of Cooperatives. Within the year, the realization of this proposal has been furthered by two events. Mr. Sherman Peer, LL.B. '06, who for many years has been general counsel of the Grange League Federation Exchange, with headquarters in Ithaca, and who has a national reputation in this branch of law, was appointed Professor of Law and will offer as a part of the 1947 summer session program a course in the Law of Cooperatives. A scholarship available to a law student who has an agricultural background and who is a potential specialist in the field of farmer-producer cooperative law, was given to the University by Mr. and Mrs. Thomas E. Milliman in memory of their son, Ensign Leonard T. Milliman, U.S.N.

With the School once again upon a normal basis, the student associations were revitalized during the past academic year and took an active part in extra-curricular activities of professional interest. The Phi Delta Phi legal fraternity brought the Honorable Raymond S. Wilkins, Justice of the Supreme Judicial Court of Massachusetts, as the Frank Irvine Lecturer. The newly organized society known as Rota sponsored a discussion of labor problems by Mrs. Elinore Morehouse Herrick, labor relations expert for the shipbuilding industry during the war and now labor editor of the New York *Herald Tribune*. The Phi Alpha Delta fraternity organized a series of talks on the administration of criminal justice by Judge Samuel Leibowitz, LL.B. '15, speaking for the point of view of counsel for the defense, Judge Benvenga, for the office of the prosecutor in New York County, Mr. Henry Koch, as district attorney in a rural county, and Judge Jacob Gould Schurman, A.B. '17, speaking for the viewpoint of a judge in a criminal trial.

During the winter, members of the faculty presented panel discussions of two issues of current public interest. In December, Professors MacDonald, Sutherland, and I participated in a discussion of the Government's application for an injunction against John L. Lewis and the United Mine Workers Union when that question was before District Judge Goldsborough for decision. In January, Professors Keffe, MacDonald, Sutherland, and Willcox conducted a similar discussion of "portal-to-portal pay" which had just aroused the interest of the new Congress. On both occasions, the Moot Court Room was filled to capacity with students from the Law School, the Business School, and the School of Industrial and Labor Relations.

By action taken by the Board of Trustees at its meeting in October 1946, law school tuition was raised from \$400 to \$450, effective July 1, 1947. The law faculty had opposed the initial proposal to raise the tuition to \$500 simultaneously with a similar increase for all undergraduate students in the endowed colleges. Before entering law school, law students have already invested in the required pre-legal education, the cost of which, with increased tuition and fees and living expense, can be estimated at a minimum of \$1,400 a year. There are, therefore, social implications in a proposal to increase the tuition of post-graduate professional education. The cost should not be put beyond the reach of capable but financially handicapped young men and women. In prewar days, our funds for scholarship and loan assistance were insufficient to meet recognized student needs. At the moment, when financial assistance is available under the G. I. Bill, the tuition figure is not of so much importance to the individual student, but, as the benefits of that Bill expire, the total cost of education for a profession will again be a critical factor for young people. Tuition of \$450 together with the annual fees of \$50 put Cornell second highest in cost among American Law Schools and higher than any other in New York State. Even at that scale, our available scholarship aid will have to be augmented as G. I. assistance tapers. Since professional education has steadily advanced toward a post-graduate status, it would seem timely to propose that the state should make provision for graduate, as well as undergraduate, tuition scholarships.

After a too long delay, the proposal to establish a memorial to the late Dean Edwin H. Woodruff, in the form of a law professorship to bear his name, was sanctioned and, at this writing, has attracted gifts totalling about \$20,000, to which

has been added by action of the Trustees, the \$3,000 left to the University by Woodruff himself. The thousands of students who were taught by Woodruff between 1896 and 1927 will want to participate, to the extent of their ability, in the establishment of this tribute to him. However, the regulations of the Alumni Fund Council have forestalled solicitation of more than a handful of them. The justification for this is that the function of the Council is to secure annual contributions to the unrestricted funds of the University. Therefore, it is argued, there should be no effort to obtain gifts for a restricted purpose which would compete with unrestricted annual contributions. As applied to the Woodruff Professorship, there are, I believe, at least two fallacies in this argument. In the first place, the admiration and affection which Woodruff's students had for him is such as to motivate gifts in his honor and for this Law School purpose that would not be forthcoming as annual unrestricted contributions. In the second place, a Woodruff Professorship would not realistically compete with the use of unrestricted funds. To the extent that the income from such a professorship would pay a salary, it would relieve the drain upon unrestricted income and free that amount for another University purpose. I submit that the objects of the Council and the regulations protecting its endeavors should be flexible enough to encourage, and not hinder, a project such as this one. There is no real inconsistency between the purpose of the Woodruff Professorship and the fundamental purpose of the Council. If some alumni who have been annual contributors temporarily earmark their gifts for the Woodruff Professorship, there will be other alumni who, as a tribute to Woodruff, will give in excess of any previous regular contributions. The funds available to the University, even for unrestricted purposes, would be increased, not diminished. The Council should be in a position to join in sponsoring this project which has such a special appeal to so many alumni, and should receive credit for the successful establishment of a Woodruff Professorship of Law.

The affiliation of the alumni of a graduate school with that school must not be ignored. If they receive their A.B. degrees from other institutions, their only interest in Cornell is because of their attendance here as graduate students. Even if they received their first degree at Cornell, it is not unusual for them to have a predominant interest in the school of their profession. Two illustrations may be cited. For several years, some fifty law alumni, all members of the same Law School Club and most of them graduates of the College of Arts and Sciences at Cornell, have without solicitation contributed a law student scholarship in honor of the late Dean Burdick. The aggregate of these contributions for the past two years is \$1,500. Though initially earmarked for a Law School purpose, this becomes a part of the unrestricted income of the University when once applied in payment of a law student's tuition. During the past spring, a dozen alumni, graduates of the Law School between 1931 and 1935, had the inspiration to make monthly payments for a year to a fund to be used by the Law School in the discretion of the dean. About one-half of this group received their pre-legal education at Cornell and the other half at other universities. It has been my practice to report to the office of the Council the receipt of such contributions as these, but it is my understanding that class funds are not credited with these alumni gifts because of the fact that their first use is restricted.

ACTIVITIES OF THE FACULTY

The following summarizes some of the activities of the Faculty during the past year:

Professor Laube's Cases and Materials on the Law of Decedent's Estates was published. Professor Larson and I revised and completed our Cases and Materials on the Law of Business Corporations which had originally been prepared by Professor Washington and me and has been used at Cornell in mimeographed form since 1940. The revised edition is being published by the West Publishing Company and will be ready for use in September, 1947. Professor Thompson continued work on his Cases and Materials on the Law of Contracts, and Professor Farnham on his Cases and Materials on the Law of Real Property.

Professor Larson was the author of a chapter entitled "The Northern Countries" in "Towards World Prosperity", a symposium on postwar trade and economic problems edited by Mordecai Ezekiel and published by Harpers in March. Profes-

Willcox was co-author with Mr. Stanley Levy of an article in the June Cornell Law Quarterly on "Run-off Elections under the Wagner Act." In the November issue of the Quarterly, appeared "The Octroi and the Airplane," a study in plural taxation of interstate commerce by Professor Sutherland. Professor Keeffe had two articles in the Cornell Law Quarterly, one with Messrs. Brooks and Greer on the Rule Making Power of the New York Court of Appeals, and one with Mr. Roscia entitled "Immunity and Sentimentality". He also published in the Tulane Law Review in collaboration with Mr. Dykes, "The 1940 Amendment to the Diversity of Citizenship Clauses." Professor Freeman published articles as follows: "Public Utility Depreciation," September Cornell Law Quarterly; "A Study in Corporate Tax Avoidance" (with Lewis Kirschner), November Columbia Law Review, and "Public Utility Taxation," February Journal of Land and Public Utility Economics. He also wrote, with Professor Paullin of Swarthmore, a book entitled "A Study in International Functional Organization," and a chapter on Public Utilities for Ballantine's Questions and Answers in Law.

The following book reviews have appeared:

Professor Freeman—"United Nations Government", by Amos Peaslee, September Cornell Law Quarterly; "1942-1944 Annual Surveys of American Law" (3 vols.), November Cornell Law Quarterly; "An International Bill of Rights," by H. Lauterpacht, November Fordham Law Review; "Handbook of International Organization in the Americas," by Ruth D. Masters, November Fordham Law Review; "Joseph McKenna, Associate Justice of the United States," by Matthew McDewitt, June Brooklyn Law Review, and "Agenda of Progressive Taxation," by William Vickrey, Cornell June Law Quarterly.

Professor Larson—"Directors and Their Functions," by John Calhoun Baker, Cornell Law Quarterly.

Professor Laube—"Fate and Freedom", by Jerome Frank, November Cornell Law Quarterly, and "Interpretations of Modern Legal Philosophies," essays by various authors in honor of Roscoe Pound, in the June Harvard Law Review.

Professor Sutherland—"Touched with Fire," the Civil War letters and diary of Justice Holmes, and "The Design of Democracy," by G. W. Goebels, both in the Cornell Law Quarterly.

Professor Thompson—"Pollock on Contracts," 12th Ed. by P. W. Winfield, in June Cornell Law Quarterly.

Professor Willcox—"Government and Labor in Early America," by Richard B. Morris, "Arbitration in Labor Disputes," by Updegraff and McCoy, and "Labor Unions and Municipal Employee Law," by Charles S. Rhyne, all in the Cornell Law Quarterly, and "A Labor Policy for America: a National Labor Code," by Ludwig Teller, in the March American Economic Review.

During the year, Professor Willcox was appointed a member of the faculty of the School of Industrial and Labor Relations, in addition to his duties on the Law Faculty, and became a member of the editorial board of the "Industrial and Labor Relations Review," the first issue of which will appear in October 1947. In February, he served as the public's member of a forum on labor relations and legislation, sponsored by Colgate University at Hamilton, N. Y., and in June participated in the Association of American Law Schools conference on the training of law students in labor relations and was made a member of an eight-man council to develop and report on that subject.

Professor Thompson addressed the Broome County Bar Association in Binghamton in the fall. As Acting Reporter on the Restatement of the Law of Contracts, he appeared before the Executive Committee, the Council, and the General Meeting of the American Law Institute in Washington in June.

As research consultant for the New York State Law Revision Commission, of which Professor MacDonald is executive secretary, Professor Sutherland prepared a study and drafted a proposed statute to revise the New York law relating to the assignment of wages by workmen. He delivered a series of lectures to the senior R.O.T.C. at Cornell on the Government of Occupied Territories. During the year, Professor Sutherland was given an Oak Leaf Cluster in lieu of a second award of the Legion of Merit for services as executive officer of the G-5 section of the Fifth Army in the North Italian Campaign.

Professor Keeffe, who had been appointed President of the Navy's General

Court Martial Sentence Review Board, conducted the investigation of over 2,000 cases and prepared and presented to the Secretary of the Navy the Board's findings and recommendations. The report served as the principal basis of the bill drafted by the Navy Department for the Armed Services Committee of Congress.

ROBERT S. STEVENS,
Dean of the Law School.

APPENDIX X

REPORT OF THE DEAN OF THE MEDICAL COLLEGE

To the President of the University:

SIR: I have the honor of presenting the following report of the Medical College for the academic year ended June 30, 1947.

For the first time since 1941, the return of students to formal class work was initiated by holding our customary opening exercises on September 26, 1946, at which time Professor Eugene F. Du Bois gave the address of welcome. The enrollment of three hundred twenty slightly exceeded previous enrollment figures and was distributed as follows: First year, 85; second year, 71; third year, 81; and fourth year, 83. The members of the first and second year classes were starting a new academic year, while the third and fourth years were still under a partially accelerated program in which they picked up the work they had begun in April and had been interrupted by a summer vacation.

On March 28, 1947, a commencement was held at which 82 fourth year students were awarded the Doctor of Medicine degree. Because of illness, one student was unable to complete the prescribed course to graduate with his classmates but he was awarded the degree in June. Dr. William McCann, Professor of Medicine at the University of Rochester School of Medicine and Dentistry, who received his M.D. at Cornell in 1915, gave the commencement address.

From the time of commencement to June 19, 1947, there were three classes in attendance here. We will hold another commencement on March 26, 1948, and then in the fall of 1948, all classes will be on the normal schedule.

CHANGES IN STAFF

Dr. George J. Heuer, Lewis Atterbury Stimson Professor of Surgery, became Professor of Surgery, Emeritus, at the end of the present academic year. Dr. Heuer came to Cornell in 1931 and has developed an outstanding training in surgery in our institution.

Dr. Eugene H. Pool was appointed Professor of Clinical Surgery, Emeritus, at the end of the present academic year. For many years he has been a member of the staff of the New York Hospital, and when we opened in our present buildings in 1932, he joined our academic staff at Cornell.

We regret to report the death of John C. Torrey on October 7, 1946. He joined our staff in 1904, for many years was head of our Department of Public Health and Preventive Medicine and retired in 1941 with the title of Professor Emeritus. From that time, he conducted research here at the College until shortly before his passing.

It is with regret that we report the death of Henry H. M. Lyle on March 11, 1947. He joined our staff in 1919 and in 1932 was made Professor of Clinical Surgery, an appointment he held until the time of his passing.

Dr. Herbert M. Bergamini, Assistant Professor of Clinical Surgery, resigned as of January 10, 1947, because he was leaving the city to enter practice elsewhere.

Dr. William H. Chambers, Associate Professor of Physiology, resigned as of March 15, 1947, in order to accept a position with the Army Chemical Corps, Edgewood Arsenal, Maryland.

Dr. Andrew A. Marchetti, Associate Professor of Obstetrics and Gynecology, resigned as of June 30, 1947, in order to accept the Professorship and headship of Obstetrics and Gynecology at Georgetown University School of Medicine, Washington, D. C.

Dr. Jacob Furth, Professor of Pathology, resigned as of June 30, 1947, in order to accept an appointment as Professor of Pathology at Southwestern Medical College, Dallas, Texas.

Dr. Jose F. Nonidez, Professor of Anatomy, resigned as of June 30, 1947 to accept the Professorship and Headship of the Department of Microscopic Anatomy in the School of Medicine of the University of Georgia at Augusta, Georgia.

Dr. William H. Summerson, Associate Professor of Biochemistry, resigned as of June 30, 1947, in order to become the Chief of the Biochemical Section, Toxicology Branch of the Medical Division at Edgewood Arsenal, Maryland.

Dr. Curtis Flory, Assistant Professor of Pathology was granted a leave of absence starting on April 15, 1947, in order to go to the Institute of Pathology at the University of Zurich, Switzerland on an exchange with Dr. Max Aufermaur who will come to our institution during the coming academic year.

Dr. Morton Kahn, Associate Professor of Public Health and Preventive Medicine, was granted a leave of absence of four months starting in May, 1947, in order that he might carry out field trials on mosquito control in West Africa.

On July 1, 1947, Dr. Frank Glenn succeeded Dr. George J. Heuer as Lewis Atterbury Stimson Professor of Surgery in the Cornell University Medical College and Surgeon-in-Chief of the New York Hospital. From March 10, 1947, he has served as Acting Professor of Surgery and Acting Surgeon-in-Chief.

On September 1, 1946, Dr. Gustave J. Noback was appointed Associate Professor of Anatomy.

On February 1, 1947, Dr. Emerson Day was appointed Assistant Professor of Public Health and Preventive Medicine.

On September 1, 1946, Major Lawrence W. Hanlon, M.C. became Commandant of the Medical R.O.T.C. Unit here at the Medical College.

On July 1, 1947, Dr. Alexander Brunschwig was appointed Professor of Clinical Surgery. He has resigned his appointment as Professor of Surgery at the University of Chicago to come to take over one of the surgical services at the Memorial Hospital.

Dr. Frederick L. Liebolt, Associate Professor of Clinical Surgery (Orthopedics) has been made head of the subdepartment of Orthopedics in the Department of Surgery.

Dr. James A. Moore, Assistant Professor of Clinical Surgery (Otolaryngology) has been made head of the sub-department of Otolaryngology beginning July 1, 1947.

Among the promotions in rank made to deserving members of our staff to take effect July 1, 1947, mention should be made of three. Dr. Harry Gold becomes Professor of Clinical Pharmacology; Dr. George N. Papanicolaou, Professor of Clinical Anatomy; and Dr. William DeW. Andrus, Professor of Clinical Surgery.

STUDENT BODY

The class of 1950 which entered in September, 1946, was made up of eighty-five students whose average age was older than that of most entering classes. There were eleven women from seven different colleges, one of whom had been an Army nurse in an evacuation hospital in the European theatre. Of the men, fifty-two were in uniform during the war and the majority had seen active service in the foreign theatres in many different capacities. In breadth of experience and in level of maturity, this class rated higher than our previous ones. It is a pleasure to report that the showing at the end of the first year corroborated our estimated judgment.

The class of 1949, which numbered seventy-one, contained two transfers, one from the University of Colorado School of Medicine and one from the North Dakota School of Medicine, and two veterans who returned to resume their work after interruption with military duty. Two of this class were dropped at the end of the academic year.

The class of March, 1948, now numbers seventy-nine and will complete the course three months in advance of the start of their internships. This period of three months is utilized in a variety of ways, many students work in hospitals, some take special work in the preclinical departments, some participate in research, and still others take a vacation. It provides a time when review and preparation can be made for the various board examinations.

In the selection of the class which is to enter in September of 1947, the Committee on Admissions had a task very much more difficult than in any previous year. In this connection mention may be made of two elements that have a special bearing. The first relates to the examination of the educational background of the applicants. A large number of those who have made application for this class had their college training broken up by reason of the war. The records of course-work, therefore, show a few subjects taken in one place, some in another college and so on. This diversity of training has made it extremely difficult in a great many instances to obtain a set standard for estimating student ability. Another problem frequently encountered in evaluating the training of these students whose education was interrupted by military service has been those instances in which a greatly improved record has been made by the student since returning to college. It has not been possible to apply any set formula to these questions, but in each instance the decision of acceptability has had to rest mainly on a judgment of the over-all qualifications of the individual in comparison with others in the group of applicants.

It should be stated that in the consideration of most of the class, the Committee did not have available the scores made in the Professional Aptitude Examinations administered by the Graduate Record Office for a Committee on Student Personnel Practices of the Association of American Medical Colleges. These scores were not available until after most of our decisions had been made.

In any previous year, the largest number of applications received was under 1,500, but this year we received a grand total of 2,284. In the group of applicants there are representatives of colleges in practically every state as well as some foreign countries. As in previous years, a few institutions have contributed a large segment of those seeking admission.

The Committee has given every consideration to applicants who served in the Armed Forces and necessarily interrupted their educational programs. Accordingly, all except seven of the seventy-four men in the incoming class roll rate as veterans and a considerable number of these young men saw service outside the country. The incoming class list at present shows eighty-two students with two additional places reserved for the expected return of former members of the present first-year class who by reason of sickness had to drop out early in their course. The seventy-four men come from thirty-five colleges and the eight women from six different colleges making a total of forty-one different institutions represented in the class. The largest number from any institution is from Cornell University with a total of twenty-three.

For advanced standing in the third-year class, twenty-two applications have been received of which six students have been accepted from four medical schools. In recent years a considerable number of acceptable candidates have applied from the two-year schools. The trend for a number of these two-year schools to extend their offering to a four-year course will reduce the number of those who will apply to us in the future. Alabama has already made the transition and North Carolina has plans definitely under way.

With the increase in tuition rate from \$600 to \$700 beginning this next academic year, we anticipate financial hardships among our student body. The G. I. Bill of Rights provides for a tuition of \$500 but the entitlement of many of our students does not provide for the full four years. We have available in our various loan funds \$58,172.46.

Twenty-three students will be awarded scholarships during the next academic year, of which nine are for \$200 or under. The total amount in scholarship aid for next year is about \$8,500. We anticipate that additional funds will be available for the endowment of Heim Scholarships in the near future. However, we need far more endowment for scholarships than will be available even after this addition. It is a pleasure to announce the establishment by one of our loyal faculty members, Dr. Elise S. L'Esperance, of the Elise Strang L'Esperance Scholarship. This scholarship in the amount of \$1000 a year is to be awarded annually to the most deserving woman medical student in Cornell to be nominated by the Dean.

STUDENT HEALTH

The Medical Student Health Service has been carried out, as in the previous year, largely by Dr. Henry Cromwell. This service is one branch of the Health

Service for the entire institution which is operated with Dr. Ralph Tompsett as Director. The statistical data for the Medical Student Health Service is as follows:

Total number of Clinic Visits (exclusive of routine examinations and immunizations).....	1014
Routine physical examinations.....	164
Routine chest x-rays.....	827
Consultations.....	201
Hospitalizations	
Number of students hospitalized.....	33
Total hospitalizations.....	34
Days of hospitalization.....	334

These figures do not include one admission to Payne Whitney Clinic. (93 days thus far). Included in the total is one hospitalization of 76 days. Four students were required to withdraw from school because of illness. Three of these were in the first-year class. It will be noted that there is an apparent decrease in the total number of hospitalizations, although the decrease is probably not significant because in the present year, only a few students worked here during the summer.

The routine physical examinations of the first-year and fourth-year students were completed with the aid of members of the medical house-staff. This procedure has appeared advisable in order that sufficient time be available for each examination. Also, were this to be done in the regular clinic hour, it would seriously compromise the care of individuals who come to the clinic because of some illness.

Beginning with this year's first-year class, the policy has been established of doing all immunizations in this department. All of this class had immunizations against small-pox, typhoid, and tetanus, and the Schick-positive ones received diphtheria toxoid. It is planned to continue this policy with each incoming class. This year, influenza vaccine was made available to the students but it was not considered advisable that they be required to take it. The question of using BCG vaccine against tuberculosis is being considered.

All students had routine photoroentgenograms of the chest in the beginning, in the middle, and at the end of the school year. One new case of tuberculosis was discovered in the first x-ray of a member of the first-year class. There were no other new cases of tuberculosis.

Since April, 1947, there has been available the services of a special dental clinic which has hours from 6 to 8 P. M. two days a week. Thus far, relatively few students have used this service and it may prove inadvisable to continue it next year.

WORK OF THE DEPARTMENTS

ANATOMY

The teaching in this department as carried on by the regular staff members has been implemented by nine fellows who have worked for a part or a whole year. Most of these men plan to go on in surgical training and have gained valuable experience in training for their specialty. In the appointment of Dr. Gustave J. Noback as Associate Professor of Anatomy, the department has added an experienced anatomist whose main interest is in growth and development as it takes place in late fetal and infant life.

After twenty-seven years in the department, Professor Jose F. Nonidez has resigned to become Professor of Microscopic Anatomy at the University of Georgia. He has made outstanding contributions to the knowledge of the histology of the nervous system, particularly the receptors in the cardiovascular system. He has been in charge of the course in Histology and Embryology in this department for many years.

During the past year, Professor Morrill has been working on the fifth and last part of his Regional Anatomy. As an outgrowth of his long experience in the teaching of Gross Anatomy, he has presented the anatomy of the different parts of the body on a regional basis in a form that is concise and of great value in the orientation of the student in his dissection and study.

Professor Papanicolaou in collaboration with Dr. Marchetti of the Department of Obstetrics and Gynecology and Dr. Herbert F. Traut of the University of California, has completed and has in press another monograph on the correlation of vaginal and endometrial smears with the histology of the female reproductive tract. This will be published by the Commonwealth Fund which has generously supported this work for several years. His work on the application of cytologic study of body fluids in the diagnosis of cancer has continued to attract recognition and interest from many quarters and he has been in great demand for lectures over the country. He has given some fifteen during this year. The United States Public Health Service has expressed a desire to establish a training center in this department for members of their own staff and two of their officers have been assigned for work here. Foreign workers have continued to come to this laboratory for training. Dr. Papanicolaou will give a special two weeks' course on the cytology of body fluids and its applications in cancer diagnosis next September.

The work in Professor MacLeod's laboratory dealing with the metabolism and motility of human spermatozoa has progressed satisfactorily. Papers on the phosphatase activity of human spermatozoa and on sulfadiazine and its effect on spermatogenesis and its excretion in the ejaculate have appeared. Professor MacLeod is presenting a paper at the International Physiological Congress at Oxford, England, this summer. He has had two Cornell graduates working as fellows in his laboratory during the past year and has given special training to a number of visitors from abroad and different laboratories in this country.

In the neurological laboratory, Professors Hinsey, Geohegan, and Berry have been assisted by four Cornell graduates during the year. The work has centered on oscillographic tracing of main sensory pathways in the brain stem and on the continued study of functional reorganization in sympathetic ganglia following preganglionectomy. Dr. Geohegan has nearly completed the development of a small compact oscillograph which can be used at the bedside for electromyographic recordings, using the A-C house current as the power supply.

The department has continued to provide material for dissection for the third and fourth year medical students and for members of the New York Hospital house staff as well as those at the Memorial Hospital, and for alumni and physicians from other institutions. Dr. E. W. Lampe has held weekly sessions in Surgical Anatomy for members of our house staff and has given the course in Surgical Anatomy to third-year medical students. A three-week course in Surgical Anatomy will be conducted in September, 1947, by Dr. Lampe for surgeons preparing for the American Board of Surgery. Two Cornell Medical graduates, Drs. John Norris and Warren Eberhart, are coming into the department for full-time work next year. The supervision of the course in Histology and Embryology will be taken over by Dr. Hinsey with Dr. Berry assuming the main portion of the teaching load, assisted by Drs. Papanicolaou, MacLeod, and Eberhart. The work of the department was supported by grants from the Commonwealth Fund, the Grayson Foundation, Mr. C. V. Whitney, and other private donors.

BACTERIOLOGY AND IMMUNOLOGY

The teaching program comprised the course given to the medical students in the third term of the first year and the first term of the second year, and the course given to student nurses. Two recent graduates of the Medical College, Dr. Robert Healy and Dr. Robert Fath, assisted in the classroom laboratory teaching and both of them contributed much to the success of the course. The department recommends that it would be desirable if some of the clinical departments would assign one or more of their interns for a part of the fall term for work in Bacteriology. It would give these physicians a better background for an understanding of infectious diseases and at the same time would add considerably to the teaching. Two veterans are majoring in the department as graduate students.

Research activities were in four general fields: 1) influenza and other viruses; 2) bacterial and enzymatic syntheses of polysaccharides; 3) immunological properties of dextrans and levans; 4) immunological aspects of Fungi.

I. Influenza and other viruses. Studies are being continued by Drs. Magill and Sugg into the nature of the differences between related strains of influenza virus,

and the role of as large a number of different strains in the immunology and epidemiology of influenza. Work now in progress is directed toward determining whether a large number of different but stable strains of influenza virus exist, or whether the influenza virus is a relatively unstable agent that may be altered readily by the peculiar immunological status of its host. Studies also are being made of mumps and of the virus of mumps; and on the mechanism of hemo-agglutination by influenza virus and by mumps virus, in the expectation that an elucidation of the mechanism may lead to the adaptation of the test to studies of other viruses.

At the request of the Army Epidemiological Board, Dr. Magill is continuing to use his laboratories as the Strain Study Center of the Influenza Commission, U. S. Army Epidemiological Board. The stated purposes of the Strain Study Center are: a) to study the breadth of the immunizing range of the respective strains; b) to investigate the immunogenic potencies of strains; c) to search for sharp antigenic differences in strains, in respect both to serological and to immunizing capacities.

These studies are being supported by a grant from the Markle Foundation and one from the Office of the Surgeon General, War Department.

II. Polysaccharide synthesis. The studies on bacterial and enzymatic synthesis of polysaccharides were carried out by Dr. Hehre and Mrs. Hamilton. Dr. Hehre's work in this field has attracted the favorable attention of biological chemists as well as of microbiologists, and has been extensively quoted in several general review articles. The aspect which received particular attention during the past year was based upon Dr. Hehre's discovery that a glycogen, or amylopectin-like polysaccharide, can be synthesized through the action upon sucrose by certain *Neisseria* bacteria. The conversion of sucrose to the amylopectin-like polysaccharide differs from previously reported examples of starch and glycogen syntheses in that it is accomplished without the participation of glucose-1-phosphate as an intermediate substance and has significant implications in various fields of biology and general physiology. These studies are being supported by the Sugar Research Foundation.

III. Dextrans and Levans. The immunological studies on various representatives of these two classes of bacterial polysaccharides represents a continuation of the studies made in this department over the past four years. The new knowledge obtained consisted of information on additional bacterial antisera (particularly typhoid and certain *Salmonella*) which react with some bacterial dextrans and of information on the serological properties of additional dextrans not hitherto investigated. One of the new products included was the dextran produced in Sweden which has been proposed for use as a plasma substitute. This product proved to have definite serological properties, which theoretically would seem to make it undesirable for indiscriminate use, and which may account for the reactions obtained in some individuals who have received it in its experimental use in some American hospitals. The possibility that the majority of humans possess antibodies reactive with dextrans is suggested by experiments now being made in the capacity of human serum to agglutinate suspensions of dextran-forming bacteria obtained from sucrose grown cultures. These studies are supported by a grant from the Sugar Research Foundation.

IV. Fungi. The studies on immunological properties of *Sporotrichum* and their Fungi have been continued, although at a slow pace due to lack of technical assistance. A grant from the U. S. Public Health Service has been obtained and will accelerate the work in this field during the coming year.

BIOCHEMISTRY

The teaching program has continued to develop and grow, consistent with the principles outlined in previous reports. A constant effort is being made to keep the students abreast of new developments and advances in the field of biochemistry as well as integrating them with the older work. Many inquiries have been received from other institutions as to the mechanism and details of the course for our medical students.

One graduate student completed the work for the Ph. D. degree in June, 1947, and there are four others who are continuing work for this degree. Dr. Mildred Cohn resigned early in the academic year to accept a research post at Washington University in St. Louis. Dr. William Summerson resigned as of June 30, 1947, to

assume new duties as Chief of the Biochemical Section, Toxicology Branch, Medical Division, Army Chemical Center, Edgewood, Maryland. Dr. Chin Chang is now engaged in research work in the Department of Chemistry, University of Michigan, Ann Arbor. New personnel includes Dr. Dorothy Genghof, formerly a member of the Department of Bacteriology; Dr. Helena Gilder (Cornell '40); Dr. Cosmo G. Mackenzie, formerly of the staff of Johns Hopkins Medical School; Drs. Gardner W. Stacy and Lester J. Reed, both of whom received their Ph.D. degrees from the University of Illinois; and Miss Nancy Cross, formerly of the teaching staff of the University of Chicago. Dr. James H. Baxter, Welch Fellow in Internal Medicine, will complete his fellowship at Cornell in September. Dr. Doriano Cavallini from the University of Rome will continue his fellowship from the Institute of International Education for another six months.

The researches have again assumed peace-time proportions. Studies on the nature and structure of penicillin are continuing with efforts being directed toward the elucidation of the mechanism of the synthesis of penicillin from the reaction of oxazolone and penicillamine hydrochloride. Investigations on the possibility of synthesizing new penicillins for biological studies are being continued. Full-time studies have been resumed an intermediary metabolism, a field in which some extremely interesting results have been obtained. Research studies on cancer metabolism, aided by a grant from the American Cancer Society, have been continued. This project has been concerned with fundamental studies on the various factors which influence the metabolic characteristics of the particular type of tumor cell selected for study, the Gardner mouse lymphosarcoma. As a parallel to the work on tumor cell metabolism, a similar study on the metabolism of normal bone marrow cells is underway. Of chief interest in the continuance of the work on the metabolism of the liver tissue has been the metabolic fate of amino acids in the liver, with particular reference to histidine and lysine.

During the year, 15 publications have appeared from the department. Particular mention should be made of the one on "Synthetic Penicillin" by Drs. du Vigneaud, Carpenter, Holley, Livermore, and Rachele which attracted international attention and the book on "Practical Physiological Chemistry" of which Dr. Summerson was co-author with Drs. P. B. Hawk and B. L. Oser. Professor du Vigneaud gave fourteen lectures at different institutions over the country, one of which was by invitation before the joint session of the American Societies for Experimental Biology at Chicago. During this summer he has been invited to give a series of lectures at universities in Switzerland and before an International Congress on Chemistry in England.

The work in this department has been supported by grants from the American Cyanamid Company and the American Cancer Society.

THE LIBRARY

With a much reduced staff, Mrs. Josephine Nichols, our Librarian, and her staff have cared for 25,477 readers of whom 7,333 borrowed for home use a total of 10,732 volumes. This was done with very few losses. Our library numbers over 38,000 volumes of good material, not counting many duplicate volumes of older texts. This year, we have added 671 volumes, of which 375 are newly bound journals, 89 new purchases, 207 gifts or exchanges. Many journals dating from 1940 have arrived and have been bound as rapidly as possible. These are mainly from the Scandinavian countries, France, Belgium, Holland, and Switzerland. Exchange work has been active. The Medical Library Exchange is functioning promptly and we receive many unusual items this way.

The duplicates which we have been collecting for some years to rehabilitate foreign libraries are now moving rapidly. In addition to large lots previously reported and with the help of generous contributions of volumes from Drs. W. S. Ladd, William Summerson, and David Barr, the following institutions have been sent material; Medical Faculty, Breslau, Poland; American Committee for Mass Education Movement in China; National Wu Han University, Wu Chang, China; Shantung Medical School; American Book Center, Washington, D. C., for distribution in various lands. We are grateful to the members of the Faculty who have been generous in their contributions.

Inter-library loans have been made to eighteen libraries; we have borrowed from four libraries. We have continued our cordial relations with the Rockefeller Institute in this matter.

Mrs. Nichols has given the regular course to first-year students. She represented the College at the Library Symposium of the New York Academy of Medicine Centenary and also at the Cleveland meetings in May of the American Association for the History of Medicine and the Medical Library Association.

MEDICINE

The plan for the teaching of undergraduate students has not been materially altered during the past academic year. Dr. Robert F. Watson has replaced Dr. Thomas P. Almy as director of the course for the third-year students. As before, he has had the help of tutors for small sections of the students assigned to medicine. Dr. Reznikoff, formerly in charge of student instruction in the outpatient department, has withdrawn to assume responsibility for the work of residents and interns on the private pavilions. Dr. Connie Guion is supervising the work of senior students with the help of Dr. William Grace whose entire time has been devoted to this work.

During 1946-1947, thirty-one members of the house staff and twelve research fellows had the opportunity of training in this department. For the benefit of this large group as well as for other purposes, a number of conferences in general medicine and the medical specialties have been held each week. These conferences not only offer continuous stimulation and instruction over widely diversified fields of internal medicine, but also furnish a forum and a training in presentation for the younger members of the department who take an active part in their conduct. The grand rounds on Thursday morning perform an additional function as an assembly for members of the large staff. They now have a weekly attendance which varies from one hundred twenty-five to one hundred forty.

The postgraduate training at Bellevue Hospital under the direction of Dr. John E. Deitrick has developed satisfactorily since its start in April, 1946. Three refresher courses have been conducted and instruction has been maintained for seventy-five postgraduate students who have attended in units of twenty-five for a six months' period. They have been drawn from the ranks of returning veterans. The urgent need for this type of instruction has already been demonstrated for in the multitude of postgraduate and refresher courses offered in this country, there are relatively few which provide to postgraduate students the opportunity for daily contacts with patients.

During the year, three important additions were made to the senior staff. They were: Dr. Richard H. Freyberg, an authority on the subject of arthritis, who was formerly Assistant Professor of Medicine and Director of the Rackham Arthritis Unit at the University of Michigan; Dr. Robert F. Watson, who was formerly Resident Physician at the New York Hospital and later an Associate on the scientific staff of the Rockefeller Institute for Medical Research; and Dr. Irving S. Wright, formerly Director of the Department of Medicine at New York Postgraduate Hospital, who is nationally recognized as a leader in the investigation of peripheral vascular disease.

The much neglected field of peripheral vascular disease presents many points of therapeutic interest for active investigation. In the past few years, these have become more evident with the greater realization of the importance of phlebitis and thrombosis of peripheral veins as etiological factors in the production of pulmonary embolism and death. Also, the acquisition of new medical agents and surgical expedients has demonstrated how much the course of peripheral vascular disease can be modified by early diagnosis and appropriate treatment. Until 1946, the Department of Medicine had no special clinic for this purpose but with the addition to the staff of Dr. Irving S. Wright it became possible to establish such a station. This is a clinic which merits the joint activity of the Departments of Medicine and Surgery. Already the enterprise has been productive of increased interest in the subject on the part of medical students and house staff. It has made possible the appointments of 2 graduate fellows and has led to the establishment of a chemical laboratory for purposes of investigation. This promises to be another of the clinical enterprises for

which Cornell University Medical College and New York Hospital will be known in other centers and throughout the world.

In every outpatient department there are many patients whose complaints are troublesome and chronic, whose diagnosis is often in doubt, and whose treatment is less than satisfactory. They are in general people who are emotionally maladjusted and ill-fitted to cope with the stress of daily life. They include those who without organic defect are anxious, depressed, and insecure to a degree that they consider themselves ill and more or less incapacitated. Among them are many who have been diagnosed as having peptic ulcer, ulcerative colitis, hypertension or Graves' disease. Their complaints are numerous and insistent. They try the patience of their physicians who seldom have sufficient time to examine and analyze the background of their insecurity. The problem of the care of such patients is as old as the practice of medicine and faces every practitioner and every clinic.

In our institution, an approach to their care has been made in the establishment of a clinic in the medical outpatient department for the study of emotional factors in disease. This was made possible by a generous subsidy from the Commonwealth Fund for a period of 3 years. The clinic is under the immediate direction of Dr. Harold G. Wolff, and is supervised by an internist, Dr. Stewart G. Wolf, and a psychiatrist, Dr. Herbert S. Ripley. Six Commonwealth fellows and one social worker take part in its activities each morning. In the afternoons, the members of this staff are engaged in work on psychosomatic problems of great variety. Late in 1946 the enterprise was greatly strengthened by a generous grant from the Lester N. Hofheimer Foundation to the New York Hospital for the establishment of fellowships and the support of developments in this field.

The fellows are selected from the ranks of young internists who have had at least two years of intensive training in internal medicine, who have been impressed with the need of stressing emotional factors in the study of disease, and who have displayed in their previous work qualities of leadership and promise as teachers. The fellowships are designed to last for a two-year period. It is hoped and expected that it will be the means of equipping a small group of young internists with a broad experience in the combined physical and emotional factors in disease and with the capacity of exerting influence here and elsewhere in the development of a most important aspect of medicine. Although some of the simpler methods of psychiatry are used in the daily work, the clinic is not intended for the training of psychiatrists. Throughout, this activity has had the help and cooperation of Dr. Oskar Diethelm of the Department of Psychiatry. In the future it should be a potent factor for correlating the work and aims of psychiatry and medicine. This clinic has attracted many visitors some of whom have associated themselves with its work.

The gastrointestinal clinic has been placed under the direction of Dr. Thomas P. Almy and its functions have been resurveyed. The chief aims of the organization as it now exists are twofold: a) to establish a more complete integration in the activities of medicine, surgery, and radiology in the study of gastrointestinal diseases; and b) to emphasize psychosomatic study in those functional diseases of the gastrointestinal tract which always form the majority of the conditions treated in any gastrointestinal clinic. The clinic has been strengthened by the return from the war of Dr. Louis Hauser, Dr. Reid Heffner, Dr. Michael Lake, Dr. John R. Twiss, and also of Dr. Sidney Weintraub who has cooperated through the Department of Radiology in conferences, in consultations, and in the training of members of the staff. Many members of the Department of Surgery have helped and cooperated. Investigation of the emotional components of organic diseases such as peptic ulcers, and mucous or ulcerative colitis have been facilitated by the formation of the Psychosomatic Clinic and by the participation of Dr. Beatrice Berle and other members of that organization.

The investigative work of the department has been extended with the return of many of the staff and space will permit only the mention of the topics on which research is being pursued. Previous work is being continued on studies on the nature of pain; Cornell Selectee Index; psychosomatic research; investigations in shock and hypertension; citric acid metabolism and the pathogenesis of nephrolithiasis; studies in convalescence; the role of vitamin E in progressive muscular dystrophy; chemotherapeutic research, i.e. penicillin and its mechanisms and streptomycin in the treatment of human tuberculosis. Other research activities, many of them new,

include the following projects:—biotin deficiency in man; the role of anticoagulants in the treatment of coronary thrombosis with myocardial infarction; the mechanism of thrombosis; observations on the blood pressure in the four extremities; the effects of section of the ninth cranial nerve; clinical studies of constrictive pericarditis; the distribution of pain in angina pectoris; the effect of aging on the electrocardiogram, the effect of digitalis on the persistence of auricular fibrillation; Wolff-Parkinson-White Syndrome; ventricular paroxysmal tachycardia; observations on the Schemm diet; digitalizing amount of Digitalline Nativelle; prognosis of syphilitic aortic insufficiency; effects of treatment of cardiovascular syphilis; effects of concurrent syphilis and tuberculosis; secretion of gastric mucin; effect of emotional stress on the function of the colon; evaluation of the secretin test of pancreatic function; effects of urogastrone; function of the esophagus; effects of radioactive strontium on bone and bone marrow; adrenergic and cholinergic effects of blood; cranial arteritis; effect of vagotomy on gastric function; studies on hypertension; chemical and immunological studies of low ragweed pollen extract; a method for the more rapid immunization of patients suffering from hay fever; coexistence of two antibodies for crystalline insulin; quantitative precipitin analyses; immunological and clinical studies on fractions of low ragweed pollen; studies on the effectiveness and mode of action of new antihistaminic drugs; effect of ultra-violet radiation; studies of the antibiotic effects of a purified filtrate of Bacillus XG; studies of penicillin sensitivity; ringworm of the scalp; pain impulses in various dermatoses; electrolytic burns of the mouth; studies of the action of thiouracil and related compounds; acetylcholine synthesis; loquacity as related to personality patterns and the effect of drugs.

The work of this department received support from the following sources: Mr. Philip D. Armour; Caterpillar Tractor Company; Commonwealth Fund; Lester N. Hofheimer Foundation; Kellogg Foundation; Mr. Samuel H. Kress; Lederle Laboratories, Inc. Eli Lilly Company; Josiah Macy, Jr. Foundation; John and Mary Markle Foundation; Mr. Hoyt Miller; National Foundation for Infantile Paralysis; National Research Council; National Institute of Health; Charles Pfizer Company; Mr. Clarence S. Postley; Dr. Paul Reznikoff; Schering Corporation; Schieffelin & Company; Mr. Arnold C. Schuere; Searle and Company; Sharp & Dohme; Sterling Foundation; and Wyeth Company.

At the meetings of the American College of Physicians, held in Chicago late in April, Dr. David P. Barr, Professor of Medicine, presided as President of the College.

MILITARY MEDICINE

The ROTC Unit at Cornell University Medical College was reactivated in the fall of 1946, following the discontinuance of the Army Specialized Training Program. This medical ROTC Unit at Cornell is designated as the 1256 ASU (ROTC). Due to the shortage of regular army medical officers, special arrangements were made by the Surgeon General to have the course conducted by a Medical Corps Reserve Officer. We were fortunate to have Major Lawrence W. Hanlon (Cornell A. B. '35; M. D. '38) assigned to this work. It is with regret that we have been informed late in the year that our present arrangement cannot be continued during the next academic year. In June of 1947, the Surgeon General sent word that a regular army medical officer would be assigned here for next year.

This year's activities have been concerned with getting the course started and developing an adequate system and program of instruction within the requirements of the ROTC training program. Since the whole army ROTC program is being reorganized, there have been a great many administrative matters to work out with The Surgeon, First Army, and the ROTC office for this military district.

Thirty students enrolled in this course at the beginning of the year, but 11 were dropped because of physical disability or a lack of other qualifications. Due to the program of the curriculum for this year, it was necessary to complete the First Year Advanced Course when the present senior students finished their junior year. Five of these seven students have completed eight hours of their Second Year advanced work and are attending a six-weeks summer camp at Fort Sam Houston, Texas, beginning, June 21, 1947. These students will finish their ROTC training when they finish their medical course. The course is partially didactic, comprising lectures and written quizzes; and partly practical with discussion groups, map exercises, solution

of medico-military problems and exercises in preparing War Department forms. Numerous training films with sound have been used for instruction, since these offer the most practical means of demonstrating many of the military subjects. Numerous mimeographed charts and outlines have also been used in the course.

Army regulations permit those veterans who have had one year of military service to omit the first two years of the ROTC course, at the discretion of the PMS&T. Such has been done during the past year. However, it does not seem a wise practice and Major Hanlon has recommended that no students in the future be permitted to omit any part of the medical ROTC course unless they are able to pass satisfactorily an examination which would test their proficiency in subjects covered normally during the elementary course.

We have been fortunate in having Major Hanlon here to start this work off. We have certain reservations about this program, one of which is the fact that in the First and Second World Wars reserve officers were called to active duty at ranks lower than those of physicians of comparable training who entered military duty without reserve commissions. This opinion is shared by many medical educators in spite of assurances that have been given that it will not happen again. Recent dealings with the Surgeon General's Office of the Army do not tend to relieve our apprehensions about this matter.

OBSTETRICS AND GYNECOLOGY

This department provided medical and nursing service to a far greater number of patients in 1946 than during any previous year since the opening of the new building in 1932. In 1946 the total census of discharged patients, including infants, was 9,795 as compared with 8,817 in 1945. This sharp increase is reflected in both the obstetrical and the gynecological services.

In the maternity division, 4,523 women and 3,561 babies were cared for, with an uncorrected maternal mortality of 1.01 per 1000 pregnancies and an infant mortality of 1.80 percent. The gynecological division treated 1,722 women. The total number of gynecological operations performed during the year was 1,487 with a postoperative mortality of 0.47 per cent. This number of operations represents an increase of 20 per cent over the 1945 figure.

The most pressing need of this department is additional accommodations in both the private and semi-private services. So far it has not been possible to use all the new semi-private rooms constructed in 1945, because of the continuing shortage in the nursing staff. However, the 132 teaching beds are sufficient to afford adequate undergraduate instruction in obstetrics and gynecology to our third- and fourth-year medical students.

Each fourth-year medical student lives in the Woman's Clinic for a period of two months, devoting his full time to Obstetrics and Gynecology. During this period he acts as a clinical assistant on the gynecological service and operating rooms, the delivery service, and the obstetrical wards, and outpatient clinics. During this past year the fourth-year class averaged fourteen to eighteen deliveries per student.

The marked rise in the birth rate during 1946 throughout the nation apparently follows the postwar pattern of the first World War. Thus there will probably be a decline in the next year or two. On the other hand, the percentage of hospital deliveries is steadily mounting with a dwindling of home deliveries.

The five-year residency system has been reestablished. In this schedule of graduate training, each doctor spends four months of his third year in the Department of Pathology. This has proved beneficial and stimulating not only to the house staff but also to the staffs of the two departments.

The department regrets its inability to accord further hospital training to the many returning veterans who have applied and for whom there have been no openings. The J. Whitridge Williams assistantships in Obstetrics and Gynecology, made possible by a grant from the Rockefeller Foundation, proved to be of great value in affording further training to two returned veterans who had not fully completed their residencies when inducted into the armed forces.

The investigative program included studies on eclampsia, hypertensive disease, nephritis, uric acid clearance, obstetric paralyzes, puerperal infection, retroperitoneal tumors, heart disease in pregnancy, the causes of premature delivery, obstetric

anesthesia, and transverse presentation. The research on eclampsia has been made possible through a generous extension of a previous grant-in-aid from the John and Mary R. Markle Foundation. As a result of these chemical investigations, seventy-seven eclamptic patients have been cared for during the past fourteen years with only one maternal death. The Commonwealth Fund has continued to provide generous financial support for the vaginal smear investigations conducted by this department and the Department of Anatomy.

On July 2, 1947, Professor H. J. Stander was awarded the honorary degree of Doctor of Medicine, *Honoris Causa*, by Trinity College of Dublin University which was established by Queen Elizabeth in 1579. This occasion was a celebration of the Bicentenary of the Rotunda Hospital. In addition to a lecture given in Dublin, Dr. Stander also presented lectures before the British Postgraduate Medical School in London.

PATHOLOGY

The courses in general and special pathology were given during the second and third trimesters of the current year according to the plan outlined in last year's report. As in previous years, the second-year students were requested to assist with and report upon postmortem examinations and to write essays in pathology upon approved subjects.

The teaching staff of the department has been strengthened by the addition of several assistants and instructors. It has been possible to provide much more individual instruction in the laboratory, in the seminars, and in the scheduled demonstrations of pathological anatomy. The added strength provided by the younger men has likewise made itself felt in the character of the Clinical Pathological Conferences where more detailed demonstrations of pathological anatomy, aided by kodachrome photography, have been given each week in cases carefully selected for their teaching and clinical interest.

The integration of the work of this department with other departments in the medical school and hospital has been greatly enhanced by arrangements whereby assistants from the Department of Obstetrics and Gynecology and from the Department of Radiology are attached at all times to the Department of Pathology. Dr. Samuel Dooley, a senior member of the Department of Pediatrics, holds an appointment in the Department of Pathology as well and participates actively in the routine and teaching work of both departments, thus affecting a mutually advantageous liaison. Plans for integrating the work of the Department of Pathology with that of the Departments of Medicine and Surgery have been recently implemented whereby members of the resident staff from the Department of Pathology will be attached at all times to the Central Laboratories and to the Laboratory of Surgical Pathology.

The strengthened staff and the organization of the teaching activities have made it possible for all members of the staff to engage in research work for the first time in several years. In Professor Kidd's laboratory, serological studies of distinctive constituents of normal and neoplastic cells have been continued with generous support from the Jane Coffin Childs Memorial Fund for Medical Research, and an extensive investigation on cytological and biological studies of the changes that occur when benign virus papillomas become malignant has been initiated under the provision of a substantial grant from the Committee on Growth of the National Research Council acting for the American Cancer Society. In addition an experimental project involving studies on the mechanisms of resistance to transplanted cancer have been prosecuted in collaboration with Dr. Helene M. Toolan, support for this project having been made available by the Anna Fuller Fund, The Donner Foundation, and the National Advisory Cancer Council. A published report has been made of work now extending over a period of years on the effects of an antibiotic from *Aspergillus Fumigatus fresenius* on tumor cells *in vitro*, and its possible identity with gliotoxin. Further studies on this antibiotic are now underway, some in collaboration with Dr. Walsh McDermott of the Department of Medicine. Dr. Hans U. Zollinger, Visiting Fellow from the University of Zurich, has completed his cytological studies on normal and neoplastic cells made with the aid of the phase contrast microscope. An American made instrument with phase objectives has been procured for the general use of the laboratory.

With generous support from the Anna Fuller Fund, the Donner Foundation, the Lady Tata Memorial Trust, and the National Advisory Cancer Council, further investigations on the Leukemias and on ovarian carcinomas of experimental animals have been made in the laboratory of Professor Furth. With aid provided by the United Hospital Fund, Dr. Flory has continued his studies on the blood vessels and parenchymal cells of the exteriorized pancreas in experimental animals. Dr. Olcott has continued his morphological studies of argyroses and has begun a detailed inquiry into the immediate pathology of cancer as revealed by necropsies performed by the department. Dr. Aaron Kellner has initiated an extensive series of investigations on experimental cardiovascular pathology, studies being made simultaneously on cholesterol atherosclerosis, experimental vascular hypersensitivity, and experimental hypertension. Dr. Stevenson and Dr. Alvord, in addition to making detailed studies on the microscopic lesions found in a number of uncommon and poorly understood diseases of the nervous system, have produced encephalomyelitis and demyelination experimentally in guinea pigs and are studying the pathogenesis and nature of these disease processes. Dr. Theodore Robertson has studied the effect of potassium in adrenalectomized animals and has devised a test whereby the relationships between synthetic adrenal hormones and sodium and potassium metabolism may be elucidated.

In addition to the research activities described above, the entire department has scrutinized the materials procured postmortem from a number of patients who had been treated extensively with streptomycin. Drs. Flory, Correll, and Kidd have reported in several places upon the modifications of tuberculous lesions in streptomycin treated patients, and have described interesting anatomical alterations that can be correlated with the development of drug fastness by the tubercle bacilli in vivo. Studies by Drs. Stevenson, Alvord, and Correll have demonstrated the fact that necrosis and necrobiotic changes in the eighth cranial nerve nuclei are probably responsible for the dizziness and deafness that sometimes follow prolonged streptomycin therapy.

A testimonial dinner with talks by Professor Emeritus Eugene L. Opie and Dr. Peyton Rous of the Rockefeller Institute was given on May 13 in honor of Dr. Jacob Furth, who at the end of the academic year left the department to assume the directorship of the Central Laboratories of the Veterans Hospital in Dallas, Texas.

During the year nineteen papers were published from this department.

PEDIATRICS

The return of veterans discharged from military service during the current academic year has amplified the pediatric teaching staff to prewar levels. While this increased personnel has eased the burden carried by a depleted staff during the war years, the assumption of other duties by full-time staff members leaves this complement unfilled. In last year's report it was stated that Drs. Harry H. Gordon and Myron E. Wegman had resigned to become department heads in other medical schools. Dr. Martin J. Glynn, Jr., Assistant Professor of Pediatrics, and Dr. Thomas F. Henley, Instructor, have entered practice, the former retaining a position on the part-time staff, the latter receiving a faculty appointment at the Bowman-Gray Medical School. Dr. Benjamin M. Spock, Instructor, left to join the Mayo Clinic as psychiatric consultant to the Pediatric Section of the Clinic and St. Mary's Hospital and to participate in the Rochester Child Health Project. Dr. Henry H. Work, Jr., Pediatric Fellow in Child Psychiatry, accepted the post of Director of the Mental Hygiene Unit of the United States Children Bureau. Dr. Martha L. Smith assumed similar duties in the Division of Child Research and Development of the same agency at the close of this academic year. The leave of absence granted to Dr. Margaret Dann, Assistant Professor of Pediatrics, has been renewed for the current year to permit her to continue her medical work with displaced persons in Europe under the auspices of the American Friends Service Committee.

These vacancies have been partially filled by satisfactory replacements. Dr. Henry L. Barnett who was previously associated with Washington University Medical School and the Manhattan project was appointed Assistant Professor of Pediatrics and Director of the Pediatric Research Laboratories. Dr. Samuel W. Dooley and Dr. John H. Dale, Jr., Instructor, returned to the full-time staff to assume

newly created liaison positions with the Departments of Pathology and Radiology, respectively. Liaison appointments of this nature, already in existence for a considerable period between the Departments of Pediatrics and Psychiatry, are a great educational benefit to students, house staff, and attending pediatricians alike; they promote patient care and facilitate clinical investigations. Dr. Luigi Luzzatti resumed his duties as Instructor following military discharge and will replace Dr. Martha L. Smith as Chief of the Pediatric Outpatient Department.

Pediatric instruction at all levels, undergraduate, graduate, post-graduate, and nursing, continue to reflect greater attention on normal growth and development, their common aberrations and the over-all influence of environmental factors on the promotion of physical, mental, emotional, and social fitness and health. These changing trends in pediatrics are being met by changes in teaching methods and content. At the close of the academic year, the establishment of an Institute of Child Development under the direction of Dr. Milton J. E. Senn, Associate Professor of Pediatrics, was approved.

The organization of the pediatric curriculum for medical students embodying a series of introductory clinics on growth, development, and nutrition in the second year; bedside instruction in physical diagnosis and childhood contagious diseases, and a comprehensive survey of pediatric problems in weekly clinics in the third year; and clinical clerkships in the fourth year, has proven satisfactory.

The extension of graduate training to pediatric house officers by affiliations with Knickerbocker, Memorial, and Willard Parker Hospitals, inaugurated in 1945, has proved of mutual benefit to the affiliated institutions and the pediatric staff. The latter are given the opportunity of enlarging their experience by acting as residents on services devoted to the care of anterior poliomyelitis, tumors, and the common childhood contagious diseases. This enlarged experience, in addition to other plans in prospect, envisaging home visits and attendance in schools, should result in the more rounded training of pediatricians.

The pediatric department is also participating in the post-graduate course to veterans, under Dr. Deitrick's supervision at Bellevue Hospital. Staff members have given three series of lectures, including clinical demonstrations, for groups of twenty-five to thirty veterans, arranged to cover the practical aspects of diagnosis and treatment of pediatric conditions of most importance to practitioners. A total of twenty-two veterans and other physicians interested in current methods in the care and treatment of children attended the activities of the department as observers for periods ranging from several days to six months. They included three Americans, four Latin-Americans, and fifteen from Australia, Belgium, Czechoslovakia, Denmark, England, Greece, Palestine, The Philippine Islands, Poland, and Spain. In addition a number of physicians from other states, Latin-America, Belgium, and England were welcomed as visitors.

At the request of and under the sponsorship of the Department of State, of the United States, a documentary sound film, portraying pediatric teaching and the care and treatment of children at the New York Hospital-Cornell Medical Center, was made for inclusion as part of a trilogy entitled: "Journey into Medicine." The State Department plans to distribute this film with translations into twenty-seven languages for world-wide exhibition as part of its international educational program.

The division of occupational and diversional therapy, established in 1944, expanded its activity in the current year to encompass not only in-bed and convalescent children in residence but also ambulant children in the outpatient department. Recreation and creative experiences were provided for a total of 450 children on the pavilions and for an even larger group of clinic children in the playroom of the outpatient department.

Increased fellowship grants from the Commonwealth Fund for the training of teachers in pediatric and health departments throughout the United States have made possible the training of four such fellows during the year. The training program is carried on by Dr. Milton J. E. Senn under the joint aegis of the departments of pediatrics and psychiatry.

The research program is expanding following the period of curtailment during the war years. Studies on the physiology of premature and full-term new born infants are being resumed as part of the comprehensive studies which were carried on for many years prior to the war. Investigations of fluid and electrolyte metabolism

in infants with the use of radioactive isotopes are being initiated in conjunction with the Department of Physics at Memorial Hospital. The materials are being procured from the Isotopes Branch of the Atomic Energy Commission and from the Department of Physics at Columbia University. A laboratory test for determining antidiuretic activity in cases of suspected diabetes insipidus was applied to patients.

Additional current investigations now in progress include: combined immunizations in young infants; the effect of prophylactic measures in reducing the incidence of intercurrent infections in allergic conditions; the natural history of rheumatic fever; the adequacy of feeding during the first year of life with a specially prepared milk without added foods; refined measurements of kidney function in the various forms of nephritis of children, and the effect of intravenous magnesium sulfate on renal blood flow, glomerular filtration rate, and electrolyte clearances in normal children and in children with various types of hypertension; an evaluation of the effect of BCG vaccination in infancy on the subsequent course of childhood tuberculosis during the adolescent period; a simple and rapid method for the assay of penicillin in serum; hematologic studies in Mediterranean anemia and other types of blood dyscrasias in infants and children; the establishment of an ambulatory transfusion clinic for patients with hemolytic anemias; a clinical study of retrolental fibroplasia in premature infants; and the effects of Rh incompatibility on mothers and offspring together with the role of exsanguination transfusions. Several of these studies are being carried on in collaboration with outside organizations and other departments of the college, Obstetrics and Gynecology, Medicine, Biochemistry, the Massachusetts Eye and Ear Infirmary, the New York City Department of Health, the New York City Board of Education, and the New York Foundling Hospital. One hundred two addresses to medical and lay groups were delivered by staff members during the academic year. Nineteen publications appeared from this department during the year and fifteen are in press.

The work of the department received continued financial support from the following outside sources: The Commonwealth Fund, the Rockefeller Foundation Fellowship Fund, the Marion R. Ascoli Fund, the National Dairy Products Company, and the Mead Johnson Company. A new grant from the Massachusetts Eye and Ear Infirmary, was received by the department. Grants from the Evaporated Milk Association and the Lederle Laboratories, Inc., expired during the year.

PHARMACOLOGY

The year has marked the resumption of normal activities following the restricted operation during the war period. The older staff members have been able to work under more favorable circumstances and those who were absent in active service have rejoined the staff. The latter include Dr. Oscar Bodansky, Dr. Maynard B. Chenoweth, and Mr. Charles Kensler. It is expected that Dr. W. C. Wescoe, who is now at Edgewood, will be released from Army service sometime next fall when he will return to the department. Dr. Frederick Philips, who is Pharmacologist at the Sloan Kettering Institute, has worked in the department during the past year and will hold an appointment as instructor next year.

In spite of many outside opportunities, the departmental staff has been built up with few losses. The only men who have left worked on research projects for the War Department. They are Dr. Rudolph Koster, who left to become Instructor in Pharmacology at Tulane University, and Dr. S. B. Raska, to take a research position at Washington University, St. Louis. In addition, Dr. Paul Bunn, who held a joint appointment with the Department of Medicine, resigned to accept a position with the Veterans Administration, and Dr. O. Miquel returned to Paraguay, after having spent two years in the department.

With the increase in staff members, especially investigators on special projects, it has been possible to improve all aspects of the teaching program, and in some instances to expand them. In the introductory course a number of exercises have been conducted with small groups of students, the class being divided into four sections for some of the demonstrations and conferences. The conferences on therapy have been held weekly throughout the year and are continuing to fill a definite need. As in the past, a selection of these conferences has been published in the New York

State Journal of Medicine. An additional series is now appearing in the American Journal of Medicine. The total number of conferences published since their inception ten years ago now exceed 100. The second volume of the "Cornell Conferences on Therapy," published by the Macmillan Company, was expected off the press in June. The sale of the first volume has exceeded expectations and two extra printings have been necessary. Frequent seminars on pharmacology have been held throughout the year.

The research program has been concerned with investigations on the following topics: comparative studies of the action of a number of new digitalis glycosides in man and animals, the action and uses of organic mercurials in heart failure, the mechanism of action of anticholinesterases with special reference to neuromuscular function, the influence of digitalis on cellular respiration and on various enzyme systems, the local emetic action of the digitalis glycosides, the anticurare actions of the azo dyes and related compounds, factors influencing the production of tumors by butter yellow, the effect of dietary factors on the capacity of the liver to metabolize butter yellow, the mechanism of the relief of muscle pain by injection techniques. Thirty papers, seven abstracts, and ten reviews of conferences on therapy have appeared from the department during the year.

As in the past, many of these projects have been supported by grants from industrial sources. The total received has been somewhat larger than in recent years and amounts to \$29,500.

It is particularly gratifying to record that a large proportion of the firms cooperating in this research program have continued to do so year after year and that, other than agreement on the general field of research, there have been no restrictions on the expenditure of these funds. These grants come from Schering Corporation; Lakeside Laboratories; Lederle Company, Inc.; Eli Lilly Company; Cinchona Products Institute; Johnson & Johnson; Campbell Products Company; E. R. Squibb; Wyeth, Inc.

Another source of funds during the past year has been from Government agencies and other foundations. A sum of \$39,171 was provided by the American Cancer Society, the Baird Foundation, the U. S. Chemical Corps, and the U. S. Public Health Service. There are some undesirable features in having so large a proportion of this staff dependent upon annual grants and it is intended to continue work already under way to enlarge the income from endowment sources.

The members of this staff have been active in work with the outside profession, organizations, and the public. Dr. Gold has been in great demand as a lecturer at scientific and medical meetings, especially in connection with the scientific work which he and his associates have carried out in the management of heart disease. In spite of the fact that he has found it necessary to decline many invitations during the year, he has found it possible to give twenty-four lectures before different institutions over the country. Dr. McKeen Cattell, the head of the department, has served in the following capacities: Managing Editor of Journal of Pharmacology and Experimental Therapeutics; Advisory Committee for the Chemical-Biological Coordination Center of the National Research Council, and Chairman of its sub-committees on Biological Coding and Physiology-Pharmacology; Editorial Board of Federation Proceedings and three other scientific journals; chairman of Scientific Committee on Methods of Drug Detection in Horses of the Association of State Racing Commissioners; a member of Committee of the Pharmacological Society to make recommendations on a review journal; member Pharmacology Study Section of the U. S. Public Health Service; member of panel of the Committee on Growth of the National Research Council; member of Committee on Public Health Relations and sub-committees of the New York Academy of Medicine.

PHYSIOLOGY AND BIOPHYSICS

This department has suffered the loss of two members of its staff. Dr. Charles O. Warren resigned early in the year and, on March 15, Dr. William H. Chambers left to assume an important post at the Edgewood Arsenal. Dr. Ben R. Johnson who worked with the research group of the Navy project left June 30 to continue his training in clinical medicine. Dr. Lawrence R. Prouty will stay on for at least six months more in teaching and research.

Dr. Robert M. Bird supported by a grant from the American Cancer Society will continue as an instructor. There are three new appointments: Dr. John D. Evans, formerly Assistant Professor at New York University, will serve as instructor as will Dr. Doyle Joslin who has had a career as practitioner and Lieutenant Colonel in the Army and is now studying for his Ph. D. in Biophysics. Dr. John A. Clements, one of our recent graduates, will assist Dr. Bird in research and help in the laboratory course. For the last three months, another recent graduate, Dr. Paul A. P. Dineen has assisted Dr. Edwards with the students in the laboratory. There has been a senior and junior instructor for almost every group of sixteen students in the laboratory.

In the teaching, a change has been made in the order of approach to the different aspects of physiology. An effort has been made to integrate the course with the instruction in the Department of Anatomy and Biochemistry. This year it started with muscle and nerve and then went on to digestion, endocrines, special senses, and the central nervous system. A large part of the experiments have been performed on the students themselves. They have taken particular interest in these experiments and seem to enjoy most those which cause them most discomfort.

The research work in Physiology has been supported almost entirely by outside funds. The largest grant, one of \$54,000, came from the Office of Naval Research and will be continued at about the same level for two more years to carry on the work of Dr. James D. Hardy. Dr. Hardy and Dr. Charles Richards are developing an apparatus which gives promise of a new method of surveying the gain and loss of heat outdoors in a large variety of conditions. Dr. Hardy and Miss Alice Stoll have almost completed an analysis of the errors of many instruments used by research workers in estimating surface temperatures. With Dr. Robert Furchgott and Mr. Harris Rosenkrantz, Dr. Hardy has advanced his studies in infra-red spectroscopy and has just installed an improved spectrometer. The studies on pain have been continued in association with several other departments of the medical college.

Dr. Chamber's work for the Navy on the temperature regulation of woodchucks has been carried on by Dr. Prouty. Dr. Bird who is working on a Fellowship from the American Cancer Society has been helped by an annual grant of \$4,350 from the same Society. This support will be continued for one or two more years. He has gathered together a staff to work with him on a study of the microrespiration in leukemia and the normal bone marrow. Dr. Evans will work with him on a Fellowship from the U. S. Public Health Service. Dr. George L. Kauer and Dr. Richard R. McCormack, graduates of our school trained in clinical medicine and hematological research, will be with Dr. Bird next year on a part-time basis. Dr. Clements will likewise assist in this work.

Drs. DuBois, Hardy, and Johnson and Miss E. I. Stevens have been working with the Sage calorimeter continuing studies on the metabolism of women at different environmental temperatures. During the year sixteen publications have appeared from the department.

Dr. DuBois is a member of the National Research Council Committee on Aviation Medicine and also the Committee on Undersea Warfare and of an American Medical Association Committee of Consultants on Clinical Thermometry. He and Dr. Hardy continue their work as consultants to one of the committees of the American Society of Heating and Ventilating Engineers. Dr. Hardy has just completed a chapter for the book on the Science of Clothing prepared by the National Research Council subcommittee on clothing.

Mr. Hugh DeHaven, who holds the title of Research Associate in Physiology and Biophysics, has extended his valuable work on Crash Injuries supported by a fund managed by the National Research Council. He and his two assistants have been continued in two rooms in the department until such time as they can be moved to other quarters. This project has attracted wide attention and has already had great influence in making airplanes safer.

A natural extension from the study of crashes has been the effort to prevent crashes. Cornell University with its outstanding Aeronautical Laboratory in Buffalo is in a position to assume leadership in this field. A University Committee in Air Safety Research has been appointed with Dr. C. C. Furnas as Chairman with representatives from the staffs at Buffalo, Ithaca, and the Cornell Medical College. This committee hopes to start with a comprehensive survey of the whole subject.

PSYCHIATRY

There have been few changes in the undergraduate teaching during this year. In the first-year course, didactic lectures were aimed at giving the student an understanding of the importance of the normal person, of emotional factors and their physiologic expressions and of the relationship to other persons. In seminar discussions, in which the students participated with interest, the importance of these facts in the study and treatment of patients was elucidated. In the third year, seminar discussions of clinical psychiatry were introduced with satisfactory results.

In January, 1947, four fellows were accepted for a one-year training in psychotherapy. This outpatient course has attracted wide attention and the results have been gratifying. Through the enlarged resident staff and the fellows, it has been possible to staff a morning outpatient department. Under contract with the U.S. Veterans Administration, veterans who suffer from psychoneurotic and epileptic disorders are being received for treatment. It is hoped that it will be possible to select suitable cases from the large number of veterans who need psychiatric treatment and develop this clinic for graduate training and research in psychotherapeutic methods. At present brief psychiatric interviews of fifteen to thirty minutes duration and group psychotherapy are being explored.

The resident training program and the post-graduate teaching of pediatric fellows have been continued along the lines outlined in last year's report. In the Department of Medicine, a group of internists received postgraduate training in the psychological and psychiatric aspects in internal medicine as has been described in the part of this report which deals with the Department of Medicine. The educational philosophy is similar to the one which has proved to be so fruitful in the Department of Pediatrics.

Research work in the field of psychopathology (Dr. Diethelm and co-workers) included experimental procedures to investigate convulsive therapy. Studies of the treatment of psychopathic personalities and of psychopathology of depersonalization have progressed well. Together with Dr. Victor F. Marshall of the Department of Surgery (Urology), studies in psychic impotency have been started.

A five-year support totalling \$150,000 for the study of the causes of chronic alcoholism has been received from the Research Council on Problems of Alcohol. A study of the literature in this field and preliminary combined psycho-pathologic-physiologic investigations have been started on a limited number of patients in the Payne Whitney Clinic. These orientative studies by Drs. Diethelm, Milhorat, Oberholzer, and Rockwell point to some promising leads.

In the Nursery School, the dream life of children of the ages between two and five has been investigated by Dr. Despert. Further investigations bearing on the problem of anxiety were carried out.

The tests and psychological studies used on patients must be evaluated on normal individuals of similar intelligence and age groups. Dr. Livingston Welch has given all these tests to a sufficiently large group of students at Hunter College. This work makes possible statistically reliable tests. A great deal of time had to be spent to obtain a statistical evaluation of findings in the Rorschach experiment and of the many tests which psychiatrists use in the customary examination to determine mental status.

Dr. Ade T. Milhorat continued his work on vitamin E with the aid of funds provided by Mr. Philip D. Armour. Various derivatives were prepared and tested on patients with muscular dystrophy. An increasing understanding is being obtained of the changes that must be made to permit vitamins to be active in these patients. In amyotrophic lateral sclerosis, cytochrome C was found to have a beneficial effect on ten patients. Biochemical investigations were carried out with special reference to the occurrence and nature of a substance that stimulates the isolated rabbit intestine which has been treated by hyoscine. This substance seems to be related to the emotion of resentment.

Clinical and experimental studies by Dr. Harold G. Wolff and his co-workers have continued to deal with the influence of emotions on physiological functions, especially in hypertension, bronchial asthma, variations in intraocular pressure, mucous colitis, bladder function, salivary functions, and muscle tension.

The psychiatric student health service has been carried on by Dr. Edwin J. Doty.

A number of addresses have been given by members of the staff before meetings and societies. During the year, twenty-three publications appeared from the department.

PUBLIC HEALTH AND PREVENTIVE MEDICINE

The teaching activities which were so disrupted during the war have returned to normal. With the addition of Dr. Emerson Day to the staff, it has been possible to give greater emphasis to the teaching of industrial hygiene, and to the development of a program in adult health promotion. It has been possible to introduce a more effective clinical application of the theoretical aspects of the subject material. The Health Center teaching has also improved. A full staff is now established at the Health Center with a capable full-time health officer, Dr. Michael Antell. With Dr. Morton Kahn in charge, the teaching in parasitology has profited indirectly as a result of the support of research in this area from the Fleischmann Fund. Dr. Horace Gardner has been a valuable addition to the clinical staff in this division of the teaching since he presented the clinical aspects of parasitology and also has been active in diagnostic work for the New York Hospital.

The return to the former plan of requiring each student to make a community analysis of adequacy of medical care is an important part of this teaching. It has been the tendency to place less and less emphasis on formal lectures and to give more importance to conferences and other exercises in which there is active student participation. There has been a series of eight discussions on the adequacy of medical care. Some of these exercises are conducted by men who are invited in from the outside. Emphasis on the teaching of statistical interpretation of medical data has been increased in the second year course and now four afternoons of three hours each are devoted to this subject.

Dr. Denis Wharton resigned as of June 30, 1947, to accept a position elsewhere. Dr. Horace Gardner, clinical instructor in tropical disease has presented his resignation to take effect September 15, 1947, in order that he may take up his duties as Assistant Professor of Preventive Medicine at Yale University School of Medicine. Dr. Sterling Brinkley, assistant under a grant from the Rockefeller Foundation, who has been receiving additional clinical training in medicine, will take up his work in teaching and investigation in the department beginning July 1, 1947, as will Dr. Arnold Pratt who has been on the staff in the Department of Pediatrics.

Professor Emeritus John C. Torrey passed away October 7, 1946. Some of his interesting immunologic observations in malaria, which he had just completed, are being prepared for publication. During the year, Dr. Choucroun returned to France for six months after which she came back to the department for a six-months period to complete her studies which are being conducted under a grant from the Josiah Macy, Jr., Foundation.

Dr. Morton Kahn has continued his research on the control of mosquitoes by sound. In order to extend his work to field trials, he left in May, 1947, for West Africa where for several months, he will conduct sound control experiments on mosquitoes endemic to that area as well as investigating arthropods important to the transmission of tropical diseases. This is being done with the aid of grants from the Rockefeller Foundation and the U. S. Public Health Service. He has extended his studies of the malaria parasite using the single cell technique with *Plasmodium gallinaceum* in chickens. This work has been concerned with various phases of the life cycle, particularly with the review of Schaudinn's work on the penetration of erythrocytes by sporozoites and with the minimal number of parasites necessary to produce infection.

Miss Isabella Brogan, who is working under Dr. Kahn, is a candidate for the Ph.D. degree in parasitology. Her thesis work is on toxoplasmosis, with particular emphasis on the cultural, morphological, and developmental stages of the organism in vivo and in vitro with the end in view of classifying the parasite. Immunologic phenomena have also been studied while doing diagnostic (neutralization) tests on patients admitted to the New York Hospital.

Dr. Horace Gardner has been working on the cultivation in large quantities of *Trypanosoma Cruzi* in relatively protein free media and started experiments to determine the effect of infections of this organism in leukemic mice. Dr. Dennis Wharton has continued his studies in filariasis with a view to study the

pathology of the infection and to define the antigenic specificity of the worms in relation to other common helminth parasites. Five papers have presented his work in this field. Dr. Irving Rappaport has studied several immunologic phenomena in *Schistosomiasis mansoni* with special emphasis on skin and precipitin tests and the development and effect of immunity in laboratory animals. Mrs. Wells, a graduate student working under Dr. Rappaport, is doing research in trichinosis in an attempt to find a chemotherapeutic agent.

As a guest of the department, Dr. Nine Choucroun has continued her studies in the immunology of tuberculosis. She has reported the isolation of an antigenic carbohydrate-lipid from paraffin-oil extracts of dead tubercle bacilli. Dr. Smillie, the head of this department, has initiated a study of the immunity to tuberculosis that may be produced by this extract from the bacilli. Dr. Eleanor Alexander Jackson has continued her studies of the morphology and staining characteristics of the tubercle bacillus.

Dr. Emerson Day, who began work in the department in February, 1947, has initiated certain research projects relating to the broad field of industrial medicine and other phases of health protection of persons in adult life.

Plans are underway for the establishment in September, 1947, of a clinic to be known as the Kips Bay-Yorkville Cancer Prevention Clinic. This clinic will be organized as a cooperative project, which will be sponsored by the New York City Health Department, by Cornell University Medical College, and by the Strang Cancer Prevention Clinic of Memorial Hospital. The policies of the clinic will be determined by an advisory committee of six members, as follows: Dr. Israel Weinstein, Commissioner of Health; Dr. David P. Barr, Professor of Medicine at Cornell; Dr. Cornelius P. Rhoads, Director of Memorial Hospital, Dr. Elise S. L'Esperance, Director of the Strang Cancer Prevention Clinic, Dr. Wilson G. Smillie, Professor of Public Health and Preventive Medicine, and the District Health Officer of the Kips Bay-Yorkville Health Center, ex-officio.

RADIOLOGY

Continued increase in the number of X-ray examinations has resulted in more material for both undergraduate and graduate teaching. As has been pointed out previously, considerable more instruction is given in Radiology than is indicated by the number of hours allotted to this subject in the published curriculum. Members of this staff cover several weekly conferences to explain the x-ray aspects of cases presented. Moreover, considerable instruction in X-ray findings is given by the clinicians in ward rounds and in individual discussions of patients in the clinic and hospital. The elective course given in the third year has continued popular.

The weekly evening follow-up conferences have been continued. While these are held primarily for our own staff, radiologists from elsewhere have been welcomed. The attendance has sharply increased during the past year. The affiliation with Memorial Hospital has improved the instruction in X-ray therapy and in X-ray diagnosis of tumors. The teaching files, which include both the film museum and lantern slides, is constantly being added to and kept up-to-date. Previous attempts to completely cross index all the X-ray diagnoses have been unsuccessful since they were made by non-medical personnel. Recently, a new method was inaugurated consisting of complete cross filing of pathological diagnoses by the Assistant Resident.

The only changes in the staff during the past year consist of the addition of Dr. John H. Dale, Jr., as the Pediatric Radiologist and the resignation of Dr. Dan Tucker in order that he might join the staff at the New Haven Hospital. Teaching of the pediatric aspects of radiology has been greatly strengthened by obtaining the services of Dr. Dale, who had had the complete residency training in Pediatrics before he entered the military service.

Topics under investigation in the department include diagnosis of tumors in children, pulmonary osteoarthropathy, an analysis of the X-ray findings in 405 cases of gastric ulcer, Friedlander's pneumonia, two new gall bladder contrast media, gastro-jejuno colic fistula, broncho-pulmonary segments, a new and rapid method of study of the small intestine, bone changes in children, X-ray findings in the small intestine in a series of cases with cirrhosis of the liver, visualization of the

pancreatic ducts by direct injection of contrast media, angiocardiology with a new method using rapid film changers, polycythemia vera, and wound healing of indolent ulcers created by X-rays, stimulated by the application of a tissue extract. Some of this work represents cooperative investigation with members of other clinical departments. The work on gall bladder contrast media and angiocardiology has been carried out with the aid of a grant from the Schering Corporation. The General Electric X-ray Corporation has loaned equipment for use in the study of angiocardiology.

An "Atlas of Radiographic Anatomy" is in preparation for publication, with one volume "Adult Radiographic Anatomy" by Drs. Pearson and Temple, and another volume "Radiographic Anatomy of Children" by Drs. Pearson, Temple, and Dale.

Dr. Temple, the head of this department, has devoted a considerable amount of time in studying the needs for additional facilities in Radiology for the entire institution looking forward to the development of a diagnostic clinic and routine X-ray diagnosis of every patient entering the hospital, whether it be the inpatient or outpatient services. He has served as Chairman of the Isotopes Committee for the Institution.

SURGERY

There has been an improvement in the teaching of surgery to students during the past year. In large measure, this is due to the return not only of the senior men from the Armed Forces but also men on the resident staff. At the beginning of the academic year of 1945-1946, the residents in surgery had been out of medical school an average of only three years; these positions are now held by men who finished medical school on an average of almost nine years, and all have had experience in the military forces.

During the third term of the second year, one afternoon a week is devoted to fundamental principles of surgical diagnosis, technique, infections, and anesthesia. During their surgical trimester of the third year, one third of the class devotes mornings to work on the general surgical wards. Here they attend ward rounds, work up patients and follow them, not only to the operating room but during their stay in the hospital. Afternoons are given over to the surgical specialties, including urology, otolaryngology, ophthalmology both in the hospital and outpatient department. One afternoon a week is given over to the surgical pathology. On an elective basis, an operative course in animals has been given in the laboratory of experimental surgery.

During the fourth year, the class is divided into four parts and each student spends two months on surgery. Each fourth of the class is divided into two sections, one of which rotates through the surgical diagnostic clinic, minor surgery, orthopedic and fracture clinic, the operating rooms for instruction in anesthesia, and the emergency room. With increased staff, it has been possible to increase the number of informal conferences in the surgical clinics to one in the morning and one in the afternoon. At the same time, the other section of the class devotes its time to the surgical service at Bellevue Hospital where regular ward rounds and conferences are held. Both sections attend a weekly seminar where special and timely subjects are presented by the students under guidance. These include shock, burns, trauma, and chemotherapy, in addition to other subjects, and has proved a valuable method of instruction.

At the end of this academic year, Dr. George J. Heuer retires from his post as Lewis Atterbury Stimson Professor of Surgery in the Medical College and Surgeon-in-Chief in the Hospital which he has held since 1931. He becomes Professor of Surgery, Emeritus. During his tenure here, he has developed and carried on one of the finest training programs in surgery and has organized this department on a sound basis in the various phases of its activities. This was demonstrated by the many positions of responsibility assigned during World War II to surgeons who have been trained here and by the meritorious manner in which these responsibilities were carried out by them. Many of these surgeons have returned to our department and Dr. Heuer leaves it in a strong position with an outstanding tradition of high standards of training and care, and in charge of one of the men who was resident on his service and a member of his senior staff, Dr. Frank Glenn. We are indebted to Dr. William Andrus who was in charge of the department during Dr. Heuer's

illness earlier in the year until Dr. Glenn's appointment was announced on March 10, 1947. Dr. Andrus was promoted to the rank of Professor of Clinical Surgery as of July 1, 1947.

During the past year there has been an increasing number of projects undertaken in the laboratory for experimental research together with the continuation of several problems previously under study. Included in the list is the continuation of work on tissue extract and its effect upon tissue growth and wound healing. Experimental work on peritoneal lavage for anuria has been continued and followed by clinical application. Further studies have been carried out on gastric physiology with particular reference to postoperative gastric acidity. A bacteriological laboratory has been established and studies have been made in relation to chemotherapeutic agents with special reference to the sensitivity of organisms to penicillin and streptomycin. These facilities made possible the participation in the national program of the National Research Council in studies of streptomycin. New projects included attempts to produce ulcerative colitis, studies of pancreatic physiology with radio-opaque substances, bronchography as a method of disseminating radio-opaque substances into the bronchial tree by inhalation, refinements in uretero-intestinal anastomoses, new compounds as skin antiseptics, and corneal grafting and methods of preserving grafts. These investigations have been supported by a total of \$27,500 received from the John and Mary R. Markle Foundation, the Given Fund, James Foundation, United Hospital Fund, William J. Sturgis, Alice R. Bernheim, and Cutter Laboratories.

Some seventy-five publications on a wide variety of surgical topics have either appeared or are in press from this department during the year.

CURRICULUM

The present academic year started on September 26, 1946 as far as regular instruction was concerned. The first and second year classes took up where their work had been stopped in June for the summer vacation. Commencement was held on March 28, 1947. On March 31, 1947, the class, which had finished the third year a few days previously, entered upon the fourth year work. This class will graduate on March 26, 1948. Beginning in September, 1948, all classes will be on regular schedule.

While there were no major curriculum changes, in each department, minor changes are made each year in the conduct of instruction. At times statements are made that there have been no changes in curriculum in the last twenty-five years. As far as our institution is concerned, this is not true. Before the war, we made some rather major changes in the work of the second, third, and fourth years in order to improve the instruction of the clinical years. These have worked out rather satisfactorily. If any one criticism were to be made in our curriculum, it would be that there are too many scheduled hours and not enough elective time. Another one would be that there is too much duplication and repetition in the offering of the different respective departments. Efforts have been made to reduce this but that some still exists must be admitted. In the evaluation of any curriculum, the primary consideration should be the quality of instruction, the facilities for instruction, and the qualifications of the staff engaged in teaching. It is in this consideration that improvement has come in medical education in this country and not in the basic structure of the curriculum alone.

In some quarters, there is pressure for a change in the basic philosophy of the curriculum. It is argued that present instruction is too compartmentalized by presentation in the various departments and that what is needed is a vertical approach, for example a presentation of the anatomy, physiology, pharmacology, pathology and bacteriology, diagnosis and treatment of diseases of the cardiovascular system. There are some experiments along this line which are being viewed and evaluated with great interest. However, this type of instruction is expensive in respect to the time of the teaching staff, and experience alone will tell whether it is to be preferred to our present system. It is forgotten that there is considerable integration and coordination in our present teaching and that one of the best integrators should be the individual student.

It is to be hoped that in the near future, some of our preclinical departments will

provide opportunities for some of our students to spend a year between the second and third years of medical instruction as assistants or fellows in research and teaching such as has been done so successfully in a number of our medical schools like Rochester, Northwestern, and others. Such an experience has proven of great value to the students who have had this opportunity when they have progressed into the third and fourth years and into graduate training. It has helped in the recruitment of teachers and investigators in medicine, a lack which is so apparent in many areas of medical education.

INTERNSHIPS

Just as the quality of undergraduate medical education is of great importance in the training of a physician, likewise is the standard of his subsequent hospital experience of greatest significance. A superior grade of undergraduate medical education may be undermined if the internship and residency is of poor quality. Likewise a poorer quality of undergraduate experience may be greatly strengthened by a superior hospital training. In our own institution every effort has been made to help our students obtain internships in high standard teaching hospitals. An analysis which has been made recently in this area has been gratifying in what it has shown about the type of internships Cornell graduates have obtained.

A new arrangement for internship placement was worked out in October, 1946, by the Committee on Internships and Residencies of the Association of American Medical Colleges and has had the approval of the Association of American Medical Colleges, the Council on Professional Practice of the American Hospital Association, the Council on Medical Education and Hospitals of the American Medical Association, and the Catholic Hospital Association. The details of the plan are as follows: 1) That letters of recommendation by faculty members as a hospital requirement should be eliminated, all information about applicants being centralized in the deans' offices and credentials sent out from there; 2) that hospitals be requested to eliminate statement from intern application blank that the student will agree to accept if appointed; 3) date for filing application and release of credentials by the medical schools be set at October 15, 1947; 4) appointment date by hospitals, not before November 15, 1947; 5) no specific waiting period following announcement of appointments. Hospitals will be requested to notify all applicants of acceptance, alternate position, or rejection (with the understanding that notification of rejection may be made by the hospital at any time); 6) Notification is to be sent to the hospitals that it is anticipated that dates for filing release of information and appointment will be moved farther into the senior year in 1949.

In order that all the departments will participate in the formulation of the letters of recommendation for each individual student, a Committee was appointed to be known as the Faculty Credential Committee on Internships. It consists of Dr. Dayton J. Edwards, Chairman, and Drs. Robert Watson, Samuel W. Moore, Carl T. Javert, Edwin J. Doty, Samuel W. Dooley, Wilson G. Smillie, and Thomas P. Almy.

VETERAN TRAINING

A special office has been set up to handle all veterans and their dealings with the Veterans Administration. This has been under the supervision of one of our own veterans, Mr. Robert Callahan who is directly responsible to Mr. E. K. Taylor, our Business Manager.

No. of veterans	Agency	Total Amount Billed Agency
257	U. S. Veterans Administration	\$113,689.78
2	Dept. of Veterans Affairs (Canada)	667.66
8	University of the State of New York (Veterans Scholarships)	2,800.00
<hr/> 267		<hr/> \$117,157.44

Of the 267 veterans' cases handled, 129 were closed out during the year, either because the veterans had completed their training, used all their entitlement, or dropped from school. Forty-four were regular medical students and the others were special students.

Of the veterans enrolled during the present fiscal year, 128 will continue their training after June 30, 1947. These are as follows:

Special students.....	20
1st year.....	33
2nd year.....	45
4th year.....	30

During this coming year, there will be additional cases among the entering first-year class and new special students. In all, there were 94 special students who completed training during the year.

A majority of the cases handled required considerable correspondence as time went on because of red tape entanglements, doubtful eligibility, changes in marital status, etc. A conservative estimate, based on the number of postage stamps used in this office during the year would be that 900 separate pieces of mail were addressed to the Veterans Administration. It is impossible to estimate the number of telephone calls and the number of visits made to this office by veterans. It is safe to say that over 300 problems were discussed and solved during the year.

COLLEGE MAINTENANCE

The various activities in College Maintenance have been under the supervision of our Business Manager, Mr. E. K. Taylor. Problems related to student housing, veterans affairs, acquisition of surplus property, and the securing and holding of personnel have added greatly to the work of this office.

Funds available for all purposes showed little change from the previous year in spite of the fact that government contracts under O. S. R. D. terminated during the year, and restricted gifts from other sources increased approximately the same amount.

Comparative figures for 1945-46 and 1946-47

	1945-46	1946-47
Academic Budgets.....	\$825,390	\$850,887
Administrative and Service Accounts.....	161,686	151,836
Administrative Restricted Funds.....	23,992	36,062
Special Fund for Research Received.....	88,148*	56,675
Restricted Gifts Received.....	413,127*	570,485*
O. S. R. D. Reimbursements.....	170,337*	
	\$1,682,680	\$1,665,945

* Figures for 11 months only.

	1945-46	1946-47
Total number of orders placed.....	9,740	8,168
Total number of checks issued.....	12,742	10,493

Student Housing

The temporary buildings provided through the Federal Public Housing Authority were completed and occupied during December and January. The buildings are providing adequate quarters for the students as a temporary measure.

Plans have been completed and action is now being taken to raise the necessary funds to complete a permanent student residence. In the meantime everything possible is being done to provide clean, comfortable quarters for the students.

Maintenance and Repairs

A considerable amount of deferred maintenance has been started throughout the Medical College buildings. A painting program will be carried out this summer together with numerous other small jobs that need attention.

In general the building is in a good state of repair and after the summer's program has been completed, we expect to be back on a more normal basis. Costs for heat, light, power, and other services continue to mount. It is only through the

efficient operation of the New York Hospital Power Plant that we are able to keep these expenses down to a minimum.

	1945-46	1946-47
Heat, light, and power	\$40,328	\$43,800
Repairs and maintenance	9,411	9,824

Personnel problems continue to be difficult. Trained personnel are still in short supply. We are hoping that this condition may be eased somewhat by early Fall.

A considerable amount of time has been spent in an effort to obtain surplus property through the United States Government. Every effort has been made to make and continue proper contacts with the various government agencies. We have already received a generous amount of office furniture, some laboratory supplies and equipment, and we expect that some additional scientific and research apparatus will be available in the near future especially in the field of electronics.

SUPPORT ACTIVITIES

Our restricted gifts totalled \$605,977.45 (for 12 months; this does not include a sum of \$31,000 due from the Navy and other government agencies for work already completed) as compared with a total of \$633,486 of the previous year. The latter sum included over \$170,000 of OSRD reimbursements which were not forthcoming during the present academic year. However, as the reports from the various departments indicate, we have received funds from the Naval Research Bureau, Army Chemical Warfare Service, the Surgeon General of the Army, the U. S. Public Health Service, and the Veterans Administration.

We are grateful for this continued support of the foundations, industry, and private donors and for the amounts received from governmental agencies. It is to be noted and regretted that some of the foundations are no longer giving grants-in-aid for research and are leaving this function to governmental agencies. The U. S. Public Health Service has done a fine service in the grant-in-aid field during the past year. However along toward the end of this year, notices were sent to us stating that a number of grants had been reduced by 15% and that funds were not available for a number of the new projects. As this report is being written, we have received word that some of the latter will be given support. It is to be hoped that our help from governmental agencies will not be sporadic and subject to change on short notice because research done under these auspices will necessarily be piecemeal and short in duration. It makes difficult long-term research planning.

ALUMNI ACTIVITIES

For the year ended in March of 1947, Dr. Connie M. Guion '17 served as President of the Cornell University Medical College Alumni Association. The other officers were: Dr. Willis M. Weeden '19, Vice President; Dr. Mary M. Crawford '07, Secretary; and Dr. Paul Reznikoff '20, Treasurer. Dr. Guion and Dr. Nelson Cornell served as the Alumni representatives on the Medical College Council. Miss Mary E. Gleason has continued as full-time Secretary in the office of the association in the college. A sum of \$11,099.75 was raised for the Alumni Fund in comparison with \$5,074.50 of the preceding year. For the past year Dr. David N. Barrows '12 and Dr. Willis Weeden '19 have continued with their fine work in the editing of the Alumni Quarterly, and Dr. Barrows sponsored the work for the contributions to the Alumni Fund which was more than doubled this past year.

Marking the 49th Anniversary of the Medical College, Alumni Day was held on March 13, 1947 with Dr. William D. Stubenbord '31 as Chairman of the Committee. Morning clinics were held in the different clinical departments, giving the Alumni an opportunity to see the school in action. Nearly 200 of our Alumni were guests of the New York Hospital for luncheon in the Nurses' Residence. Immediately following the luncheon, Dr. Guion presided over the business meeting. After the business was transacted, Dean Hinsey was called upon to give a résumé of the activities of the past year. The following officers were elected for the coming year: Dr. Willis M. Weeden '19, President; Dr. William D. Stubenbord, '31, Vice President; Dr. Mary M. Crawford '07, Secretary; and Dr. Paul Reznikoff '20, Treasurer.

The annual banquet was held that night at the Grand Ballroom of the Roosevelt

Hotel and 627 Alumni and guests attended. Between courses, Dr. Guion announced the drive for funds for a student residence and recreational center. Following the dinner which was interspersed with excellent entertainment provided by our students and Alumni, President Day gave an address on present-day world problems.

Dr. Connie Guion and Dr. Willis Weeden have been appointed as Alumni representatives on the Medical College Council for the coming year. I wish particularly to commend the work of our Alumni for two parties given to students during the year, an evening one for new first-year students on October 4, 1946, and an afternoon one for the third-year class on February 19, 1947. A great deal of work was given to the planning and execution of both of these affairs and it is gratifying to see such gatherings bringing students, Alumni, and staff closer together. After all, they are students together and should know each other better. It is my opinion that these are forerunners of what can be done much more effectively and more often when we have our own residence here in the Center. The Dean continued a tradition started several years ago by entertaining the fourth-year students together with Alumni and staff at what has been given a dignified term, "Dean's Reception", on the evening of the last day of fourth-year examinations. I am very appreciative of the continued help I have received from our Alumni during the past year and have particularly enjoyed the visits I have received from those who have dropped in from time to time.

DEVELOPMENT AND NEEDS

Reference has been made to the temporary housing that has been provided for our student body. Progress has been made in the drive for funds for a new residence announced by Dr. Connie M. Guion at the annual Alumni dinner. I wish to pay tribute to Dr. Guion for the part she has played in the inception of these plans, in rallying the Alumni in their support, and for her unselfish devotion to the prosecution of the drive for funds. The University has purchased a plot on the south corner where 71st Street meets the East River Drive. The fund raising campaign has been approved by the Trustee Committee on Planning and Development and by the Board of Trustees of the University, an appropriation has been made to cover the initial expenses of the drive, the firm of Reuel Estill & Co. has been appointed to organize the work and they started on June 16, 1947, the University has named as architects the firm of Coolidge, Shepley, Boullfich & Abbott of Boston, Mass., and a steering committee under the chairmanship of Dr. Preston Wade is at work.

In our campaign we are committed to raise the money for a residence which will serve as a home for our students and as a recreational and social center for our students, staff, and alumni. This residence should be right in the center and it was for this reason that we bought the plot described above. In addition, a sum will be raised to help to meet our current annual deficit of over \$100,000 during the period of the next five years. At the end of this campaign, I recommend that an organization be set up to make an annual drive for funds and to cultivate annual giving to the medical college by its friends both inside and outside the Alumni group. Such an organization could help with the annual Alumni Fund at the same time it was extending its activities into other areas. In a communication I sent you on January 7, 1947, I outlined the needs for additional endowment support that about equaled our present endowment. This is support that we must have if we are to go forward. If a substantial sum can be raised by annual giving, such funds could represent the income on considerable endowment. It is needless for me to state that our financial needs are greater now than they were outlined in my last report. During the past year, the general needs for additional financial support for the basic program of medical education in the institutions over the country have been given wide and effective publicity. If the quality of medical care is to be maintained and improved, the prime consideration is adequate support for the keystone of American medicine, our medical schools.

Attention should be called to our responsibility in giving better support to our services at Bellevue Hospital. Our medical division there has been greatly improved because of the grant which has been given by the Kellogg Foundation. This will continue for another year and a half and then we must look for other funds. Our support of the Surgical Division there has been very inadequate. In order to do the right kind of a job there, we should put about \$50,000 a year into these two services.

There are three areas in which developments have been made in the field of Cancer during the past year. I have referred to the starting in September of a Detection Clinic at the Kips Bay-Yorkville Health Center which will be supported by the New York City Cancer Committee. At the last meeting of the year, the Joint Administrative Board approved the organization of a Tumor Clinic in the New York Hospital along lines that will meet the approval of the American College of Surgeons. On December 13, 1946, the Dean received a communication from the Secretary of the New York City Cancer Committee of the American Cancer Society offering to provide a sum of \$15,000 a year for five years in support of a James Ewing Chair in Neoplastic Diseases. The establishment of such a chair was approved by the Joint Administrative Board and by the Board of Trustees of Cornell University. The award of the first annual amount has been made and awaits appropriate administrative approval. According to recommendations in a report made by a Committee of the Executive Faculty, such a Professor should be a member of the Department of Pathology and his duties would include (1) the institution of research programs in the general fields of cancer; (2) the strengthening by all available means of the teaching of neoplastic diseases at Cornell, with the utilization to the fullest possible extent of the facilities available at Memorial Hospital; (3) to further the institution of graduate instruction under the auspices of Cornell University Medical College and Memorial Hospital as circumstances will permit; and (4) to further the development and institution of methods for the early diagnosis and prevention of neoplastic diseases.

The work at Memorial Hospital has been progressing very well. Increased emphasis and financial support has been given to their educational program which has been under the direction of Dr. Bradley Coley. A new program of instruction for our undergraduate students will be put into operation this coming fall. The Strang Memorial Clinic under the direction of Dr. Elise L'Esperance will be in new quarters on the 67th Street side of the Memorial Hospital in the near future. This work in early detection and prevention of cancer has grown in size and the service that it renders year after year and has pioneered in this most important field of medicine. Dr. C. P. Rhoads, the Director at Memorial and at the Sloan Kettering Institute, has brought together his staff for the Institute during the past year. Many of them have been working in temporary quarters here and there but the new Institute building will be ready for occupancy this next fall. The basement of the James Ewing Memorial Hospital is in preparation on First Avenue between 67 and 68th Streets. Ground was broken for this 300 bed hospital on January 24, 1947. This hospital will cost over 3 million dollars and will be completed in 1948. It will be constructed of red brick to match the existing Memorial Hospital and the new Institute building. Memorial Hospital made the land available for the city's new institution and the medical and professional staff will be appointed on nomination by Memorial Hospital. New York City will maintain and operate the hospital, and its purpose will be the care and treatment of long-term cancer patients and research.

We are pleased to announce the starting of the Institute of Child Development under the direction of Dr. Milton Senn this coming academic year. This will be a project of participation by the Departments of Pediatrics, Psychiatry, and Public Health for the purpose of learning about and broadening instruction in the fields of physical and emotional growth and development of infants and children, child care, and child rearing in an integrated fashion to medical undergraduate students, pediatric and psychiatric house staff, Commonwealth Fund fellows in pediatric-psychiatry, fellows in child psychiatry and in public health, and practitioners of medicine (especially pediatrics and public health) as well as undergraduate and graduate students in nursing. This Institute is conceived as a development of integration among existing departments and will not lead to the formation of a separate department. The main financial support for this enterprise comes from the United States Public Health Service under the National Mental Health Act. This development will help facilitate the work which Dr. Senn has carried on with a number of his colleagues over a period of years.

The establishment of a Diagnostic Clinic in the New York Hospital was approved by their Board of Governors. The plans for this enterprise were developed by a Medical Board Committee of which Dr. David Barr has been chairman. This clinic is to be established for diagnostic service to ambulant patients who can afford

to pay more than outpatient department rates and will limit its activities to diagnosis and to health examinations. The responsibility for treatment will be in the hands of the referring physicians. The treatment to those patients who come without a physician will be limited to recommendations of appropriate physicians or surgeons under rules to be outlined by the Medical Board. Plans to provide space for the opening of this clinic are under consideration.

Steps have been taken to strengthen the work in Otolaryngology by providing additional funds for this sub-department and by placing it in charge of Dr. James A. Moore who will work on a geographical full-time basis. Likewise our sub-department of Orthopedics has been put under the direction of Dr. Frederick L. Liebolt. Plans are progressing satisfactorily for the affiliation with a leading orthopedic hospital which will eventually build right here in our center.

We are grateful for the continued cooperation of the authorities of the New York Hospital with Mr. William H. Jackson serving as President of the Society of the New York Hospital and its Board of Governors. On the recommendation of the Joint Administrative Board the Board of Governors of the New York Hospital and the Board of Trustees of Cornell University appointed Dr. Stanhope Bayne-Jones to the newly created position as full-time President of the Joint Administrative Board. Dr. Bayne-Jones comes to us from Yale University where he was Dean from 1935 to 1940 and Professor of Bacteriology since 1932. During the war he served as a Brigadier General in the Army Medical Corps. He will assume the leadership in the future planning and development of our Joint institution.

It is a pleasure to express my sincere appreciation to you, to the members of the Board of Trustees, the Medical College Council, the Joint Administrative Board, our Alumni and Staff for their support and cooperation. I am particularly indebted to Mr. Arthur Dean, Chairman of the Law Committee of the Board of Trustees, for his help and guidance in difficult matters that faced us during the past year.

JOSEPH C. HINSEY,
Dean, Cornell University Medical College.

APPENDIX XI

REPORT OF THE DEAN OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR: I have the honor to report herewith on the work of the New York State Veterinary College for the academic year 1946-1947.

During this first postwar year we have gradually moved into a normal peacetime schedule. During the summer of 1946 both faculty and students were refreshed and rested by a break in the year-around teaching schedule of the war years. The work done by both groups during the present academic year was the better because of it.

Since only a few veterinary students had their academic careers interrupted by military service, there were no serious problems in fitting veterans into the curriculum at the points where they left off. We have had only three classes during the past two years because of the way that the wartime accelerated teaching program was discontinued. This situation will continue through 1947-1948, but the following year will see a full complement of classes.

A CRISIS IN VETERINARY EDUCATION

For the last twenty years there have been but ten veterinary colleges in the United States. For a decade following World War I, these schools had difficulty in finding enough students to fill their classes. About 1930, there developed a quickened interest in this profession and within a few years thereafter all of the colleges had to adopt systems of selective admissions to pick out those to be admitted from groups of

candidates much larger than could be accommodated. The raising of admission standards to include one year of general college work (the pre-veterinary collegiate year) did nothing to discourage candidates for the numbers increased year by year up until the time of World War II. So far as this college is concerned, the number of applicants gradually increased from year to year until about 1940 when the ratio between total applicants and the number that could be accepted was 8 or 9 to 1. There was a falling off of numbers of candidates during the war years but it never fell below a ratio of 4 to 1.

Last year, just after the end of the war, the full impact of veteran candidates was not felt. The ratio rose again to about 10 to 1 and if late applicants had been considered it would have been much higher. This year we have the largest number of qualified candidates that we have ever considered, the total being about 750. In spite of the fact that we expect to accept twenty per cent more in the entering class than usual, we still have a ratio of about 15 to 1. About one half of these candidates are not residents of New York State. Since we are reserving the greater part of the available places for New York residents, the out-of-state applicants will have about one chance in forty of being admitted.

This situation is true in varying degree in all of the veterinary colleges of the country. Since all of them are supported by states, they must all give special consideration to their own residents. This means that boys who happen to live in states where there are no veterinary schools have relatively little chance of obtaining a veterinary education. Many who want this opportunity are veterans. These have the sympathy of influential people who have started agitations in many states where veterinary schools do not now exist to form new schools. This has resulted in newly organized veterinary colleges in Georgia, Oklahoma, Missouri, and Minnesota. Both Illinois and California are committed to new schools but neither plan to open them before 1948 and possibly later. Serious consideration was given to the matter by the legislatures of Massachusetts and Wisconsin but no decisions were made in 1947. There is active interest in the matter in still other states.

Six new institutions are now competing with the ten old-established schools, for veterinary specialists. The number of qualified specialists is distinctly limited. Those responsible for some of the newly-created schools have realized that their faculties will have to be recruited largely by raiding those of the established schools, and in order to be able to bargain successfully for personnel they have set up salary scales that average considerably higher than those of the old schools. If the older schools are to maintain their prestige and efficiency, they will have to increase their salary scales to a competitive level.

Before the war the salary level of this school was as high as any of the schools of the country, and higher than most. It is still in a relatively favorable position so far as our key men are concerned, but our younger men are vulnerable to offers from the new institutions and we are in danger of losing some of our best men—the men who should be operating the school a decade hence—unless we can meet the challenge. We cannot afford to lose many of these men. Administrative promotions will attract some of them elsewhere, but we should not lose them because of salary differentials. The line-item budget system of the State of New York does not provide as much flexibility as is needed in situations of this kind to enable the administration of the college to meet staff emergencies. The budget officers of the State have been cooperative and generally willing to go as far as the laws will permit in meeting these emergencies.

THE NEW CURRICULUM

We are gradually moving into a new teaching curriculum which represents a rather radical break with old traditions. We have now graduated the last class under the old curriculum; next year all classes will be under the new.

The new curriculum not only includes more work in nutrition, roentgenology, medical botany, genetics, food hygiene, and public health, and virus diseases but it initiates a radically new method of clinical teaching. The newness of the method is in its application to the teaching of veterinary medicine. The method has been used successfully in medical schools in this country for several decades. Under the new plan the final year of the four-year course will be given over almost wholly to clinical teaching and the case-method will be introduced. Didactic teaching

methods will be largely abandoned during this year and the students will be required to devote their full time to the study of cases, applying to the problems of diagnosis and therapy what they have learned in their basic disciplines. The method is *learning by doing* rather than *learning by watching others doing*. The new method requires more staff supervision. In preparation for this the clinical staff has been enlarged during the last two years.

ADMISSION REQUIREMENTS

The need for a better fundamental education has been felt in the profession for some years. Veterinary education is highly technical, and the increase in knowledge of many aspects of medicine has gradually crowded out almost everything from the curriculum except the technical subjects. Even the pre-veterinary year is nearly half occupied by technical subjects—chemistry and zoology.

Serious consideration is being given by all veterinary schools to the addition of another year to the preparation for the profession. The veterinary school of the University of Pennsylvania already requires two years of pre-veterinary training for admission. Both Illinois and California have announced six-year courses. Many of the European veterinary schools have had six-year courses for many years. A faculty committee is studying the proposal and is likely to recommend that two years of pre-veterinary training be required for admission in the near future.

THE REGIONAL LABORATORIES

During the past year new laboratories have been established at Kingston, Canton, and East Aurora, and the laboratory at Farmingdale has been expanded for new service. At Kingston and East Aurora, poultry diagnostic units under the direction of capable poultry pathologists have been installed. Such a unit has existed at Farmingdale for many years and there is one at the college in Ithaca, making four in all. At the four places mentioned, mastitis control laboratories have been set up and are now in full operation. Each has a veterinary specialist in charge with technicians and other supporting personnel. These new services have been well received and are so well patronized that there is a strong demand for more personnel to speed up the work that is being done. These laboratories serve principally as diagnostic centers but research data are being accumulated through them and studied in the central laboratory in Ithaca.

THE CLINICAL AND LABORATORY SERVICES AT ITHACA

Since the earliest days of the college, special services have been maintained for improving the animal disease control work throughout the state. The clinical staff is constantly being called into consultation by veterinary practitioners to assist on problems that baffle them. In our hospital and in the ambulatory clinic large numbers of patients are treated each year. The primary purpose of this work is the teaching of students, of course, and a large and varied clinic is of inestimable value for this purpose. The clinical accessions for the past year, when finally tabulated, will show at least as many cases as were ever treated before in a single year.

The diagnostic laboratories have been equally well patronized. All sorts of pathological, bacteriological, and serological tests are conducted on materials sent us from the field. During the past year the general diagnostic laboratory has had an unusually heavy load because of the numerous animal brains that were sent in for examination for rabies. For the first eleven months of the year 1218 specimens were examined of which 723 were positive. This is the greatest number examined during any such period in the fifty-year history of the laboratory. Fox brains were most numerous, followed by cattle brains and then by dog brains. This is an unusual situation since dog brains usually make up the majority of specimens submitted for examination for this disease. A large part of the specimens came from the Chenango Valley in the central part of the state where rabies is enzootic in foxes at the present time. There the disease undoubtedly is spread largely by rabid foxes, dogs apparently playing only a minor role probably because the majority of them have been immunized against the disease.

The poultry disease laboratory in Ithaca has devoted much time to the specific recognition of outbreaks of Newcastle disease, a damaging virus disease which was introduced only about three years ago.

RESEARCH ACTIVITIES

A detailed report on the various research activities of the staff will be reported more fully later in the report for the legislature. Space will not permit here of more than brief mention of some of them.

During the war years, the extra teaching loads and lack of many materials hindered the research activities of the staff. These obstacles have been removed but now another has appeared. This is the extreme scarcity of young men for the secondary staff positions, and a shortage of graduate students. Young graduates in veterinary medicine are in such demand and the compensation available to them is so great that few elect to accept the small salaries of the minor positions and the fellowship stipends that institutions can offer. None of the veterinary schools of the country have been able to keep all of their staff positions filled. Major vacancies exist in many of them. We have no vacancies in major positions but we do have a number of unfilled positions in the minor brackets. Some of these have been vacant for a year or more. The lack of personnel for these positions throws the load of routine work on the major professors, and deprives them of the research helpers that they are accustomed to have.

In competing with some of the other veterinary colleges for young staff members we are at a considerable disadvantage in that we are unable to offer comparable salaries to those who wish to complete graduate work. Some of the mid-western schools are able to offer the rank of Assistant Professor and salaries of \$3000 or more and still permit the incumbents to register for graduate credit. At Cornell, no one who holds the rank of Assistant Professor, or above, may take graduate work.

The research work of the college centers around a number of longtime projects of which bovine brucellosis, bovine mastitis, sterility and breeding diseases of cattle, parasites and parasitic diseases of all animals, and diseases of poultry are the principal subjects. Incidental problems constantly arise and these are given attention as their importance merits. During the past year, for example, a serious infectious disease of dairy cattle appeared near Ithaca. It was shown to be caused by a filterable virus and its pathology was fairly well worked out. Since it had never before been described or named, it was called Virus Dysentery of Cattle.

FACULTY CHANGES

There have been only a few faculty changes during the past year. At the end of the fall term, Dr. Earl Sunderville, Head of the Department of Anatomy, retired from active service and was elected Professor Emeritus. At the end of the year Dr. H. J. Milks, Professor of Therapeutics and Small Animal Diseases, and Director of the Small Animal Clinic became Professor Emeritus. Assistant Professor Walter J. Gibbons resigned at midyear to accept a position as Director of the Clinics in the Veterinary School of the Alabama Polytechnic Institute. Associate Professor Alexander Zeissig was away the entire year on leave of absence, while serving the State Health Department in its drive to control rabies in the state.

In February of last year, the Dean of the College, at his request, was relieved of his duties as Head of the Department of Pathology and Bacteriology and Dr. Peter Olafson, Professor of Pathology, was promoted to this position. Associate Professor Malcolm E. Miller was promoted to a full Professorship and became Head of the Department of Anatomy upon the retirement of Dr. Sunderville in February. Associate Professor D. W. Baker was promoted during the year to be Professor of Parasitology, and Assistant Professor Stephen J. Roberts to be Associate Professor of Medicine and Obstetrics.

New appointments included Dr. James M. Murphy, as Professor of Veterinary Research in charge of the laboratory phases of the State Mastitis Control program; Dr. E. N. Moore as Associate Professor of Poultry Diseases in charge of research on diseases of turkeys; Dr. Francis I. Reed, Dr. Edgar W. Tucker, Dr. Howard J. Bly, and Dr. Kenneth Gumaer as Field Veterinarians, in charge of the Mastitis Control Laboratories at East Aurora, Kingston, Canton, and Farmingdale, respectively.

THE PHYSICAL PLANT

Our experiences with the new virus disease of cattle and the Newcastle disease of poultry emphasized our need for a specially constructed building for the safe handling of such agents. A special request was made to the legislature for funds for such a building to be built on the Veterinary Experimental Farm and they were granted in the Supplemental Budget. Plans for its construction are being drawn and it is hoped that it may be built during the latter part of the present calendar year. This building will not be large or elaborate but it will provide facilities for rigidly isolating groups of animals from each other and from other animals outside so that highly infective agents may be kept under control. It should prove very useful throughout the years.

Work is under way on the remodelling of the first floor of the Farriery Building to adapt this space for better use as isolation quarters for large animal patients and for use as an experimental surgery for large animals. Additional funds were made available this year for complete remodelling and modernizing of our Small Animal Clinic building. Besides extensive rearranging of the facilities in this building to adapt it to modern practices, it is planned to install refrigeration equipment, a new ventilating system, and a completely new set of kennels.

The architect's plans for the second large building for the College to be constructed with funds assigned from the State Postwar Building Fund are nearly completed. This building will replace the two wings of the present James Law Hall as well as the old surgical clinic building. It will provide new quarters for the Department of Anatomy, the Department of Surgery, and the Large Animal Clinic, and the Flower Library. It will also include a new auditorium seating about 550 persons.

NEEDS OF THE COLLEGE

General increases in cost of nearly everything required for teaching and research, and the gradual acquisition of new administrative duties in connection with larger service programs require larger maintenance funds than are now available and these will be requested in the new budget requests. We are not anticipating asking for any new major staff positions in the immediate future but additional non-technical personnel will be requested in order to relieve the more expensive professional staff members of many routine duties in order that they may use their talents and training more effectively. In general, the Universities have not appreciated so well as the research foundations and commercial laboratories the economies achieved in employing an adequate staff of technicians for this purpose, but have relied largely upon assistants who are graduate students. Universities must continue to employ assistants in this way in order to discharge their function as trainers of future scientists, but there are many routine duties in connection with research that have little training value and which can be done better and more economically by intelligent lay help.

So far as buildings and equipment are concerned, we shall be well provided for when the postwar building program is completed. When this work will be begun is not known.

W. A. HAGAN,
Dean of the Veterinary College.

APPENDIX XII

REPORT OF THE NEW YORK STATE COLLEGE OF
AGRICULTURE AND THE CORNELL UNIVERSITY
AGRICULTURAL EXPERIMENT STATION

To the President of the University:

SIR: I have the honor to submit the report of the New York State College of Agriculture and of the Cornell University Agricultural Experiment Station for the fiscal year 1946-1947.

The past year has been characterized by further reconversion of the College's wartime program to meet agriculture's postwar needs. There has been no cessation in the requests from farm families of the State for more help in the three major fields of teaching, research, and extension. Rather, the demands have increased, probably because of the realization that more people trained in the field of agriculture, more information based upon sound research, and wider dissemination of such knowledge by the Extension Service are fundamental to the continued prosperity of farming in New York.

RESEARCH

Approximately 20 per cent of the research projects under way in the Experiment Station are completed each year. The following examples include some of the more important results obtained during the past year. A more complete coverage of the program is contained in the Annual Reports of the Colleges of Agriculture and Home Economics to the Governor and the Legislature.

Additional research on the cost of producing milk has indicated ways in which dairymen can increase their labor returns. Some of these factors include larger herds to fully utilize family labor, use of better land, greater mechanization, more efficient utilization of labor, use of the most economical dairy feeds, and reducing disease in the herds. Full use of pastures and other roughages for dairy cows has been especially emphasized.

The need for lowering production costs and increasing labor efficiency is resulting in a continuing trend toward more use of machinery on New York farms. Figures compiled for 1945 show only 229,000 horses and mules on farms in the State, while tractors have jumped from 7000 to 78,000 in 20 years. In recent years, the cost of plowing an acre with horses was \$4.98; with a tractor it was only \$1.42. To reduce tractor costs, it is important to have enough productive work to use the tractor at least 400 hours a year. When it is used more, the cost per hour decreases. In some instances, this may mean doing custom work off the farm.

Time and motion studies have indicated that in caring for 1000 hens, some farmers spend less than half an hour a day, whereas others spend two hours a day. Poultrymen who spent the least time had large sized pens, did more than one job on each trip to the pen, and cut down on the number of jobs to be done by using automatic waterers and other labor savers. The time records show that these and other practices helped the poultryman cut his daily chore time. The studies have demonstrated also that similar savings can be made in the time taken for cleaning, grading, and packing eggs, in cleaning out the pens, and in most of the other jobs done on poultry farms.

Interest in more effective methods of weed control is increasing with each season. Experiments with a flame cultivator have shown that practically all weeds in corn can be killed without injuring the crop, provided that the corn is several inches taller than the weeds at the time of the flaming. Other crops to which flame weeding may be adapted are set onions, seed onions over 12 inches high, potatoes, lima beans, and deciduous nursery stock with stems one-fourth inch in diameter or larger and with no foliage close to the ground. The preliminary tests tend to support the view that after the first weed crop has been killed by flaming, there will be no more weeds during the season. This method of weed control shows only fair possibilities in green

beans, tomatoes, beets, cabbage, cauliflower, and Brussels sprouts. Results from soy beans, spinach, peas, peppers, and evergreen shrubs were poor.

Research has been under way on the use of aircraft for applying fungicides and insecticides to various crops. During the past year, airplane dusting of potatoes resulted in an average increase of 53 more bushels an acre than from ground-dusted field. The difference, however, was attributed largely to wheel damage in ground-dusting. Studies on dust distribution indicate that a 30-foot swath should be used. Best results came from low flying, from three to four feet over the foliage, and at the slowest speed consistent with safe operation of the plane.

The development of a new electronic method of grading and sorting eggs promises to revolutionize the established egg-grading system of the country. The equipment sorts eggs according to their internal quality and also their future perishability, neither of which can be done fully by present procedures. The method is mechanical and can be made entirely automatic; its evaluation of the egg is unaffected by shell color or yolk color; it is highly sensitive and can distinguish several quality gradations in fresh eggs; and it can be used to evaluate eggs for marketing, for processing, for cold storage, for hatching, and for identification of good breeding hens.

A first-generation hybrid tomato that will produce higher early yields than existing varieties is one of the newest contributions made by the plant breeders. The new hybrid is a cross between the Earliana and Valiant varieties. During 1946, for the first two pickings, the new hybrid yielded 1600 pounds per acre, or nearly double the yield of Valiant, the most widely grown early variety in New York State. This increase in yield is due to the fact that the hybrids set more fruit on the first clusters, and they ripen more rapidly than do those on earlier varieties.

The "stiff-lamb disease", or muscular stiffness of young suckling lambs, is an ailment that has caused considerable loss to sheepmen of the country. The trouble is due to malnutrition, and in the Northeast is found mainly in flocks fed alfalfa or clover hay, and among lambs born in February, March, and April. The disease may be cured or its occurrence prevented by giving the lambs vitamin E. Experiments conducted during 1944, 1945, and 1946 showed that a diet of alfalfa and cull beans produced "stiff" lambs in 60 per cent of the animals. This was reduced to 26 per cent when oats and barley were added to rations. Less than one per cent of the lambs were affected when vitamin E was fed to them.

Chrysanthemums are one of the most popular flowers grown and sold in the Northeast. Unlike many other ornamentals, chrysanthemums have not been bred to flower at all times of the year. Research conducted during the past two years has demonstrated that by controlling both the temperature and the length of day, it is possible to produce chrysanthemums at any time of the year. An accurate schedule has been worked out which will enable the grower to have chrysanthemums when he wants them.

The cause of the development of tallowy flavor in fresh milk—long a problem of great importance to the dairy industry—has finally been traced to the reaction involving the rate of loss of ascorbic acid (vitamin C) in the milk. Market milk contains two forms of vitamin C—ascorbic acid and dehydroascorbic acid. The reaction that causes the breakdown of fats in the milk, and thus results in the development of the tallowy flavor, can be inhibited by quick and complete oxidation of ascorbic acid to dehydroascorbic acid, and by the subsequent heat treatment in pasteurization. Using this procedure, fresh milk has been kept in good condition at ordinary refrigeration temperatures for as long as two weeks without loss of palatability. This research promises to be very useful in the powdered-milk industry. It may apply also in other fields, such as citrus juice preservation, and that of certain meat products.

Varieties of oats grown in New York State have suffered serious losses from two diseases, rust and *Helminthosporium*. A newly developed variety called Mohawk promises to solve this problem. The new oat has a much stiffer straw than the Vicland variety, is more resistant to rust and *Helminthosporium*, and is a better yielder.

The sprouting of potatoes in storage has been a serious problem confronting growers for many years. A liquid chemical called methyl ester will prevent sprouting. Last year, 500,000 bushels were treated in New York State alone. The chemical can be used in either dust or liquid form.

Other serious potato problems are the late blight and scab diseases. Blight-

immune and scab-resistant varieties of potatoes have been developed and are now being made available to New York State growers. The several varieties will meet the varying climatic conditions of the State. Consideration has also been given to yield, appearance, and cooking quality.

Dairy farmers in New York saved \$487,500 in feed costs and received \$725,000 additional in milk sales in 1946 through the artificial insemination of 65,700 cows. An average of only 34 bulls were used during the year, thus replacing 3250 bulls, costing an average of \$150 each to feed. The increased milk production resulted from the use of superior sires. These benefits to dairymen were made possible by the application of recent results of research on artificial insemination.

Various treatments of trees and of harvested fruits have been studied in an attempt to reduce the tendency of stored apples to develop scald, a surface disorder characterized by browning of the outer cells of the fruits. Nitrogen applications to the soil did not have a material effect on subsequent scald development. Maturity of fruit at harvest was a factor in certain varieties, with the relatively immature apples developing more injury than riper ones, but the difference was not enough to provide control. A wax emulsion coating gave good results, equal to oil paper on properly ripened fruit. It was found that the vapors given off by ripening apples increased scald on susceptible varieties. This can be controlled by conditioning the air of the storage chamber with activated carbon.

EXTENSION SERVICE

Extension activities during 1946 were characterized by intensive effort to make concise plans for better coordinated policies and programs for the postwar period. One approach to this objective was made through a two-day meeting of the New York State Rural Policy Committee held at the College. This meeting was preceded by a concerted effort of the departmental research and extension staffs in collecting facts that would aid the Policy Committee in making recommendations to help all rural organizations to formulate and carry out long-time programs. The printed report, "Looking Ahead with the New York State Rural Policy Committee," has been widely distributed, and many of the recommendations have been applied. Extension plans and follow-up will be guided largely by these recommendations.

Several over-all College committees, such as Extension Studies, Rural Housing, Rural Arts and Recreation, and Training for Extension Work, have been constructive and most helpful in guiding future extension policies and programs. These over-all committees, composed of resident teachers, research workers, and extension personnel, served a dual purpose, namely: (1) to acquaint the entire staff with rural problems, and (2) to enable all to participate in planning the policies and programs, resulting in better team work and greater and better benefits to rural people.

To meet the need for better coordination of the work of the several agencies offering aid to individual farm families in planning their farm business, the Extension Service has promoted and implemented more farmer and homemaker participation in making and carrying out policies and programs on both state and county levels. By this means it is expected that much better integration may be achieved in the activities of legally constituted state and county farmer committees and boards, such as the Production and Marketing Administration, Farmers' Home Administration, and Soil Conservation. This should result in less confusion and sounder plans.

The problems peculiar to families in the poorer land-class areas are becoming more complex and more difficult to handle. Low farm incomes in these areas result in abandonment of farms, movement of families out of these areas, higher tax rates, poor social conditions for those who remain, and low morale. A program of study and demonstration has been started, during the year, in one such area in central New York. Findings from this study should provide a base on which extension programs, better suited to such conditions, can be developed.

Nutrition work in cities, except New York City, has become a part of the regular home-demonstration program. Some special state funds are available to make an orderly transition. Albany and Oneida Counties have taken advantage of the amended State Act which provides additional state aid for home economics work with adults in cities. Other counties, through different provisions of the Act have

state aid for additional assistants so that the entire staff of home-demonstration agents may do more work in cities. It is expected that no new city home bureaus will be formed. There is a growing interest in Erie, Monroe, and Onondaga Counties to combine, eventually, the county and city home bureaus.

Some interest is being exhibited in New York City for permanent home-economics and horticulture programs. The local leaders there believe that the horticultural program should be designed primarily for young people, with 4-H work as the pattern. A special act of the State Legislature will be required if State aid and local funds are to be provided.

The emergency farm-labor program will continue until December 31, 1947. The important change is that the contract with the New York State Employment Service for the recruitment and placement of local labor has not been renewed. The educational migrant-farm-labor program under the direction of an over-all College committee will continue as long as state or federal funds are provided.

The morale of the county and state extension workers is good. Retirement benefits, salary increases, somewhat improved working conditions, and the opportunity for all to participate in developing policies and planning programs have contributed to this good feeling.

Unless there is a marked decrease in farm and other income, continued support may be expected from county and state appropriating bodies and from the thousands of cooperators and friends of the Extension Service.

APPROPRIATIONS

The State appropriations for the fiscal year 1946-47, as compared with 1945-46, show a net increase of \$253,386 in personal-service, including salary increases, new and restored positions, temporary services, and accessory instruction. Funds for maintenance and operation are increased \$16,314. A special appropriation of \$37,500 was made from the Postwar Fund for equipment replacement and from the same fund \$93,000 was appropriated for additional equipment.

The Legislature of 1946 provided an additional sum of \$16,500 to complete the staff of the Department of Biochemistry established on April 1, 1945.

A special appropriation of \$38,000 was made from the Postwar Fund for repairs and rehabilitation of buildings.

The sum of \$184,350 was appropriated for increasing the state portions of the salaries of county extension agents and assistants.

The Legislature made other special appropriations as follows: for soil conservation work, \$4800; for research and extension in beef cattle and meats, \$5000; for research on the golden nematode of potatoes, \$10,000; for turkey and duck research, \$25,000.

A revised schedule of emergency compensation was recommended by the Governor and adopted by the Legislature. Under the provisions of this act there is for the fiscal year an additional payment of 30 per cent on base salaries under \$1500 providing the total of salary and emergency compensation shall not exceed \$1890, a payment of 26 per cent on salaries between \$1500 and \$2000 with a top limit of \$2440, 22 per cent on salaries between \$2000 and \$3000 with a top limit of \$3540, 18 per cent on salaries between \$3000 and \$4000 with a top limit of \$4560, and 14 per cent on all salaries \$4000 or over with the provision that the war emergency compensation may not exceed \$1000.

The Federal appropriations for teaching and research were the same in amount as those for the year 1945-46. Federal funds for extension were increased by \$93,340.45 under the provisions of the Bankhead-Flannagan Act.

COUNCIL FOR THE NEW YORK STATE COLLEGE OF AGRICULTURE AND THE AGRICULTURAL EXPERIMENT STATION

Upon the nomination of the New York State Conference Board of Farm Organizations, the Board of Trustees elected the following as members of the Council for a three-year term beginning July 1, 1947: Mrs. Carl E. Ladd to replace Mrs. Frances Todd, Jay D. Sholes to succeed Ernest Strobeck, Herman Kappel to succeed John Hall, Kenneth Bullard to succeed H. J. Evans, and J. Stanley Earl to succeed Don J. Wickham.

Upon the nomination of the President and the Dean of the College of Agriculture, Marion C. Albright was elected by the Board of Trustees to succeed John S. Wickham for a three-year term beginning July 1, 1947.

The Faculty of the College of Agriculture elected L. A. Maynard to succeed J. H. Bruckner and K. L. Turk to succeed himself.

THE COLLEGE STAFF

New appointments were made to the staff during the year or to become effective July 1, 1947, as follows: Roy E. Blaser, acting professor of agronomy; James W. Linn, acting professor of animal husbandry (July 1, 1946 to May 31, 1947); Max E. Brunk, acting associate professor of marketing (October 16, 1946 to February 14, 1947) and associate professor of marketing, effective July 1, 1947; Clifford R. Harrington, associate professor in extension service and assistant state leader of county agricultural agents; Alvin A. Johnson, associate professor of plant breeding; Olaf F. Larson, associate professor of rural sociology; Arthur L. Neal, associate professor of biochemistry; James C. White, associate professor of dairy industry; Charles A. Bratton, assistant professor of farm management; Betty Burch, assistant professor of extension teaching and information; Avery H. DeGolyer, assistant professor of agricultural engineering; George G. Gyrisco, assistant professor of entomology; Earl M. Kroft, assistant professor of soil science; Victor E. Schmidt, assistant professor of rural education; Milton L. Scott, assistant professor of poultry husbandry; Lloyd E. Slater, assistant professor of marketing; William E. Snyder, assistant professor of ornamental horticulture; Robert W. Spalding, assistant professor of animal husbandry; and George H. Wellington, assistant professor of animal husbandry.

The following members of the staff retired during the year: Frank P. Bussell, on August 31, 1946, and appointed professor of plant breeding, emeritus, on September 1, 1946; Harold E. Ross, on October 31, 1946 and appointed professor of dairy industry, emeritus, on November 1, 1946; Philip A. Wessels, on March 31, 1947 and appointed professor of vegetable crops, emeritus, on April 1, 1947; Howard W. Riley, on June 30, 1947 and appointed professor of agricultural engineering, emeritus, on July 1, 1947; Lester W. Sharp, on June 30, 1947 and appointed professor of botany, emeritus, on July 1, 1947; and Albert H. Wright, on June 30, 1947 and appointed professor of zoology, emeritus, on July 1, 1947. Juan E. Reyna, who was reported to have retired last year was asked to return and continue his regular teaching schedule throughout 1946-47. He retired on June 30, 1947, and was appointed associate professor of drawing, emeritus, on July 1, 1947.

Resignations during the year included Martin P. Catherwood, professor of public administration; William M. Curtiss, professor of marketing; Floyd A. Harper, professor of marketing; James W. Linn, acting professor of animal husbandry; Arthur E. Durfee, assistant professor of extension teaching and information; John S. Niederhauser, assistant professor of plant pathology; and Charles L. Norton, assistant professor of animal husbandry.

It is with deep regret that we record the deaths of Willard W. Ellis, librarian, on December 22, 1946, and Philip A. Radio, professor of economic entomology, on May 28, 1947.

During the year, thirteen promotions to the rank of professor were made, twenty-one to the rank of associate professor, and six to the rank of assistant professor. On January 1, 1947, Professor Whiton Powell, who had been associate librarian was made librarian of the College. Professor Byron B. Robb was changed from acting head to head of the Department of Agricultural Engineering on December 18, 1946.

THE STUDENT ENROLLMENT

An important feature of the enrollment situation for the year was the large number of applications for admission in proportion to the number that could be accepted by the College. For the fall term, 1946, a total of 1821 applications were received; veterans made up more than 60 per cent of the men who applied. The total number was divided as follows: 1570 for the four-year course, 200 for the two-year course, and 51 for adult special registrations. To limit the enrollment of stu-

dents to the available accommodations, the number that might be registered in each college of the University had been fixed. In the College of Agriculture the allotment for undergraduates was 1435. This included four-year, two-year, and adult special students; and involved those who had been enrolled in the previous term and expected to return; those who had been on leave of absence for military service, farm work, or other employment, and were ready to return; and new students enrolling for the first time. Uncertainties in the minds of members of each of these three groups and changes in their plans resulted in withdrawals to such an extent that it was necessary to approve for admission more than 100 students beyond the number that had been thought necessary to meet the quota. A total of 255 students who had been on leave returned for the fall term, and an additional 88 in the spring term.

In considering applications for admission, the total qualifications of the applicants were taken into account, as far as possible. Important items included the academic record, farm and other agricultural background, evidence of interest and ability for the type of work desired, military service, and recommendations of teachers, principals, and others.

The enrollment of students during 1946-47, with figures for 1945-46 for comparison, was as follows:

	1945-46	1946-47
Four-year students:		
Freshmen	268	463
Sophomores	193	318
Juniors	179	259
Seniors	132	244
Total	772	1,284
Special students	236	138
Two-year students:		
Dairy farming	29	44
General farming	49	115
General livestock farming	11	18
Fruit growing	10	11
Poultry farming	17	19
Vegetable growing	4	8
Commercial floriculture	12	18
Nursery landscape service	1	1
Total	133	234
Graduate students	544	672
Summer-session students	392	624
Taking regular courses in the College but registered as extramural	0	68
Total	2,077	3,020
Less number counted twice	53	154
	2,024	2,866

WILLIAM I. MYERS,
Dean of the New York State College of Agriculture.

APPENDIX XIII

REPORT OF THE NEW YORK STATE AGRICULTURAL
EXPERIMENT STATION AT GENEVA

To the President of the University:

SIR: We have the honor to submit to you the report of the New York State Agricultural Experiment Station for the academic year ended June 30, 1947.

Five years ago, Cornell University, as an agent of the State, agreed to develop the Experiment Station at Geneva primarily as a Horticultural Research Institution with increased emphasis on the science and technology of processing and utilization of fruit and vegetable products. The program of expansion along these lines is now well under way. The special appropriations which were made available by the State Legislature to undertake additional work in fruit nursery and fruit breeding problems, to expand vineyard research in the Finger Lakes area, and to initiate new studies in the food science and technology are beginning to yield definite results. Plans and specifications for a new Central Heating Plant and for a modern Food Science and Technology Laboratory are complete, and funds have been appropriated for the construction of these facilities. The plans for a new Plant Pathology and Entomology Building are in the final stages. Demands for additional research cannot be met adequately until these physical facilities are provided. It is therefore highly desirable that construction begin at the earliest possible date.

In the meantime, the care of an increased number of experimental field plots at Geneva and in various parts of the State fully occupies the time of the present staff. The several commodity councils made up of practical growers and processors nevertheless urge the importance of more and more research in our field of work. To partially meet the demands for the solution of immediately pressing problems, the existing research projects are carefully scrutinized, and shifts in emphasis are made from time to time, without, however, minimizing the importance of long time, basic research activities. The council of grower commodity committees and of the Agricultural Council of the Board of Trustees have again been most helpful in reviewing our over-all research program and in guiding our work along the lines of the greatest urgency to our constituents.

It is now well recognized by the members of staff and by the farmers throughout the State that the research facilities at the Stations at Geneva and Ithaca supplement rather than duplicate each other, and a new spirit of unity is clearly evident. Both the stations are involved in cooperative regional research with other state experimental stations in the northeast and with the Federal Government to help in the solution of agricultural problems that go beyond state lines. This team work among the various agricultural research staffs is of special importance to New York since the agriculture of the state embraces such a wide variety of commodities that present many complex and specific research problems. With the greater demands and mounting costs of exacting research which the stations are called upon to do, it is vital that the best possible use be made of our combined facilities, especially in view of the continuing acute shortage of trained personnel in most of the technical fields.

RESEARCH

A brief resume of some of the results of research are given in the following paragraphs. A more detailed discussion is contained in the annual report of the Station to the Governor and the Legislature of the State.

Failure of parasites to satisfactorily control the oriental fruit moth in peaches and the excellent control secured with DDT has led to extensive tests with DDT sprays and dusts for peaches. In some areas where no spraying or dusting was done, clean fruit averaged from 85 to 98 per cent while in other areas it ranged from 73 to 83 per cent. Where DDT sprays or dusts were properly applied the clean fruit varied from 91 to 100 per cent. To avoid DDT residue, it has been shown that the sprays must precede harvest by at least 21 days where a single application is made and by about 30 days when several treatments are involved.

Widespread losses from late blight in tomatoes have led to the use of copper-containing sprays on a much larger scale than heretofore. This presents a problem of spray residue on the ripe fruit that might affect the processed product. Even where the fruit was washed thoroughly to remove spray residues, sprayed tomatoes showed an increase in copper content over unsprayed fruit. It was also found that the use of copper equipment will lead to an increase in the copper content of tomato juice during the processing operation. The detrimental effect of copper on the ascorbic acid, or vitamin C, content of tomato juice is restricted to the period of processing of the tomatoes. Copper present in the prepared juice has no effect on the vitamin C content during storage, the storage temperature apparently being the principal factor affecting vitamin loss during storage. Copper derived from sprays does not appear to affect the color of tomato juice, but any increase in copper content may have an adverse effect on quality when the juice is concentrated during the manufacture of puree, sauce, catsup, or paste.

Adding ascorbic acid to apple juice at the rate of 12 grams of ascorbic acid powder to a pint of juice and spraying the solution on ground apples just before pressing has a pronounced effect in retaining a desirable light color of the juice. If other precautions are followed, such as rapid handling, deaeration, low-temperature pasteurization, and low-temperature storage, a stable juice may be obtained that retains much of the flavor and color of the original fruit.

The apple breeding program has been given added impetus by the discovery of large fruited "sports" that contain 68 (tetraploid) chromosomes, the bodies that determine the heredity of the apple, as compared with the usual 34 (diploid) or 51 (triploid) chromosomes of the well-known varieties. Three of these tetraploids, as they are called, are being crossed with common diploid varieties to produce triploid sorts. Many of our best commercial varieties and many promising new apples are triploids; hence the discovery of tetraploid sorts to be used in the breeding program holds promise for the possible production of a greater number of large, high-quality apples from which to select promising new sorts.

Three new varieties of tomatoes were named during the year—Gem, Red Jacket, and Longred. Because of the limited amount of seed available, distribution has thus far been restricted to seedsmen and canners who will multiply the seed stock. Sufficient seed should be available for general distribution in 1948. Gem is distinguished by a small, compact plant which makes possible closer planting and, with an increase in crown sets, more early fruit. Red Jacket is indeterminate in growth, vigorous, and has heavy "potato-leaf" foliage that covers the large red to scarlet colored fruit. Longred is a second early variety with large, glove-shaped fruit. All these sorts are highly productive and set blossoms freely under conditions prevailing in those areas of the State where cannery tomatoes are widely grown.

A tomato spraying program has been developed that will give efficient control of early and late blight, anthracnose, and leaf mold, the major disease affecting cannery tomatoes in this State. An alternate schedule of Zerlate, a new organic fungicide, at 2 pounds per 100 gallons and Bordeaux 8-4-100 has proved outstanding in the following order of applications: Zerlate-Zerlate-Bordeaux-Zerlate-Bordeaux, beginning about the middle of July.

Real progress has been made in the control of leaf curl and brown rot of peaches with some of the newer fungicides. Elgetol, Dow DN Dry-Mix, and Dow DN 289 gave complete control of leaf curl when applied in the spring at concentrations as low as 1 quart, 1 pound, and 0.8 quart to 100 gallons of water, respectively. Zerlate appears to have more merit than sulfur for brown-rot control on peaches.

Continued interest in better seed stocks is reflected in the 19,569 samples of seeds sent to the seed testing laboratory this past year by citizens of the State. This great volume of seeds from widely scattered sources also affords an abundance of material for research on many seed problems. In addition to these service samples, a total of 3,267 samples were analyzed in connection with the official seed inspection.

APPROPRIATIONS

State appropriations for personal service and maintenance and operation for the fiscal year ended March 31, 1947 amounted to \$500,58, including \$23,000 from the Post War Fund for equipment and \$4,200 for rehabilitation items. Reappropriations

for buildings and special repairs amounted to \$1,334,175. For the year beginning April 1, 1947, new state funds for personal service and maintenance and operation amounted to \$535,150. The money required for bonus payments is not included in these amounts. The allotment of Federal Funds as follows: Adams \$1,500; Hatch \$1,500; Purnell \$6,000; Bankhead-Jones \$10,235.14. Additional grants-in-aid, investigatorships, and fellowships supported by industrial organizations numbered 18 and amounted to \$48,250.

ORGANIZATION AND STAFF

Appointments during the year included those of Joseph D. Lipps, Research Associate, Division of Food Science and Technology, September 1, 1946; Curtis H. Dearborn, Assistant Professor of Vegetable Crops, October 1, 1946; John C. Cain, Associate Professor of Pomology, November 1, 1946; Charles C. Stepanek, Research Associate, Vegetable Crops, May 16, 1947; David B. Hand, Professor of Biochemistry, Division of Food Science and Technology, June 15, 1947; Leroy E. Everson, Assistant Professor of Seed Investigations, June 16, 1947. Resignations included John Shafer, Assistant Professor of Vegetable Crops, September 30, 1946; Frederick G. Smith, Assistant Professor of Chemistry, June 15, 1947; Elmer H. Stotz, Professor of Chemistry, June 30, 1947.

The following were promoted from Assistant Professor to Associate Professor on July 1, 1946: George H. Howe, Division of Pomology; Frederick W. Munding, Division of Entomology; William T. Tapley, Division of Vegetable Crops; Lester C. Anderson, Division of Pomology; Frank A. Lee, Division of Food Science and Technology; Laurence A. Carruth, Division of Entomology; James D. Harlan, Division of Pomology; Willard F. Crosier, Division of Seed Investigations; Foster L. Gambrell, Division of Entomology.

The entire non-professional staff was placed on a 40-hour week beginning in April 1946, and through the summer months the station activities were carried on during a five-day week. These changes, along with more liberal wages, have naturally increased costs of operation, but they have definitely improved the morale of the workers. The work of the station on the whole has progressed smoothly owing to the fine esprit de corps of the entire staff.

W. I. MYERS,
Dean of the New York State College of Agriculture.
ARTHUR J. HEINICKE,
Director of the New York State Experiment Station.

APPENDIX XIV

REPORT OF THE DEAN OF THE NEW YORK STATE COLLEGE OF HOME ECONOMICS

To the President of the University:

SIR: I have the honor to submit the report of the New York State College of Home Economics for the year 1946-1947.

The return this year to two winter semesters and one six-weeks summer session in contrast to the three full semesters of the war regime has made possible, as it has for all the University, a reestablishment of sabbatic leaves and of fairly normal schedules for the faculty. This has been an important factor in renewed vigor of approach to the long-time plans for the College.

Miss Mary Henry, who has ably served a number of years as Assistant Dean of the College, retired in July, 1946. Expanding programs in the fields of research and of extension made it seem advisable to organize the administration of the College in such a way that the programs of resident instruction, of research, and of extension could each have specialized attention. We have, therefore, dissolved the office of Assistant Dean. Miss Catherine Personius, who will continue as head of the Department of Food and Nutrition, on October 1, 1947, will become Coordinator of

Research in the College of Home Economics and Assistant Director of the Cornell University Agricultural Experiment Station. In this capacity she will serve as chairman of the Research Committee, which is a standing committee of the Home Economics Faculty, and will be the liaison person between the College of Home Economics and Director Guterman, who is Director of Research and Director of the Cornell University Agricultural Experiment Station. Miss Grace Steinger will assume certain administrative responsibilities in the Department of Food and Nutrition in order that Miss Personius may devote the necessary time to her new duties. Miss Frances Scudder, who will continue to act as State Leader of Home Demonstration Agents, on October 1, 1947, will become Coordinator of Extension in Home Economics. In this capacity she will serve as chairman of the Extension Educational Policies Committee of the Home Economics Faculty and will be the liaison person between the College of Home Economics and Director Simons of the Extension Service of the New York State Colleges of Agriculture and Home Economics. The chairmanship of the Resident Educational Policies Committee of the Home Economics Faculty and coordination of resident instruction have been taken over by the Dean of the College.

The core, or required basic curriculum for undergraduate students, was in full operation, the first class to be affected by the plan being the sophomore class this year. The new undergraduate extension curriculum was in its third year, with the course in preparation for senior field work being offered to juniors for the first time. In cooperation with the College of Agriculture, a graduate curriculum for the training of in-service extension workers operated in the summer session and is now organized to accommodate regularly enrolled winter students.

The Department of Home Economics Education, long a part of the Department of Rural Education in the College of Agriculture, became officially a department of this College, moving into our building in September, 1946, and coming on to our budget in April, 1947. The work of this department continues to be closely coordinated with the work of the Department of Rural Education, and is, as before, a part of the School of Education of the University; but there is advantage to be gained in the closer association with the work of the College of Home Economics.

Continued demand upon our College for help with housing problems in the State, and the need to develop work to meet demands by colleges and universities throughout the country for teachers of the various aspects of housing which concern home economics, have led to a supplementation of the work of the Department of Household Art and a change of name of this department from the Department of Household Art to the Department of Housing and Design. This department will continue its emphasis upon basic art work and house furnishings but will now also develop further work in the aspects of housing which are of particular interest to home economics. Miss Virginia True, who has served for two years as acting head of this department, will become permanent head on October 1, 1947.

THE BUILDING

The Martha Van Rensselaer Hall, which seemed at the time it was built to be more than adequate for many years in the future, has been badly overcrowded this past year. The increase of undergraduate Home Economics students financed by the State from 450 to 600 several years ago, the return of the graduate student group to prewar numbers, the expansion of the student group in the Department of Hotel Administration, and the expansion in numbers of students from other colleges of Cornell University who take Home Economics courses place heavy demands upon classroom and laboratory space. With crowded conditions on the whole campus, this building has been used to capacity for student and adult gatherings of both social and work nature.

VISITORS

As the problems of the war have given way to the problems of reconstruction, Europe and Asia as well as South America and South Africa have felt the need to organize programs of home economics, not only as a means of conserving food, but also as a means of improving general living through making better homes. The result has been an unusual number of foreign visitors who have stayed from one day

to one month in order to study both the resident and extension programs of the College. Such visitors demand a great deal of time, but are rewarding in the fact that they widen our viewpoint and cause us to review our own program.

We have also had an unusual number of visitors from other colleges and universities which are planning new buildings for home economics and who wish to inspect our building and to learn from our experience with it.

ENROLLMENT

The distribution of students in the undergraduate classes was more nearly even as the acceleration of the war years settled back toward normal. Numbers were distributed as follows:

	<i>Fall term</i>	<i>Spring term</i>
Seniors.....	122	110
Juniors.....	161	141
Sophomores.....	161	165
Freshmen.....	166	159
Special students.....	14	11
Graduate students.....	48	51
	<hr/>	<hr/>
	672	637

Summer students totaled 192.

During the year, three students were enrolled at the Merrill-Palmer School for special study and eight at the Cornell University-New York Hospital School of Nursing.

The number of students from other colleges in the University who took Home Economics courses during 1946-1947 was more than double the number in 1945-1946:

<i>Department</i>	<i>1945-1946</i>	<i>1946-1947</i>
Child Development.....	92	155
Economics of the Household.....	10	9
Food and Nutrition.....	45	188
Home Economics Education.....	1	1
Housing and Design.....	27	32
Institution Management.....	8	41
Textiles and Clothing.....	10	19
	<hr/>	<hr/>
	193	445

Graduate students registered in the College during the year were distributed according to their fields of study as follows:

<i>Department</i>	<i>Regular Session</i>		<i>Summer Session</i>	
	<i>Majors</i>	<i>Minors</i>	<i>Majors</i>	<i>Minors</i>
Child Development and Family Relationships.....	5	3	2	1
Economics of the Household and Household Management.....	2	4	..	1
Food and Nutrition.....	14	6	4	3
Home Economics Education.....	2	..	..	..
Housing and Design.....	..	1	..	1
Institution Management.....	3	..	3	..
Textiles and Clothing.....	2	..	3	..
General Home Economics, Plan B.....	26	..	26	..
Non-candidate.....	1	..	1	..
	<hr/>	<hr/>	<hr/>	<hr/>
	55	14	39	6

The number of graduate students registered for either one or both terms of the regular session was 55; for the six-weeks summer session, 39; a total of 94 for the year. Eight of these are duplicates.

Degrees Awarded

With the return to two, rather than three outgoing senior groups, the total number of degrees awarded during the calendar year changed as follows:

	1945-1946	1946-1947
Baccalaureate degrees awarded.....	161	110
Advanced degrees awarded.....	24	30
	<hr/>	<hr/>
	185	140

SCHOLARSHIPS AND STUDENT AID

The Anna Gage Putnam scholarship was awarded for the first time for the year 1946-1947. The fund for the Martha H. Eddy scholarship was completed and will be awarded for 1947-1948. The Martha H. Eddy fund is the eighth fund of \$3,000 to \$6,000 each which the Federation of Home Bureaus has placed with the University for investment, the income to be used for scholarships. These funds, composed of dime contributions from members of the Home Bureaus, are given to undergraduate students in recognition of leadership, financial need, and interest in preparation for a vocation in the Extension Service. They represent only one of the many ways in which our Home Bureaus cooperate with us in our work.

COUNSELING SERVICE, ADMISSIONS, AND PLACEMENT

The Counseling Service is now composed of three class counselors, the placement secretary, assistant placement secretary, and two graduate assistants. This year, the senior counselor was appointed Chairman of the Counseling Service and Acting Chairman of the Admissions Committee, responsibilities formerly carried by the Assistant Dean. At the same time, the detailed work on admissions was transferred to the Counseling Office, which works in cooperation with the general Admissions Office of the University.

The number of applicants for admission increased both for freshman standing and for advanced standing in 1947. Few advanced students were accepted because the general policy is to admit transfers only as places are vacated by students who drop out. The greater stability of the student body since the end of the war and the careful selection of applicants resulted in few such places.

The Committee on Admissions selected for admission those who gave promise of profiting most by an education in the College, and who seemed likely to make returns to the State through their vocational contribution and their leadership in the community. Over 90 per cent of the applicants were interviewed personally. Indications are that this method of selection is effective: few students left the College to study elsewhere; although half of the academic work of Home Economics students was carried in other colleges of Cornell University, drop-outs because of academic failure were substantially fewer than the University average; Home Economics students filled a substantial proportion of leadership positions for women on the campus.

Freshman Orientation

Because the opening of College was postponed, the University Orientation program for entering students had to be curtailed. Several meetings were held for students, but none for parents; minimum needs were met. Plans are made for a full University and College orientation program for the coming fall.

Preregistration

Since crowded conditions make effective counseling and good program planning difficult and place a heavy burden upon classroom space and instructional time, the system of preregistration on a University-wide basis has been of help in providing better opportunity for students to obtain the courses they wish.

Placement Service

Use of the Placement Office by students, alumnae, and employers grew steadily during the year.

The program of summer placement, which was rather quiet during the war years, returned to more than prewar proportions. To meet the need for additional vocational counseling and placement work, the part-time assistant placement secretary was made a full-time member of the staff on April 1. Growth was apparent in the apprenticeship type of employment, which gives students an understanding of the work of specific organizations. Particularly notable were some of the positions students accepted with social service organizations, utility companies, and in commercial and hospital food services. Requests for hospital workers and camp workers were double those in the summer of 1946.

College departments reported opportunities for students to do part-time work, and students who registered were referred to them for work. Other part-time jobs, such as earning room and board, were handled through the office of the University counselor of students. A total of 56.4 per cent of the undergraduates earned some part of their expenses.

Calls from employers for candidates who had graduated in Home Economics increased from 528 in 1944-1945 and 610 in 1945-1946 to 697 in 1946-1947. A total of 207 requests was received for persons with at least a master's degree, to teach at the college and junior college level. Many of the 40 calls for nursery school teachers also implied graduate work since a number of these schools require some teaching of college students in addition to directing or teaching in the Nursery School.

Candidates with advanced degrees are needed in all areas; particularly hard to find are those qualified for teaching home management, equipment, housing and design, institution management, child development and family relationships, and candidates who have a combination of home economics and writing skills. There are also more openings in hospital and institution food services than can be filled.

RESIDENT TEACHING

Core Courses

The Committee on Evaluation of the Core Courses, working in cooperation with the Counselors, continues to study the effect of the core on enrollment in advanced courses in this College, in the use of electives, and on the programs of transfers.

A committee was appointed in the spring of 1946 to study the possibility of including experience in the Homemaking Apartments in the required core program. As a result of their report, the Educational Policies Committee made the following recommendations which were later adopted by the faculty:

1. A one-hour elective course for sophomores entitled *The Homemaker's Job* should be offered with the idea of perhaps requiring it in the future. This course would serve as a prerequisite course for students going into Apartments residence, and would be of such a nature that even if a girl does not care to take the residence course, she will have a worthwhile and satisfying experience.

2. In addition to the six-hour residence course now offered, a three-hour residence course should be offered for one block of time in the spring term of 1947-1948. If this course proves successful and profitable for the students, it is to be strongly recommended as a course to be elected by as many students as possible. Many difficult problems are connected with requiring a residence course of all students; therefore a decision regarding this was deferred until more data are obtained and the three-hour experimental course has been given a trial.

Department of Child Development and Family Relationships

Eight members of the staff of this department are now members of the new University division of psychology. This closer association with other psychological work in the University is resulting in a larger demand for enrollment in certain classes in this department, particularly from the College of Arts and Sciences and the School of Education. Since the Nursery School laboratory is already inadequate to serve the students who want to observe young children and participate in the program, some community resources are now being used and others are being cultivated for future use as laboratories.

Because of the demand from this and other colleges on the campus, the Marriage

course was expanded to include one additional section in the spring term and three additional sections for the coming fall term.

Members of this department are in particular demand in the community as participants in conferences, speakers before groups of parents, and members of boards of directors of educational and social service organizations. This is felt to be an important part of their work, not only as a contribution to the community, but also as a means of keeping their viewpoint about people and human relationships realistic.

Urgent requests for personnel trained in this field indicate the need for further development of graduate work of this department. Plans are being made for an expansion of graduate offerings.

Department of Economics of the Household and Household Management

For many families, the year was a period of prolonged waiting for household equipment and materials for house repairs to make up for the heavy depreciation of the war years. As such materials became slowly available, questions from homemakers multiplied regarding quality of the new products. The department staff made every effort to take advantage of this heightened interest through its research, resident, and extension programs. The content of the two core courses has been changed as experience directed, and more subject matter from the basic sciences has been introduced into the course dealing with household processes.

This department, like most of our departments, is feeling the pressure upon laboratory and classroom space, as well as upon staff time. As are several of our departments, this department is frequently called upon to provide staff members for similar work in the other colleges and universities of the country and is doing everything possible in the development of graduate students and of young staff to meet this need.

Department of Home Economics Education

This department has both a high-school-teacher training program and a program for the training of extension agents. The enrollment of summer-school graduate students in both of these areas is particularly heavy and requires the full summer teaching of all of the members of the department, along with supplementation of personnel for the summer from other colleges and universities. Close cooperation with the State Education Department program for in-service teacher education places further demand upon the time and energies of this department, particularly in the summer session. In the summer of 1946 a conference for teachers of home economics in New York State brought eighty teachers to the College for a refresher course, and a two-week conference on supervision brought representatives from several states.

The undergraduate program for public-school teachers of home economics is centered in a required ten-hour unit, *The Art of Teaching*. This is divided into a two-hour course, in which the student observes and participates in community and school activities, and an eight-hour course in which the student for seven and one-half weeks teaches in one of five off-campus schools and lives in the community where the school is located.

In order that students in extension education could have the same type of experience, a ten-hour unit was set up for them. The two-hour course was offered for the first time in the spring term of 1946-1947. The eight-hour course will be offered in the fall of 1947. These students will live for half a semester in a cooperating county and will work under the guidance of the College staff and local extension agents. With student extension agents and student public-school teachers developing under the guidance of the same department, significant and valuable opportunities are opened for close cooperation between the school and extension programs at both youth and adult levels.

One new graduate course, *Advanced Homemaking Program*, was added this year.

Department of Food and Nutrition

This department has carried 14 graduate students who have majored in Food and Nutrition and 6 graduate students who have minored in this field. In addition to this, 9 graduate candidates for the M.S. degree on Plan B had chairman chosen

from this department, and members of the staff of this department have served as advisers for students registered for advanced degrees in the School of Nutrition. There is need for expansion of graduate course offerings, and plans are being made to meet this need.

Two new courses were offered in this department this year. One, Seminar in Food and Nutrition, was designed to help upper-class students to become better acquainted with the scientific literature in that field. The second, Seminar—Frozen Foods, sponsored jointly with the School of Nutrition, was planned to give an overall view of new developments in the frozen-food field. Enrollment for this course was heavy, including students from several areas of the University; more than 70 were from the Department of Hotel Administration. One staff member was in charge of the course; lectures were given by members of the teaching and research staffs of the Colleges of Agriculture and Engineering, the School of Nutrition, the New York State Experiment Station at Geneva, and the College of Home Economics.

For the first time, seniors in the College have been accepted for the year 1948-1949 on joint registration as candidates for degrees in the School of Nutrition.

Department of Housing and Design

Problems and needs in housing continued to be acute. Constant demands for undergraduate work, for graduate work, and for assistance through extension work in house planning and furnishings have pressed this department toward progress in meeting these needs.

Additional sections of the basic core courses in this department are being offered to meet the demand of the undergraduate teaching. An additional section of the course Hotel Furnishing and Decoration has been offered.

Ten gallery exhibits, planned by this department in cooperation with the Departments of Textiles and Clothing and of Child Development and Family Relationships, have been arranged, and attendance, not only by our College but also by members from the other colleges of the University and by people from Ithaca and the State at large, has been gratifying.

Department of Institution Management

The demand upon this department for meeting food service needs of both students and faculty of the larger Cornell University community was not relieved by the cessation of the war, but has continued to increase. In 1946-1947 meals were served to 322,487 persons, an average of 2,303 for each day the services were open. This fact has offered a rich laboratory experience for students in the department, but has placed an almost impossible load upon the shoulders of the personnel, particularly of the teaching staff.

With the heavier registration of underclassmen in the required core courses, this department has felt some loss of students in its upper division classes. Whether or not this is a temporary shift which will adjust itself as the class of sophomores of 1946-1947 becomes upperclassmen remains to be seen. Since there is heavy demand for trained food administrators and hence a wide professional opportunity for men and women in this field, there may be need to consider the possibility of expanding the number of special and of graduate students who do work in this department.

This department has established a summer experience requirement for the undergraduate students who major in this area. Students have a variety of excellent job opportunities from which to choose in meeting the requirement in the summer of 1947.

Close cooperation with the Department of Hotel Administration has continued to be a feature of the work of this department, which offered course work to 89 Hotel students this year.

Department of Textiles and Clothing

The acute shortage of garment fabrics has been greatly relieved, and though prices were still high, students were able to obtain more satisfactory materials to use in their courses in this department. The curriculum changed little except for constant adaptation to student needs. A particular study of the basic core course in

this department was made and the decision reached that it would be unwise to change the content until the first "core class" (the sophomore class of 1946-1947) had completed its senior year, since adequate evaluation of the effect of the core course on other courses could not be made until that time.

The clothing clinic for veterans' wives, organized in 1946 and managed by the class in Family Clothing Problems, was attended by several hundred women. It was held in the evening under the guidance of the department with the help of a graduate student and in cooperation with the Clothing staff of the Tompkins County Home Bureau.

Five graduate students majored in this department and completed the work for the degree of M.S.

Department of Hotel Administration

Although the Department of Hotel Administration is not carried on the budget of our College, it is closely integrated with our program. With continued pressure for admission from returning veterans and newly graduated high school students, the enrollment of this department reached the University allotment limit of 378 in the fall term and 364 in the spring term of 1946-1947. About 700 fully qualified candidates for admission were declined in September, 1946.

Of the present student body, 297 are veterans. They continue to represent every branch of the services, and some hold important decorations. Three students are still on active duty in the army with ranks as captain, major, and lieutenant colonel. They are sent by the war department for special programs in Hotel and Institution Management.

Captain Silk, released from service, has rejoined the Faculty. James Barrett, '43, has been appointed an accounting instructor. Donald E. Lundberg, Ph.D., has been appointed an assistant professor to succeed Professor Winsor, recently made director of the School of Education. These staff additions have hardly kept up with the increased enrollment, and there is great pressure upon both the teaching and the administrative staffs.

Graduates of both the February and the June classes have been in active demand. Salaries offered are at new highs.

Homemaking Apartments

During the seven weeks of residence in the homemaking apartments, students were encouraged to adjust to rising costs of living and to use ingenuity in solving problems of families of moderate income in present-day living. They learned to cut down waste of all kinds and emphasis was placed on good management. An effort was made to bring together into an integrated, functional whole the knowledge and experience gained through separate courses in their college program. The girls were encouraged to contribute their time and talent for one afternoon every two weeks in hospitals, campus church offices, with Girl Scouts, and the like in order to give them a sense of community responsibility.

Cooperation with department staffs has been even closer than formerly. Staff representatives from the departments of Housing and Design, Home Economics Education, Economics of the Household and Household Management, Food and Nutrition, Textiles and Clothing, and Child Development and Family Relationships served on an Advisory Committee to work with the instructor in the Homemaking Apartments. This committee met weekly with the instructor and has been instrumental in obtaining a better understanding of the work and to plan ways of integrating the work of the various departments with that of the apartments.

EXTENSION SERVICE PROGRAM

Home Demonstration Work

Three important changes in home demonstration work during the year influenced the work: (1) the number of families participating in the program expanded from 42,814 last year to 66,681 this year; (2) the program geared for wartime conditions had to be suited to family living under peace; and (3) Cornell was chosen as the extension training center in the Northeast.

A total of 50 counties and three cities support home demonstration work, and urban work has recently become a part of the county program in Albany, Oneida, Broome, Chemung, and Niagara counties. Each of these now has an assistant agent assigned to work with women in the cities. Twenty counties still have but one home demonstration agent; 24 have an agent and an assistant agent; and six counties and three cities have an agent and two assistant or associate agents.

One common aim of the homemakers who cooperate with the Extension Service is to find a way to lasting peace. Many programs have focused attention on neighborliness, understanding of others, training in local government, and the like. Every county has had its plan for writing to families of other countries, sending packages, or adopting children abroad.

In response to the request from the Northeastern States for an extension training center at Cornell, a three-weeks summer session for extension workers was offered, and courses in nutrition and housing have been added for the summer session of 1947.

4-H Club Work

4-H Club work was carried on in 53 counties employing 84 full-time agents. Twenty-seven of these counties employed two agents, and two counties employed three. The itinerant-agent staff consisted of two district home economics agents and one agriculture agent-at-large. Club membership totaled 48,615, consisting of 24,690 boys and 23,925 girls. The 2,400 clubs were guided by 3,857 volunteer local leaders.

The State 4-H Club staff consists of a State leader, three assistant State leaders trained in agriculture, and two assistant State leaders trained in home economics. The State leaders work closely with the county agents, executive committees, volunteer club leaders, and specialists in the subject-matter departments at the College.

Again this year six specialists gave full time to the 4-H Club program in home economics; two in food and nutrition, one in home improvement, one in child development and family relationships, and two in clothing and textiles. The district agents supplemented the teaching of the specialists.

For the seventh year, 15 college undergraduates were employed as summer assistants in 4-H Club work. The experience is worthwhile for the girls, helpful to the county 4-H Club staff, and affords an excellent opportunity for the State leaders to learn more about potential agents. The following institutions were represented in the group: Pennsylvania State College, Eastern Illinois State Teachers College, Pratt Institute, Syracuse University, Cornell University, Connecticut College, Buffalo State Teachers College, and Russell Sage College.

Agents were given opportunity for professional improvement through conferences and training schools as follows: the annual meeting of the 4-H Extension Federation; district training schools in work simplification; a conference at the College for agents, specialists, and State staff members on program planning and project revision; the Ninth Annual Camping Institute; a work group section for 4-H Club leaders and agents at the Leadership Training School in Child Development and Family Relationships.

Extension Work in the Various Subject-Matter Departments

In the extension program in Child Development and Family Relationships, the purpose was to develop, for all participants, an understanding of people, their needs and behavior; to gain more enjoyment and satisfaction from daily living; to know more about growth, development, and human relationships; to help in the guidance of children and youth; and to provide opportunity to meet the needs of children, youth, and adults. Help in planning was received from specialists in other departments, from State leaders, and from the resident staff in the department.

In the Department of Economics of the Household and Household Management a new position was opened for a specialist to work with older rural youth on financial problems. The home demonstration agents took more responsibility than formerly for training local leaders and for teaching directly in the communities. Effective teaching, program planning, and publicity were carried on by 1,243 local leaders. Major attention was given to training leaders in methods of simplifying work

through good selection and use of equipment and the improvement of work areas and storage spaces.

Food and Nutrition programs were divided into three major projects: the relationship between health and nutrition; food selection, preparation, and service; and food production and preservation. As a result of the desire of homemakers for basic nutrition information and the fundamentals of food preparation, the trend is toward projects that require from two to three years for completion.

One new development of the year was the extension housing program. Under the leadership of a newly appointed rural architect, a program for the remodeling of farm houses and the planning of new ones was started. A series of housing training schools was given in which several departments of the Colleges of Agriculture and Home Economics cooperated to train extension agents of the three departments; namely, Home Bureaus, Farm Bureaus, and 4-H Clubs.

The extension work in the Department of Institution Management was continued in the areas of community kitchen remodeling and of institutional, industrial, and camp food service consultation. One district agent taught the staffs of 17 child-care centers to select and prepare food for the children under their care. Another helped to plan the remodeling of 30 church or grange kitchens in 14 counties, and the specialist gave help in equipping or remodeling 18 other community kitchens.

This department also gave aid through consultation, exhibits, or talks to the following organizations and agencies; Snider Corporation; 4-H Club camps; Salvation Army, Y.M.C.A.; Campfire Girls; Girl Scouts; Huntingdon Club camp; Camping Institute; Genesco State Teachers College; Dunkirk Church Conference; George Junior Republic; Industrial Nurses' Association; and Industrial Feeding Work Conference called by the Federal Production and Marketing Administration and the State Departments of Labor and Health.

In the Department of Textiles and Clothing, specialists and agents trained larger groups of leaders than previously in order to care for the increased enrollment of homemakers. As standards of workmanship in relation to price of ready-to-wear clothing declined, homemakers developed new standards for their own home dress-making techniques. Counties requested more advanced construction work; more elementary short units of work for business girls and young mothers; and basic dress-making programs to meet the needs of the homemaker with intermediate skill and experience.

Choices of fabrics and ready-to-wear garments were limited, and some clothing continued short in supply. Specialists and leaders continued to teach conservation of clothing, including mending, pressing, and cleaning. With new appreciations of value, style, fit, design, and workmanship, homemakers reached new achievements in the quantity and quality of their work. In general, families were better clothed than before the war.

As a result of a radio program of 15 lessons on "Let's Make a Dress," 11 counties held achievement rallies with a total attendance of 1,350 women. Also, a television program was given at which three women modeled dresses they had made after taking the radio lessons.

Department of Extension Teaching and Information

The home economics section of this department, in cooperation with home demonstration agents, 4-H Club agents, and subject-matter specialists, as well as resident and research faculty members, continued to help New York State families toward more satisfying living in the family and in the community through the use of all the media at its command: printed bulletins, personal contacts, news releases, articles in professional and national magazines, radio programs, visual aids, talks at meetings, letters, and special campaigns. Another objective was to develop public relations so that the people of the state would be intelligently informed concerning the resident teaching, research, and extension programs of the College.

About a million and a half bulletins for homemakers were distributed, 16 of which were new or revised this year. News stories were supplied regularly to more than 400 weekly newspapers, to dailies, and to magazines. Two weekly radio programs were broadcast, and, in addition, many special programs were prepared, some of which were on coast-to-coast networks.

Extension Studies

In 1946 a Policy Committee on Extension Studies was set up "to guide all Extension studies in the State." Headed by an Extension rural sociologist, this committee includes agents, specialists, the three State leaders, the Director of the Cornell University Agricultural Experiment Station, several department heads, and several resident staff members skilled in research techniques, with the Director of Extension and the Deans of Home Economics and of Agriculture as *ex officio* members. The Policy Committee met three times during the year. Three Home Bureau studies were designed and started during 1946-1947: 1. participation of farm women in the Home Bureau (pilot study in Chemung County); 2. the composition of the 1947 Home Bureau membership; and 3. the composition of the 1948 Home Bureau membership.

First attention will be given to the completion of these studies, after which the following will be undertaken: evaluation of the various steps in program planning and the results achieved; the recruitment, training, and recognition of local leaders; and check sheets for the evaluation of subject-matter, schools, training meetings, and discussion groups.

Extension Secretary's Office

Throughout the year, the Extension Office provided stenographic service for extension specialists and supplied to county extension offices mimeographed, multilithed, and printed home-economics material. The Emergency Food Commission leaflets continued to be popular, and the College continued to reprint them for use in urban and county nutrition work. Large quantities of mimeographed and multilithed material for use in teaching were sent to home demonstration agents and 4-H Club agents. Shortage of paper somewhat curtailed the distribution of mimeographed materials, but in spite of this 138,000 sheets were distributed.

RESEARCH PROGRAM

In all departments, research was expanded for the immediate purpose of helping to solve the problems of postwar homemaking and for the ultimate purpose of bringing more satisfying and happier living to the families of New York State through better nutrition, better housing, and better human relationships.

Because family life has such great influence on good citizenship, the Department of Child Development and Family Relationships has formulated a cooperative two-year study of practices and values of rural families in rearing preschool children. Research in progress also includes studies on the effects of snow suits upon children's motor activities; authority patterns in middle-class families; the family life of preschool children in a Chinese rural community; the concept of democracy as revealed in the value patterns and inter-personal relations of Japanese-Canadian families; the use and variety of play materials employed by preschool children in out-of-doors free play; leader and member activity sensitivity during group meetings. Studies completed in this department include a study of the effect of antecedent frustration on projective play; relationship of the guidance of a four-year-old girl with her adjustment to nursery school; a study of the human needs toward which advertising is directed; and the readjustments of thirty young families to wartime living.

Since women have become increasingly aware of their responsibilities toward the world outside the home, they have realized that household tasks must no longer absorb their entire time and energy. Therefore they ask for work simplification, functional household tools and equipment, and time and labor savers. For this reason research in the Department of Economics of the Household and Household Management has been directed toward solving these problems. An appropriation of \$10,000 was made by the State to continue the investigation in this department of a functional basis for kitchen designing, begun under a three-year grant from the American Central Manufacturing Corporation which terminated during the year. Research was also carried on which investigated the relationship between household tasks and the worker and equipment; on commercial products recommended for household cleaning; on variations in dimensions and weights of consumer packages; on relative economy of various foods and weights of consumer packages; on relative

economy of various foods in an adequate diet in New York State; on factors affecting rural families' decisions in the care of laundry; and on variations in the dimensions of packages of ready-to-eat cereals.

Research by staff members and students in the Department of Home Economics Education was concerned with curriculum development; resource materials; methods of teaching; adult education programs; a cooperative study with the State Research Committee; and another which was part of a national study of 5,000 teachers carried on by the Home Economics Education Committee of the American Vocational Association on "Factors affecting the supply of homemaking teachers."

In view of the recent federal legislation which authorizes the appropriation of new funds both for research in the states and cooperative research in the region, considerable time was spent by the Department of Food and Nutrition in planning a cooperative study of nutrition with the Department of Biochemistry and the School of Nutrition. During the year, a medical advisory committee was constituted for consultation on nutrition research studies in this department. The first meeting of this group was held in the spring of 1947.

Among the studies in Food and Nutrition were the following: losses of vitamins and palatability during household and quantity cooking and holding of certain vegetables; vitamin retention under certain conditions of cooking in frozen peas, frozen lima beans, frozen and fresh broccoli; the thiamine and iron content of potatoes; the quality and nutritive value of yeast breads, quick breads, and other baked products; the preparation of precooked frozen foods; the cooking of frozen foods; the palatability of beef roasts; iron metabolism in women; vitamin metabolism of human beings; the effect of fluctuating storage temperatures on the quality of frozen foods, and the effect of various factors on the quality of soft meringues.

The Department of Institution Management has been handicapped for carrying on an extensive research program because of the limitations of space and staff due to the heavy demand upon this group for campus food services. Some work, however, was done. Most of the research studies in this department concerned the retention of ascorbic acid and palatability during quantity cooking of certain vegetables. In addition, a survey was made of the literature on work simplification as it applies to the field of institution management, and the application of the principles of motion and time study to three areas of work in the Home Economics cafeteria.

The Department of Textiles and Clothing continued a study of clothing of preschool children as it relates to their behavior and development, in cooperation with the Department of Child Development and Family Relationships.

The Rural Housing Research project, inaugurated in 1944 with an appropriation by the State Legislature for \$10,000 for a year, received a renewal of the grant for the current year. Studies were made of remodeled and new farmhouses and of the principles of farmhouse planning.

THE LIBRARY

An additional staff member and more part-time workers were added to the library force to care for the increased demands. Circulation of books mounted from 65,542 in 1945-1946 to 80,195 in 1946-1947; of periodicals from 3,010 to 4,547; reserve items intensively used included 4,254 items. Fifty-eight volumes were borrowed for the use of faculty and graduate students from 23 colleges and universities. The total number of volumes added during the year was 1,260, an increase of 455 volumes over the preceding year.

The committee of librarians set up to assign priorities for purchase of material obtained in Europe by the Library of Congress Cooperative Acquisition Program gave the first priority in the "domestic science" classification to this library.

APPROPRIATIONS

The fiscal authorities of the State were liberal this year in supplying a large part of the funds requested. Twelve of the seventeen new positions asked for were granted; increases in maintenance and operation necessitated by increased costs and expanded program were allowed in large part. A new research fund of \$10,000 was granted, making the second substantial research project of the College to be financed by the State.

Federal appropriations for teaching, extension, and research have remained the same in amount as those for the year 1945-1946 except for the Bankhead-Flannagan funds, which were increased somewhat.

At the close of my first year of service to Cornell University, I should like to take this opportunity to thank you for your unflinching understanding and help, and to express my appreciation for the exceptional quality of cooperation I have had from our faculty and from the administrative officers of the University.

ELIZABETH LEE VINCENT,
Dean, New York State College of Home Economics.

APPENDIX XV

REPORT OF THE ADMINISTRATIVE COMMITTEE OF THE NEW YORK STATE SCHOOL OF INDUSTRIAL AND LABOR RELATIONS

To the President of the University:

SIR: We have the honor to present the Report of the New York State School of Industrial and Labor Relations for the year 1946-1947.

In the second year of the School's operation, substantial progress has been made in the development of the residence program at the undergraduate and graduate level. All of the required courses plus a number of electives are now being offered. Considerable expansion in the extension program throughout the State of New York—the School's second area of responsibility—has also been undertaken. The organization of a research and information service, which is the third function assigned to the School, has also received much attention, but the results of this planning will not be apparent until 1947-1948.

The School has continued to receive excellent financial support from the State of New York. In 1946-1947, the total appropriation for the School was \$375,000. For 1947-1948, the State has appropriated \$425,000, plus tuition income for equipment.

The completion in the fall of 1946 of temporary headquarters for the School in seven prefabricated buildings at the corner of Campus Road and East Avenue has greatly facilitated activities. The 16,000 square feet of space provides office, classroom, conference, library, and laboratory accommodations. The School has purchased a considerable amount of equipment which can be used in the permanent building for which plans are now being drawn.

Dean Irving M. Ives, following his election to the United States Senate, resigned on February 1, 1947. Senator Ives' leadership during the vital formative years of the School accounts for the progress which has been made. The staff regretted his resignation, but recognized the importance of his new duties. In the absence of a Dean, the administration of the School has been under the direction of an Administrative Committee composed of Professors Lynn A. Emerson, Maurice F. Neufeld, and Donald J. Shank. Professor Neufeld served as the Secretary of the School.

The selection as Dean on June 16, 1947 of Dr. M. P. Catherwood, Commissioner of Commerce of the State of New York, and Professor-on-leave from Cornell University, means that the School will have continuing able leadership in the years ahead. Dean Catherwood will assume the Deanship on July 1, 1947.

STAFF

Staff additions during the current year have been made in terms of expanding student needs. C. Kenneth Beach was appointed November 1, 1946, as Professor to work particularly in the field of Industrial Education. Dr. Beach also teaches the required course for all undergraduates in Workers and Jobs. John M. Brophy was appointed on March 1, 1947 as Assistant Professor in the field of Industrial Education. Miss Eleanor Emerson was added to the instructional personnel of the

Extension office. The School was fortunate in securing the part-time teaching assistance of several persons to supplement the regular teaching staff. Andrew S. Ormsby, personnel director of the Worthington Pump and Machinery Corporation, spent one day each week on the campus during the Spring term, offering a course in Advanced Personnel Management. Michael R. Hanna, General Manager of WHCU, the Cornell radio station, offered a course in Public Relations. B. F. Willcox, Associate Professor of Law in the Law School, was also elected a member of the faculty of the School.

RESIDENT PROGRAM

Undergraduate Students: During the year, the faculty has reviewed with a student committee the prescribed undergraduate curriculum of the School. Certain major revisions have resulted. By eliminating a number of required courses, the prescribed hours were reduced from 99 to 84. The action will enable students in the School to elect additional courses of special interest offered either by this faculty, or by other faculties of the University. At the same time, the orientation course for freshmen was reorganized as a one-year survey of Economic History. A required course in Business and Industrial History has been added to parallel the required course in Labor History. A survey course on Industrial and Labor Welfare Legislation has also been added. Arrangements have been completed whereby the School of Business and Public Administration will offer to all seniors in this School a one-term course in Business and Public Administration. These changes become effective in September of 1947.

In 1946-1947, the resident enrollment in this School reached a maximum of 271 students as indicated in the following table:

RESIDENT ENROLLMENT

	<i>Men</i>	<i>Women</i>	<i>Total</i>
<i>Fall term 1946</i>			
Undergraduate and special students	207	42	249
Graduate students	12	—	12
			261
<i>Spring term 1947</i>			
Undergraduate and special students	215	39	254
Graduate students:			
ILR	11	1	12
Industrial Education	5	—	5
			271

This represents a substantial increase over the first year of operation. At the end of June 1947 the academic status of the 220 undergraduates who expect to continue their work in September was as follows: Seniors, 72; Juniors, 83; Sophomores, 57; Freshmen, 5; Specials, 3. The School, it will be noted, now has an undue proportion of Juniors and Seniors. This is due in considerable extent, to the heavy proportion of veterans enrolled—72%, many of whom were admitted with advanced standing from other institutions. More underclassmen will be admitted in September 1947 and in future years.

On June 16, 1947, Bachelor of Science degrees were awarded to the first 11 undergraduates of the School—9 men and 2 women. An anonymous gift of \$1,000 to the School made possible the creation of the Daniel Alpern Memorial Prizes to outstanding graduates of the School. The first prizes were awarded in June 1947.

Graduate Students: As the table above indicates, the School has had a limited number of graduate students during the past academic year. In September of 1947, the number of graduate students in Industrial and Labor Relations will be increased to 17, and in Industrial Education, will remain at 5. In the Spring of 1947, for the first time, a wide-spread announcement of the availability of graduate assistantships was made. As a result, more than 150 prospective graduate students from this country and abroad were given consideration. It is clear that the School should, in

the early future, expand its facilities to care for graduate students. Because of the prior development of the undergraduate program, only limited staff resources have so far been available for the teaching of graduate seminars. This situation must be corrected.

At the February 1947 Commencement, the second Master of Science in Industrial and Labor Relations was awarded. In June 1947 three candidates who had completed the work in Industrial Education were graduated—two as Masters of Science in Education and one as Doctor of Philosophy.

Visiting Speakers: The School has further developed the use of visitors from government, labor, and management agencies as adjuncts to the teaching process. These men and women who spend from one to several days on the campus are available, not only as resources for classes, but also for informal discussions with students. A typical six week's period included discussions by the following: the personnel director of the Easy Washing Machine Company; a symposium by the 3 United States representatives to the International Labor Office; the research director of the Textile Workers Union; the treasurer of the Eastman Kodak Company; the educational director of the International Ladies' Garment Workers Union; the works manager of the Inland Steel Company; and the vice-chairman of the President's Council of Economic Advisers.

Work-Training: The work-training program in which undergraduates are required to spend their summers in employment with government, labor, and management organizations, has been further developed during the year. A report on the experience during the first summer, "Work-Training for College Students in Industrial and Labor Relations", was published in December of 1946 as Student Personnel Bulletin No. 1. In the summer of 1947, approximately 150 of the 220 students who are expecting to continue their work in September of 1947, are employed. A continuing problem is the ability to secure the number of necessary paying jobs within labor organizations to assure students of experience with both management and labor. The School hopes to work closely with national and local labor organizations in developing additional opportunities.

EXTENSION

During the year 1946-1947, the Extension program of the School was substantially broadened. Classes or lectures were sponsored in Albany, Auburn, Binghamton, Buffalo, Glens Falls, Ithaca, Niagara Falls, and Utica. There were more than 2,700 enrollments in the 62 courses offered in these eight centers. In addition, more than 1,000 persons registered for lectures.

No formal pattern has been set in the extension activities, but the program is developed to meet local needs. In a typical center, the School, after extensive conferences with local labor and management leaders, announces a series of 4 or 5 lectures. In the course of the lectures, the participants are asked to indicate the types of courses that would be valuable to them. With the cooperation of local leaders, teachers are secured by the School to carry on the desired courses. These usually meet one night a week for 6 to 12 weeks in some convenient public building. Those who complete the course are awarded certificates by the School. Among the more popular courses during the past year have been the following: Introduction to Industrial and Labor Relations; History of the American Labor Movement; Parliamentary Law and Effective Speech; Contract Negotiations; Human Relations in Industry; Current Trends in Labor Legislation; Introduction to Personnel Management.

The School hopes to be able to expand these activities on a sound basis throughout the State as demand for such services develops and as increased financial and personnel resources become available.

Institutes: On July 31-August 1, the Extension Division of the School will sponsor a conference on the campus of approximately 50 industrial training directors from the larger New York State industries on the development of desirable attitudes in human relations.

On August 20-22, the Extension Division will also hold an invitational conference at Cornell of 200 state leaders from labor, management, and government with nationally-known speakers. The program will deal with such important questions

as wages, prices, profits, and productivity; frontiers in human relations; social security; the role of government in industrial and labor relations. When additional space for summer visitors becomes available on the campus, a number of other conferences of varying types are planned.

RESEARCH AND INFORMATION

The Research and Information program, which is the third major area of the School's work, will be developed during the coming year. It is expected that a comprehensive survey of the research needs and interests of governmental, labor, and management groups in the State will be carried on. This will be of value in outlining the actual research program.

Library: The library resources of the School, which jointly serve the resident, extension, and research programs, are being expanded so that the School will increasingly become a source of authentic information on problems in this field. The book and pamphlet collection has grown rapidly in the past year. It now comprises an estimated 10,680 volumes. Periodicals and serial publications are an important part of the School's resources and a wide coverage is assured through the receipt of 210 periodicals, 29 house organs, 176 labor-union journals, 54 press releases, 53 serial publications, and 30 labor-management services.

During the year, the School has secured a complete set of the reports of the International Labor Organization which makes the School library one of the few sources of this material in the United States. A number of special gifts have been received during the year.

As an adjunct to the library, the School is collecting films, film strips, records, and other audio-visual aids. This now includes 95 film strips, 31 motion pictures, and 30 records. This material is now available for the use of the School's resident and extension faculty.

CONCLUSION

In the first two years of its operation, the School, with the continuing assistance of industry, labor, and governmental groups throughout the State, and with the excellent cooperation of the administration and other faculties of Cornell University, has made encouraging progress toward the achievement of the goals which were set for it by the people of the State of New York.

The Administrative Committee of the New York
State School of Industrial and Labor Relations,
LYNN A. EMERSON,
MAURICE F. NEUFELD,
DONALD J. SHANK

APPENDIX XVI

REPORT OF THE DEAN OF THE SCHOOL OF BUSINESS
AND PUBLIC ADMINISTRATION

To the President of the University:

SIR: I have the honor to present this report of the School of Business and Public Administration for the academic year, 1946-1947.

The School has completed its first year of operation and is now ready to offer its full two-year program of instruction.

THE STUDENT BODY

At the beginning of the year, forty-one students were registered in the School. During the course of the year, four students were compelled to withdraw so that thirty-seven students actually finished the work of the first year and will return in September to complete the second year's work of the School, and will qualify for Master's degrees in June, 1948.

In September, 1947, some sixty-five to seventy new students will be registered for instruction in the first year of our program. About half of this number will be students who have already received baccalaureate degrees, and the other half will be double registrants from several of the undergraduate divisions of the University. Consequently, the student body during the coming academic year will consist of approximately one hundred students whose previous academic work has been done at twenty different colleges or universities. I have been very much pleased by the fact that we have received applications for admission from students who have hitherto attended a wide range of other institutions. Applications for admission for the coming year have been of high quality. Because of the limitations necessarily imposed by the allotment system, the School has been able to admit only about one of every four eligible applicants.

Members of the first year's class in the School are now working in various parts of the country under our summer employment program. Under this program, students are required to spend ten weeks during the summer between the first and second years in approved employment with a business concern or a public agency. We have received excellent cooperation from alumni friends of the School in getting this summer employment program into operation. A number of our students have been employed by concerns with which Cornell alumni are connected. Professor Wallace Sayre, Director of Student Personnel, has done a fine job in launching our first summer employment program successfully. This program is a most important part of the training which the School offers to its students.

With the steady increase in the cost of living and with the necessary increases in tuition and fees, there are increasing signs of financial strain among the students in the School. Consequently, the scholarship funds so generously provided by Mr. F. P. Murphy, Mr. Claude C. Harding, and their company, The Grolier Society, are proving to be of very great help to us. During the coming year, at least ten students will be receiving assistance from these funds.

THE FACULTY AND THE CURRICULUM

The Board of Trustees has approved the appointment of two additional members of the faculty—Mr. C. Hart Schaaf and Mr. William H. Childs, both of whom will come to us in September as Associate Professors. Unfortunately, Professor Shaw Livermore, for purely personal reasons, has resigned from the faculty in order to return to business in New York. Mr. Livermore's loss is a very real one and he will be hard to replace, but I am confident that a satisfactory replacement will be made before instruction begins in September, 1947.

During the past year, both the Law School and the College of Engineering have been most cooperative in offering special instruction to our students. Members of the Law School faculty will continue to offer our required course in Legal Problems of Business, and we shall also make use of their courses in Constitutional Law and

Administrative Law for some of our second-year students. Beginning in September, 1947, we shall offer our own work in Statistics, thus relieving the College of Engineering of that responsibility. We shall, however, continue to receive their assistance in the field of Cost Accounting.

During the coming year, the School will offer special courses for students from other colleges. The first of these will be a special course in Principles of Administration for seniors in the School of Industrial and Labor Relations. In the spring term, we shall offer a special course in Accounting for students in the Law School. A third course, International Administration, will be offered in the spring term by Professor C. Hart Schaaf for students in the School and for graduate students and seniors from other divisions of the University. The School does not admit students from other divisions of the University to most of its own professional courses. We desire to keep registration in these courses small, and we are attempting to integrate them closely. Consequently, the registration of a heterogeneous group of students from other divisions of the University is not desirable. The School is, however, anxious to provide instruction to mature students from other divisions of the University in areas of interest which belong primarily under our jurisdiction.

During the past year, the faculty of the School spent many hours devising and revising the curriculum of the School. During the coming year, the curriculum will continue to receive very careful attention. We have made progress of a very real sort, but we realize that our curriculum must be cast and recast from year to year.

SPACE AND EQUIPMENT

During the past year, the School has been housed in Goldwin Smith Hall. We are now preparing to move late this summer into the quarters in McGraw Hall which will soon be vacated by the Department of Sociology. These quarters should be reasonably adequate for the needs of the School for the next two or three years, although they are obviously not the kind of quarters that the School should permanently have. The Board of Trustees has appropriated money for improvements in McGraw Hall, but these are necessarily of a rather minor nature. Delay in moving into McGraw Hall has made it desirable for us to defer the acquisition of a considerable amount of equipment such as calculating machines, book cases, laboratory tables, and other office equipment. We have also deferred the purchase of many books pending the time that our library can be actually set up in McGraw Hall. Up until now, our library has been quartered in the Goldwin Smith Library on the third floor of Goldwin Smith Hall. Mr. Dane Baldwin, the librarian of the Goldwin Smith Library, has been very cooperative and most helpful, but with the increasing size of the School, we must expand our library facilities appreciably. Fortunately, the space provided in McGraw Hall includes the large area in the center of that building which is suitable to use as a reading room and library. During the coming year, we shall share this space with the University Library which has a real problem of its own in handling the reserve book requirements of the larger departments of the College of Arts and Sciences. Eventually, of course, the School will need all this space for its own use, but at the present time we are very glad to cooperate with the University Library in making this space available as a supplement to the badly crowded library facilities of the University.

THE FUTURE

With the School's full program of instruction in operation beginning in September, 1947, the Dean and the faculty can next turn their attention to planning a research program. We also expect to develop a series of summer institutes providing intensive instruction for businessmen and public officials while our regular students are off campus engaged in approved summer employment. I believe that there is a real opportunity here for us to make a constructive contribution to what is called "adult education." As the University's facilities become less crowded during the summer, the School will have an opportunity to bring to the campus during July and August groups of adults who will benefit from the kind of instruction which our faculty can offer.

PAUL M. O'LEARY,
Dean, School of Business and Public Administration.

APPENDIX XVII

REPORT OF THE DIRECTOR OF THE SCHOOL OF EDUCATION

To the President of the University:

SIR: I have the honor to present the report of the School of Education for the academic year 1946-1947.

During the past year the School of Education has changed its organization and has created new opportunities for education and service within the University. There has been a trend toward decentralization in the basic organization of the School as opposed to the policy of closer integration in previous years. All members of the Home Economics Staff have been transferred from the Department of Rural Education to the College of Home Economics to become a department of Home Economics Education in that College. Staff members of Rural Education who were concerned with Industrial Education have been transferred to the School of Industrial and Labor Relations to become a new division in that School. These units remain closely coordinated with the other educational departments but have complete budgetary independence. There is need for a similar development in the College of Arts and Sciences to take care of the needs of students in that college who desire to teach and to effect a better balance of courses in the School of Education.

NEW DEVELOPMENTS

The Board of Trustees of the University established a Bureau of Educational Research and Service in the School of Education November 1, 1946. The purpose of this office is to carry on research in education and to provide services to the University. An initial budget of \$5,471.81 was provided, of which \$3,450 is to be a recurring item. The Bureau was set up in Stone Hall and has been equipped and staffed. Several research projects have been completed by the staff and, with the help of members of the faculty, guidance service has been given to all students sent from the various college offices. Professor A. D. Woodruff was appointed director of the Bureau with an advisory committee of five staff members. The work of this office is coordinated with that of the University Testing Service which has since been established by the University Faculty. The facilities and machines of these offices are widely used by faculty and graduate students.

As a result of a study and recommendations of a committee on In-Service Training of Extension Workers, provision has been made in the School for graduate work in Extension Education. Professor Paul J. Kruse was made professor of Extension Education to work with a committee on this program.

In response to a persistent request from school administrators in the state and in conformity with the practices of other major universities, the School of Education recommended to the graduate faculty and Board of Trustees that the Doctor of Education degree be awarded at Cornell. This request has been granted and the new degree will be offered beginning July 1, 1947.

SPECIAL RESEARCH

Under the auspices of the State Council on Rural Education and in cooperation with J. Cayce Morrison, Assistant Commissioner of Research, and advisory committees representing the state associations of city and village superintendents, district superintendents, and secondary school principals, Professor Julian E. Butterworth and his assistants have concluded a two-year study of the Intermediate School District in New York. This study was authorized by the Commissioner of Education and the Board of Regents and the funds for its execution were made available by the state legislature.

During the year, forty-seven studies or research problems have been completed by graduate students and twenty-nine others are in process of development.

FACULTY

Professor R. M. Stewart retired July 1, 1946, as head of the Department of Rural Education and as Acting Director of the School of Education.

Professor Roy Olney was appointed to take charge of the vocational agriculture program in the Department of Rural Education, and was promoted to the rank of Professor.

Dr. Victor Schmidt was appointed as Assistant Professor October 16, 1946, to replace Professor Phillip Johnson in the field of Science Education.

Clarence Schultz was appointed November 15 to succeed Allan Hurlburt as director of the Placement Bureau.

Professor M. Lovell Hulse resigned as of July 1 as Associate Professor of Education to give full time to his work as Assistant Dean and Secretary of the College of Arts and Sciences.

Professor F. S. Freeman has been transferred to the Department of Psychology.

Dr. C. Kenneth Beach was appointed Professor of Industrial Education November 1, 1946.

Dr. John M. Brophy was appointed Assistant Professor of Industrial Education March 1, 1947.

Dr. Asahel D. Woodruff was promoted to the rank of Professor and was appointed Director of the Bureau of Research and Service and Director of the University Testing Service.

Helen Moser was appointed Assistant Professor of Home Economics October 1, 1946.

Mrs. Helen Hoefler was appointed Associate Professor of Home Economics Education April 1, 1947.

Professor Thomas L. Bayne Jr. was promoted to the rank of Associate Professor.

Professor A. L. Winsor was appointed Director of the School of Education and Head of the Department of Rural Education July 1, 1946.

ENROLLMENT

Due to an extremely heavy turnover and an expanding demand, the need for teachers on all levels remains acute. The resultant rising salaries are probably responsible for the large numbers seeking enrollment in graduate schools. The following tables show the record breaking numbers seeking advanced degrees this year. This load, together with the large number of teachers in the Summer Session and Extramural courses, constitutes a heavy drain on our manpower and limits the amount of personal research that can be undertaken.

	<i>First term</i>	<i>Second term</i>	<i>Total</i>
I. No. of different students registered			
a. With Education as a major	98	97	134
b. With Education as a minor	15	17	24
II. No. who are candidates for:			
a. Ph.D. (Major in Education)	24	31	35
b. Ph.D. (Minor in Education)	6	9	10
c. M.A. or M.S.	37	34	51
d. M.S. in Ed. or M.A. in Ed.	38	31	53
e. Other degrees	8	9	9
f. No degrees	—	—	—
III. Geographical Distribution			
a. No. of different states represented	19	18	21
b. No. of foreign countries represented	3	4	4
c. No. from New York State	82	67	103

The following tables showing undergraduate enrollment reflect the low interest in teaching during the past two years.

PRESIDENT'S REPORT

INDIVIDUAL REGISTRATION—1946-1947

<i>Education</i>	<i>Rural Education</i>		
	<i>Fall</i>	<i>Spring</i>	<i>Total</i>
Freshmen.....	5	17	21
Sophomores.....	55	112	160
Juniors.....	62	119	162
Seniors.....	96	107	179
Special students.....	13	22	31
Totals.....	231	377	553

Under the legislation approved by the Executive Committee, part-time non-resident students, who have not been admitted to the Graduate School, could enroll in extramural courses or in on-campus courses. There were 29 such students registered in almost as many different courses on the campus this year. The total enrollment for extramural courses for the academic year and the summer session is classified as follows:

On the graduate level.....	88
Undergraduates.....	64
Total.....	152

PLACEMENT SERVICES

It will be noted from the accompanying tables that the placement service activity is increasing rapidly, both in the number of placements and the number of inquiries from administrative officers. With a total of 3,465 registrants using the Bureau to try to obtain better positions, the burden on this office makes it very difficult to operate with part-time help. This is our most important public relations office. Any failure to act promptly on requests for information creates immediate resentment and ill will. Under the present arrangement we are managing this service with a graduate student, with approximately a new director each year. We are anxious to obtain greater stability for this work.

PLACEMENTS OF THE BUREAU FROM JUNE 1, 1946 TO JUNE 1, 1947

<i>Field</i>	<i>College</i>	<i>Secondary</i>	<i>Elementary</i>	<i>Private</i>	<i>Totals</i>
Administration.....	3	18	—	2	23
Agriculture.....	2	38	—	1	41
Business Education.....	1	—	—	—	1
Clinical Psychology.....	—	—	—	1	1
County, Farm and 4-H Agents.....	1	—	—	3	4
Education.....	6	—	—	—	6
Electrical Engineering.....	1	—	—	—	1
Elementary.....	—	—	2	—	2
Engineering Administration.....	1	—	—	—	1
Engineering Drawing.....	1	—	—	—	1
English.....	34	11	—	—	45
Game Management.....	1	—	—	—	1
Guidance, Counseling, and Personnel.....	6	5	—	—	11
History.....	15	1	—	—	16
Home Economics.....	8	47	—	—	55
Industrial Education.....	1	—	—	—	1
Languages.....	9	8	—	1	18
Librarian.....	—	1	—	—	1
Mathematics.....	2	7	—	1	10
Miscellaneous.....	1	—	—	1	2
Music.....	2	—	—	—	2
Philosophy.....	1	—	—	—	1

<i>Field</i>	<i>College</i>	<i>Sec- ondary</i>	<i>Elemen- tary</i>	<i>Private</i>	<i>Totals</i>
Physical Sciences (including biological)	20	14	—	—	34
Political Sci. and Govt.	1	—	—	—	1
Psychology	5	—	—	—	5
Psychometrician	1	—	—	—	1
Social Science	2	12	—	—	14
Sociology	1	—	—	—	1
Speech and Drama	2	—	—	—	2
Veterans Administration	—	—	—	4	4
Totals	128	162	2	14	306

Total registering with the Bureau from June 1, 1946 to June 1, 1947: 99 men, 63 women.

Number of Vacancy Notifications from June 1, 1946 to June 1, 1947:

June	197	January	292
July	353	February	426
August	302	March	630
September	104	April	661
October	88	May	525
November	85		
December	98	Totals	3761

The ominous decline in the number of qualified young men and women studying to become teachers seems to have been checked, but the need for more candidates in this field remains critical. This is especially true in the field of vocational agriculture, where the turnover has been very high and the demand expanding during the past five years. The demand for teachers in this field is indicated by the fact that as much as \$4,000 has been offered this year for our inexperienced teachers of agriculture for the secondary schools. Within two years we hope to be graduating our traditional percentage of approximately 16% of the total graduates of the College of Agriculture and would like to increase that percentage, if possible.

In the meantime, we are attempting to upgrade the teachers of vocational agriculture already in the field, many of whom are not well qualified, by providing courses in special subject matter fields, such as poultry and potato diseases, and offering courses in Agricultural Education through the extramural organization. Special efforts are also being made to improve the training of teachers in Science Education for rural schools.

A. L. WINSOR,
Director of the School of Education.

APPENDIX XVIII

REPORT OF THE DIRECTOR OF THE SCHOOL
OF NUTRITION

To the President of the University:

SIR: I have the honor to present the report of the School of Nutrition for the year 1946-1947.

INSTRUCTION

In June, 1946, the Board of Trustees established two degrees, Master of Nutritional Science and Master of Food Science, to be administered by the School and awarded on the completion of a two-year curriculum. The regulations governing the admission of students provided that applicants must hold a bachelor's degree, except that admission would be open to Cornell undergraduates at the end of the third year, under specified conditions, as double registrants. In accordance with these provisions, 15 students were admitted for the fall term, of which three were double registrants. Five additional applicants were admitted at the beginning of the spring term. The registration in the School as of June, 1947, was as follows: candidates for the degree of Master of Nutritional Science 13, candidates for the degree of Master of Food Science 4, special students 1. One student who was admitted with advanced standing was able to complete the requirements for the degree of Master of Food Science and received his diploma in June. Thus, Edward W. Pitz, Jr., became the first graduate of the School.

Two new courses, "Elementary Food Engineering" and "Elementary Chemical Engineering", have been set up with the cooperation of the College of Engineering to provide students who are candidates for the Degree of Master of Food Science with some understanding of the engineering principles underlying food processing. A new course entitled, "Special Topics in Food Biochemistry" was offered for the first time in the spring term.

A training program for students interested in the field of nutrition as applied to public health was placed in operation during the past year. Through the cooperation of the Tompkins County Public Health Committee and the Nutrition Bureau of the New York State Department of Health, some supervised field experience was made available to students training for positions as nutritionists in health or welfare agencies. Three students have had the benefit of this experience. Progress has been made in obtaining necessary course offerings in the University to round out a proposed curriculum for training in the field of nutrition as applied to public health.

RESEARCH

The comprehensive research program dealing with frozen foods, equipment and services has been continued. The operation of 795 freezers, distributed in Tompkins County with the cooperation of the equipment manufacturers who are supporting this program, has been followed and the experiences of the users have been recorded.

A number of supplementary laboratory studies have been in progress. The projects include engineering studies on farm and home freezers; biochemical studies on color deterioration, freezing rates, desiccation, and fat rancidity; economic surveys on cost and availability of frozen and canned foods; and fruit and vegetable variety studies, including such products as frozen peaches and peas. These studies have been the basis for several publications in scientific and trade journals as well as in bulletin form. Distribution of a bulletin on home freezer construction reached 15,000 copies within a few months after publication, indicating that these studies are meeting a real need.

With the support of funds received from Mr. Paul Mazur, of New York City, a survey has been made of locker plant procedures and equipment throughout New York State. The data now being compiled should both help locker operators improve their current practices and also point the way to future research that may be needed.

Supported by fellowship grants from the Philco Corporation, studies have been

made of consumer reactions to frozen meats, the effect of salt in the cooking of frozen vegetables, and the effect of ultraviolet irradiation on rancidity of frozen pork, and work has also been initiated on frozen food packaging.

Under the sponsorship of the Office of Naval Research, studies on precooked frozen foods have been expanded to include various biochemical, bacteriological, and cooking aspects of this new development in food processing. The effect of diet on the stability of depot fats has been shown to be very large under certain conditions, a finding which may have implications in the storage of frozen meats. Storage studies have been carried out on a precooked frozen meal which rated high in palatability tests, and undesirable changes in precooked frozen foods ascribable to the packaging, to the freezing process, and to storage temperature have been brought out. Evidence has also been obtained to show that such foods frequently contain food poisoning strains of bacteria, emphasizing the need for rigid sanitary and temperature control.

Dietary and physiological studies

Studies supported by the Office of Naval Research have centered on problems of tooth erosion. Attention has been directed particularly to the effects of acid foods and beverages and to means of preventing deterioration of teeth under the influence of such acids.

Further work has been conducted on the project entitled "New Members of the B Group of Vitamins," which is supported in part by a grant from the Nutrition Foundation of New York City. The results indicate that at least three, possibly four, unknown B vitamins remain to be isolated and identified. Results have also been obtained with anti-folic acid compounds which show that folic acid may function in metabolism as the prosthetic group of an enzyme.

DIET TABLE AND COUNSELING SERVICE

The Special Diet Table, operated in cooperation with the New York State College of Home Economics and the Department of Clinical and Preventive Medicine, has served to capacity. Thirty-two different students have been helped during the year. The dietary treatments have involved cases of diabetes, a variety of allergies, ulcer, ulcerative colitis, skin conditions, as well as weight problems. The students served have included representatives from practically all colleges and schools and all classes of the University.

The nutrition counseling service at the Student Medical Clinic has continued and expanded to include participation opportunities for suitably qualified graduate students who are preparing for work in this area. Slightly over 100 new students were contacted in the Clinic in the current year; in addition there have been 325 return visits of students for further consultation.

SPECIAL GRANTS

The following grants have been received by the School of Nutrition during the fiscal year 1946-1947:

\$5,000 from Mr. Frank E. Gannett to continue support of cooperative nutrition research dealing with special dietary problems of Cornell students.

\$30,220 from Central New York Power Corporation, Consolidated Edison Company of New York, Central Hudson Gas and Electric Corporation, New York Power and Light Corporation, New York State Electric and Gas Corporation, Rochester Gas and Electric Corporation, Buffalo Niagara Electric Corporation, Long Island Lighting Company, Staten Island Edison Corporation in further support of the expanded frozen food research program.

\$2,700 from the Nutrition Foundation for a study of a factor regulating calcium deposition in the arteries, joints, and muscles of animals.

\$5,000 from the Nutrition Foundation to continue studies on the chemistry and function of the newer members of the vitamin B complex, with special reference to those possessing antianemic activity.

\$13,048 from the Office of Naval Research in further support of studies on dietary factors concerned in mouth and tooth deterioration.

\$6,000 from the Philco Corporation to renew its grant to support four fellowships for studies on frozen foods.

\$3,000 from the Robert Gould Research Foundation, Inc., to support two fellowships to "be awarded to candidates who, on the basis of their scholastic accomplishments and personal qualifications, are judged to have the greatest promise for productive careers in the field of nutrition."

FACULTY

Since July 1, 1946, Lawrence B. Darrah, Associate Professor of Marketing, and Herrell DeGraff, Associate Professor of Land Economics, have been added to the faculty by dual appointment. James B. Evans has been added as Research Associate.

Resignations during the year included: W. M. Curtiss, Associate Professor of Marketing, and F. A. Harper, Professor of Marketing.

L. A. MAYNARD,
Director of the School of Nutrition.

APPENDIX XIX

REPORT OF THE DIRECTOR OF THE SUMMER SESSION

To the President of the University:

SIR: I have the honor to submit on behalf of the Administrative Board of the Summer Session the following report for the Session of 1946.

Professor H. R. Anderson, Director, resigned as of February 1, 1946. Professor M. L. Hulse, Assistant Director, who then became Acting Director, resigned as of July 1, 1946. I was appointed Director, effective July 1, and Professor W. A. Smith acted as Assistant Director during the six-weeks session. Dean Sarah G. Blanding and Professor E. J. Simmons, members of the Administrative Board, resigned as of July 1, 1946; appointments to fill these vacancies were not made within the period of this report. The success of the Summer Session, 1946, may be largely attributed to the skillful direction of Professor Hulse during the planning and admissions period.

The Administrative Board revised the rules governing admissions in order to improve the quality of instruction for upperclassmen, graduate students, teachers, and other mature workers. By action of the Board no students were admitted from institutions other than Cornell University who had not completed half the hours required for the bachelor's degree at their institutions. The group eliminated by this regulation comprised approximately one-fourth the prewar registration. The change in level of education and maturity has noticeably affected the course-offerings, course-content, and extracurricular educational program. The Board hopes that, as resources permit, the offering of graduate seminars, specialized technical and vocational courses, and informal and personal direction of research will be increased so that the University may in still greater measure serve teachers and other professional workers during the summer months.

To develop this program and serve the large number of service men anxious to advance their college work, the Board expanded the curriculum from 160 courses in 1945 to 250 courses and increased the faculty from 104 to 207. It reintroduced courses in the four Schools of Engineering, and in the Departments of Chemistry, Agricultural Economics, Agricultural Engineering, and Floriculture. Two innovations warrant special notice. An Extension Service Summer School, July 1-20, for extension workers interested in professional improvement, was a joint undertaking of the Colleges of Agriculture and Home Economics; Professor L. D. Kelsey was in charge. The School of Education sponsored a conference for Home Economics teachers July 1-6.

The Office of the Summer Session mailed 5,500 copies of a Preliminary Announcement to colleges and universities and to secondary-school principals, and 2,242 copies of the Preliminary Schedule of Courses to inquirers. It distributed 3,500 copies of the Preliminary Announcement of the College of Home Economics to supervisors and teachers in New York State and throughout the nation, and 2,500 copies of the pictorial Announcement of the Extension Service Summer School. It supplemented these announcements with advertisements in nine state and four other journals. It published 7,500 copies of the sixty-four-page Announcement. I

have found no satisfactory measure of the effectiveness of these means of distributing information.

The return in force of men from the armed services anxious to make up deficiencies in their academic programs resulted in a sharp increase in undergraduate enrollment. As a result, admissions were closed to undergraduates from outside the University on June 10. The graduate registration reflected the disturbed conditions in public schools; though it increased from 545 in 1945 to 893 in 1946, it was only 60% of the last prewar registration. Data on attendance follow:

ATTENDANCE

	1944	1945	1946
Men.....	228	231	1,516
Women.....	618	839	735
Total.....	846	1,070	2,251

ATTENDANCE BY SCHOOLS

	1944	1945	1946
University Summer School.....	567	773	1,628
State Summer School of Agriculture.....	376	383	635
State Summer School of Home Economics..	32	143	193
Summer School of Hotel Administration.....	83	101	206
Total.....	1,058	1,400	2,662
Less double registrants.....	212	330	411
Total.....	846	1,070	2,251

ATTENDANCE OF UNDERGRADUATES

	1942	1943	1944	1945	1946
Cornell.....	816	43	70	149	1,055
Other Institutions.....	215	111	249	377	319

CLASSIFICATION OF TEACHERS IN ATTENDANCE

	1944	1945	1946
Colleges and Universities.....	16	27	104
Junior and Senior High Schools.....	167	102	300
Principals, Superintendents, Supervisors.....	32	37	43
Grade School.....	6	24	28
Others (Normal Schools, Junior Colleges, etc.).....	84	161	91
Total.....	305	351	566

CLASSIFICATION OF STUDENTS BY GEOGRAPHICAL DISTRIBUTION

	1944	1945	1946
New England.....	56	64	175
Middle Atlantic States, excluding New York.....	40	143	343
New York.....	645	704	1,236
South.....	39	61	146
Southwest.....	10	10	29
Rocky Mountain States.....	0	1	14
Middle West.....	41	57	213
Pacific Coast.....	3	6	20
Foreign Countries and Canada.....	12	24	75
Total.....	846	1,070	2,251

CHARLES W. JONES,
Director of the Summer Session.

APPENDIX XX

REPORT OF THE DIRECTOR OF MILITARY TRAINING

To the President of the University:

SIR: I have the honor to submit this report of the Department of Military Science and Tactics for the academic year 1946-1947.

GENERAL

The Fall Term 1946 marked the beginning of the postwar program for all ROTC units. The hours of instruction for each subject for each year were set forth in War Department directives, and universities were allowed a variance of ten per cent in the hours thus assigned. Due to the delayed opening of Cornell, all instruction was curtailed by this permissible ten per cent.

The course was carefully planned and instructors prepared detailed "lesson plans" for each period of instruction given. Special emphasis was given visual training aids and profuse use was made of sound moving picture films, film strips, charts, maps, and the blackboard. Most of the charts used were prepared under War Department supervision, but some were prepared by the Training Aid Section of this department.

During the present year an ROTC library was established at Barton Hall and, with the assistance of University Library personnel, an excellent start was made in this direction.

The following members of the Cornell University Faculty conducted lectures on subjects presented by this department: Dean W. A. Hagan, Professors A. E. Sutherland, K. M. Dallenbach, M. S. Neufeld, F. A. Southard, A. W. Smith, F. G. Marcham, M. Szeftel, and R. P. Feynman. Dr. E. C. Showacre was in charge of the course in Hygiene and First Aid for the Freshman students. Colonel G. L. McEntee, U.S.A. Retired, author and well known historian, conducted one lecture on "Evolution of Warfare" for Elementary Second-Year Students. The above named personnel contributed in a major way to the success of the instruction given throughout the year and proved an invaluable asset to this department. This cooperation and assistance by these individuals and their respective academic departments is deeply appreciated.

The ROTC was informally inspected on five occasions by members of the Staff of First Army at Governors Island, N. Y. Informal ratings given were "superior." The formal inspection of the unit occurred on May 13, 14, and 15. The rating for this inspection was "Excellent," being the highest obtainable.

The annual Presidential Review of the ROTC was held at Barton Hall at 2:30 P.M. on May 29, 1947. Awards were presented to students selected for outstanding performances within the department.

During the academic year many improvements were made in Barton Hall and the ROTC stables.

This department published an Announcement for the 1946-1947 sessions in which a detailed scope of each course is given.

ELEMENTARY COURSE

The Elementary Course is given to all cadets for the first two years as required by University regulations. This instruction is common to all branches and arms of the Service. About one-third of the hours allocated to this course are devoted to dismounted drill, the other two-thirds being spent in classrooms.

The following subjects were given in the Elementary Course:

First Year: Leadership and Exercise of Command, World Military Situation, National Defense Act and ROTC, Maps, Military Organization, Hygiene and First Aid, Individual Weapons and Marksmanship.

Second Year: Leadership, Drill, and Exercise of Command, World Military Situation, Military Administration, Military Law and Boards, Evolution of Warfare, Physical Development Methods, Map and Aerial Photograph Reading.

ADVANCED COURSE

The units established at Cornell University for Advanced Course instruction are: Field Artillery, Signal Corps, Ordnance, and Quartermaster.

The objectives of this course are: (1) to produce college trained Reserve Officers to meet the needs of the Army during the postwar period, and (2) to preserve and expand the Reserve Officers' Training Corps organization in anticipation of post-war Reserve Officer requirements.

Many of the students taking the Advanced Course are veterans of many months' service. These men are highly regarded by the Elementary students and are making a major contribution to the general efficiency of the Unit.

"Leadership" is emphasized throughout all Advanced Course training and special instruction is given in correct methods of giving commands to a company or battery.

The following subjects were given in this course:

First Year Advanced Course: Military Leadership, Psychology and Personnel Management, Leadership, Drill and Exercise of Command, Military Problems of the United States, Occupied Territories, Military Law and Boards, Tactics and Technique of the Selected Arm or Service.

Second Year Advanced Course: Administration, Armored Artillery, Barrel and Breech Mechanism, Carriages Recoil Mechanisms, Sighting and Laying Equipment, Combat Intelligence, Communications, Drills, Ceremonies and Inspections, Field Artillery Weapons, Fire Direction, Firing Battery, Infantry Division Artillery, Infantry Regiment, Leadership, Map and Aerial Photos Reading, Methods of Instruction, Military Law, Motor Vehicles, Observed Fires, Reconnaissance, Selection and Occupation of Position, Small Arms, Unobserved Fires, Command Exercises, Military Problems of the United States, Occupied Territories.

ENROLLMENT 1946-1947

Elementary Course

	<i>Fall Term</i>		<i>Spring Term</i>	
	<i>Enrolled</i>	<i>Completed</i>	<i>Enrolled</i>	<i>Completed</i>
1st Year.....	588	466	494	481
2nd Year.....	356	328	210	202
Total.....	944	794	704	683

Advanced Course

First Year

	<i>Fall Term</i>		<i>Spring Term</i>	
	<i>Enrolled</i>	<i>Completed</i>	<i>Enrolled</i>	<i>Completed</i>
Field Artillery.....	56	53	44	43
Ordnance.....	11	11	13	13
Quartermaster.....	27	24	32	32
Signal Corps.....	10	9	11	10
Total:1st Year.....	104	97	100	98

Second Year

Field Artillery.....	6	6	17	15
Ordnance.....	0	0	2	2
Quartermaster.....	0	0	2	3
Signal Corps.....	0	0	0	0
Total:2nd Year.....	6	6	21	20

A camp of six week's duration will be conducted in the summer of 1947 for Advanced Course students.

ACADEMIC CREDIT

The amount of academic credit given for the Advanced Courses by the various schools and colleges in Cornell is, in general, adequate. However, a distinct lack of uniformity exists, some colleges giving adequate credit, while others do not.

The amount of academic credit given for the Elementary Course is entirely inadequate, most schools and colleges giving none.

FACULTY AND STAFF

Changes in the Army commissioned personnel during the year were as follows:

Relieved:

Captain Alfred F. Bolger, F.A., January 15, 1947

1st Lt. William J. Gay, Inf., October 30, 1946.

1st Lt. Wilbur L. Kahn, F.A., June 10, 1947

Assigned:

Major LeRoy F. Trott, S.C., September 27, 1946.

Major Henri F. Frank, F.A., November 27, 1946

Captain Mortimer J. Hutchison, F.A., December 2, 1946.

Captain Merrill C. Loudon, Ord., December 17, 1946.

Captain Warren P. Laws, A.C., June 16, 1947.

1st Lieut. Walter Callahan, A.C., June 16, 1947.

EXTRACURRICULAR ACTIVITIES

The Equitation Course: The War Department maintained 39 riding horses at Cornell during this academic year.

Throughout the year, regular formal riding classes were conducted for about 130 students and credit was given for these classes by the Department of Physical Education.

Polo: The polo team completed a most successful season on April 26, 1947, with a total of 11 victories and 3 defeats. Games were played with West Point, Princeton, Yale, Norwich, Culver, Essex Troop, Cortland Polo Club, and others.

Horse Shows: Two horse shows were held in the Riding Hall and the annual Horse Show was held on the afternoons of May 31 and June 1, 1947, on upper Alumni Field.

Pershing Rifles: Company E, 5th Regiment of the Pershing Rifles, is the Cornell Chapter of a national organization of Elementary students. This company of 25 members was used for demonstrational purposes for the Elementary students. The most important of such demonstrations was one given illustrating an infantry squad in the attack of a position, using blank ammunition, during the formal annual inspection.

Officers' Club: A cadet Officers' Club composed of Cornell ROTC Advanced Course students is functioning and is a distinct asset to this department.

Clef Club: This club is composed of Juniors and Seniors who are members of the ROTC Band. Its purpose is to further interest in the band and assist this department. It has an enrollment of 18 members.

"Big Red Band": The financial situation of the Cornell "Big Red Band" is not satisfactory. The band fund is solvent but funds are not available for the purchase of needed uniforms, equipment, and other required items.

The principal source of income for the band has been the profit from the annual Spring Day dance. The revenue from this dance becomes more uncertain as the increased cost of orchestras and the popular demand for decreased admission charges become more evident.

The band is a most important activity from the viewpoint of Cornell, particularly, when considering its appearance at football games. It has established a well-earned reputation over a period of years which is most important to retain.

At this time, it is desired to clarify the relationship of this department to the band. The band is not composed entirely of ROTC members; in fact, only about sixteen (16) of the one hundred and ten (110) students in the band are registered in the ROTC. In future years, no ROTC credit will be afforded members of the "Big Red Band." An ROTC Band will be organized in the Fall of 1947, but this will be much smaller than the "Big Red" and participation in it will constitute an extra-

curricular activity, as membership in it will not credit the student with the University requirements for military training. The "Big Red Band" will participate in activities of this department only to the extent of about four hours for an entire year. All other appearances will be entirely divorced from those of a military nature.

The Military Department will continue rendering assistance to the "Big Red Band" which includes supply, discipline, administration, and training (except Musical). Personnel of this department spend many hours outside of regular duty assignments in connection with activities of the band. However, when a request to put this band on a sound financial basis is made, it must be understood that this does not in any way benefit the Military Department but the University as a whole.

It is recommended that most careful consideration be given recommendations contained in letter, dated May 17, 1947, by Professor John M. Kuypers to the President of Cornell University, regarding the financing of this organization.

Scabbard and Blade: This is a national honorary society composed of selected cadet officers and candidates elected to membership by the Society. The Cornell Chapter, Company "C", First Regiment, was reactivated on May 3, 1947, and consists of 18 members.

RECOMMENDATIONS

1. That the necessity for a uniform system of academic credit in all of the schools and colleges be recognized and that such a system be adopted.
2. That adequate financial assistance be given to the band.

RALPH HOSPITAL,
Colonel, Field Artillery, and
Professor of Military Science and Tactics.

APPENDIX XXI

REPORT OF THE HEAD OF THE DEPARTMENT OF NAVAL SCIENCE

To the President of the University:

SIR: Although the Naval Reserve Officers Training Corps Unit was officially established at Cornell University in November 1945, this was a transition measure, and all students were former V-12 personnel upon whose curricula had been imposed certain Naval Science subjects. There were no graduates from this program in June 1946. By the beginning of the fall term of 1946, however, permanent legislation, in the form of the "Holloway Plan" had been enacted, and the program was established and conducted throughout the academic year, substantially in accordance with the principles agreed upon by the Navy and the University. Due, however, to the late passage of the legislation, it was not possible to select students for the NROTC program until after registration in the University; difficulty in reconciling University and Naval Science schedules resulted in an enrollment of only 103 students, distributed through eight of the Colleges and Schools of the University.

Following the cessation of hostilities, the rapid personnel demobilization of the Navy, which outstripped the discontinuance of the Navy's world-wide responsibilities and commitments, resulted in many changes in officer personnel and generally understaffed conditions. The Naval Science Department at Cornell was no exception; at the beginning of the year it was 25% understaffed and only one officer had had experience in academic work at Cornell during the previous year.

Administrative problems involved in the integration of the Naval Science Department into the University were manifold, but need not be elaborated upon in this report.

Despite these readjustment difficulties, a loyal, intelligent, and hardworking staff adequately covered the required academic field and overcame most of the administrative handicaps. The groundwork has been laid for a Naval ROTC unit at Cornell which will meet the most exacting standards of both the University and the Navy.

DESCRIPTION OF PROGRAM

It seems pertinent, in this first annual report, to delineate briefly the objectives and salient features of the Naval ROTC program as presently authorized and conceived.

Standard maximum enrollment of the Unit will be approximately 300, of whom not more than 90% may be "regular" students, and the remainder "contract" students.

Regular students are selected by a screening process of four main steps:

(a) A nation-wide aptitude test administered for the Navy by the College Entrance Board Examination Section.

(b) Physical examinations and interviews by officers of an Office of Naval Officer procurement.

(c) Consideration by State boards.

(d) Acceptance by the college of choice or designation.

Successful candidates may take any course leading to a baccalaureate degree and including certain minimum requirements in mathematics, physics, and English, plus prescribed Naval Science courses for four years. They must participate in a practice cruise or aviation indoctrination cruise of from six to eight weeks duration during each of three summers.

Uniforms, tuition, usual laboratory fees and \$600 annual retainer pay are provided by the Navy for four academic years.

Upon receiving their degrees and successfully completing the Naval Science requirements they are commissioned as Ensigns in the Regular Navy or Second Lieutenants in the Regular Marine Corps, and take rank and precedence with officers graduated from the U. S. Naval Academy in the same year. They must agree to remain on active service for not less than fifteen nor more than twenty-four months. They may elect to make the Navy a career, and if selected by the Secretary of the Navy to meet the needs of the service are accorded permanent commissions; otherwise, upon the termination of their period of active duty, they are commissioned in the Naval Reserve and required to retain that status until six years from the original date of commissioning.

Approximately fifty-one regular students have already been selected from civilian and navy sources and have been accepted by Cornell for entrance as freshmen in the fall of 1947.

Contract students are selected by the Professor of Naval Science at the time of registration in the University. Academic and laboratory requirements are exactly the same as for regular students. Contract students are required, however, to make only one cruise, of about three weeks' duration, normally between their junior and senior years.

The Navy Department provides contract students with uniforms and Naval Science textbooks throughout the four years, and pays them during their third and fourth years the daily value of a commuted ration, or approximately twenty-five dollars (\$25) a month.

Upon receiving their degrees and successfully completing their Naval Science requirements, contract students are commissioned as Ensigns in the Naval Reserve or Second Lieutenants in the Marine Corps Reserve and required to retain that status for six years from commissioning. They are not called to active duty except in time of War or National Emergency.

Approximately twenty-five contract students will be selected from the class entering Cornell in the fall of 1947.

During the last Academic year one officer was commissioned Ensign in the Regular Navy, one Second Lieutenant in the Regular Marine Corps, and seven as Ensigns in the U. S. Naval Reserve. These numbers will increase yearly, and there will, hereafter, be a predominance of those commissioned in the regular service for active duty.

CURRICULA

Three hours of classroom and two hours of laboratory work a week are required throughout the four-year course.

The Naval Science Curricula is prescribed by the Bureau of Naval Personnel, and is continually under review by experienced civilian educators in that Bureau,

naval officers who have specialized in the training and education field, and professors of Naval Science.

The current curricula is briefed below:

FIRST YEAR

First Semester NS101—Introduction to Naval Science, Seamanship, and Ship Handling, History and Structure of Naval Organization.

Second semester NS102—Communications, Tactics, Naval Law.

SECOND YEAR

First semester NS201—Ordnance and Fire Control.

Second semester NS202—Fire Control and Applied Naval Electronics.

THIRD YEAR

First semester NS301—Piloting and Navigation.

Second semester NS302—Advance Navigation and Tactics.

NS302M—Principles of War and Individual Weapons (for prospective Marine Officers).

FOURTH YEAR

First semester NS401—Naval Machinery.

NS401M (for prospective Marine Officers)—Tactics and Techniques.

Second semester NS402—Internal Combustion Engines, Ship Construction, Stability, Damage Control, Leadership, and Latest Developments in Naval Science.

NS402M (for prospective Marine Officers)—Amphibious Operations.

Laboratory work is conducted in conjunction with all academic subjects. All equipment is provided by the Navy. Additional equipment is, and will continue to be, requested as the necessity arises, and space and installation facilities permit.

Practical familiarity with naval installations, customs, and procedures is instilled during the summer cruises. During the summer of 1947, students participated in three cruises:

(a) Prospective regular juniors and seniors were attached to the Naval Academy Practice Squadron consisting of the battleships U. S. S. WISCONSIN and U. S. S. NEW JERSEY; the carriers U. S. S. KEARSAGE and U. S. S. RANDOLPH; the destroyers U. S. S. CONE, U. S. S. STRIBLING, U. S. S. O'HARE, and U. S. S. MEREDITH and visited the following ports: Rosyth, Scotland; Oslo, Norway; Goteborg, Sweden; Copenhagen, Denmark; Portsmouth, England; Weymouth, England; Plymouth, England; Greenwich, England; Woolwich, England; Guantanamo, Cuba; and Norfolk, Va.

(b) Prospective sophomore regulars were attached to heavy cruisers U. S. S. OREGON CITY and U. S. S. ALBANY and visited the following ports: Colon, Canal Zone; Port of Spain, Trinidad; San Juan, Puerto Rico; Guantanamo, Cuba; Hamilton, Bermuda; New York, N. Y.; and Norfolk, Va.

(c) Contract students were attached to the carrier U. S. S. LEYTE and the destroyers U. S. S. VESOLE, U. S. S. LEARY, U. S. S. DYESS and U. S. S. BORDELON. They embarked and disembarked at the Naval Air Station, Quonset, Rhode Island and spent the entire time at sea except for a visit to Argentina and Newfoundland.

ACADEMIC INTEGRATION WITH THE UNIVERSITY

The superposition of twenty-four hours of Naval Science classroom work throughout the four-year course plus two hours of laboratory work a week upon the degree requirements of the individual schools and colleges results in extremely heavy

schedules for some students. This problem has been partially solved in most cases by consultations with the faculties and faculty committees of the various schools, and the granting of degree credit for certain Naval Science subjects in the category of required or elective subjects, as appropriate, to the extent considered practicable without significant reduction in requirements for degrees for those students not connected with the NROTC program.

I am happy to state that the approach to the solution of this problem has been understanding and cooperative, and that, although University-wide uniformity in granting of credits would be desirable, the present method, based upon evaluation of curricula, is the rational procedure for producing mutually satisfactory results.

Elimination of duplication has been practicable in the cases of students in the College of Engineering, some of whose courses are more extensive and thorough in a general engineering sense than the Naval Science engineering course. The Naval Science Department grants credit for such courses, and conducts a special one-hour a week course for such students, devoted to Stability and Damage Control, which phases are not currently covered elsewhere in the College.

PHYSICAL FACILITIES

The activities of the Naval Science Department are now conducted in temporary structures in classrooms temporarily assigned in Olin Hall by courtesy of the Director of the School of Chemical Engineering. Such expedients were inevitable during the transition period and the stringency in construction generally, and on the whole, have been adequate.

However, the sites now occupied by the Navy "Gun Shed," and NROTC Headquarters will ultimately be required for other new Cornell construction, and the classrooms in Olin Hall by the School of Chemical Engineering. Moreover, the expanding enrollment in the NROTC will necessitate additional classroom, laboratory, library, supply, and administrative space and facilities.

Consolidation of these activities in permanent quarters designed for the purpose is the logical solution, and the only solution which will make practicable the establishment and maintenance by the Department of Naval Science of a high level of naval education, efficient utilization of the relatively short instruction periods available, and effective use of educational aids which the Navy has and will provide.

Detailed analysis of such a project has been prepared and approved by the Board of Trustees. It is recommended that measures be taken to effectuate this project with a priority consistent with the over-all needs of the University.

W. I. LEAHY,
CAPTAIN, U. S. Navy,
Professor of Naval Science.

APPENDIX XXII
REPORT OF THE DIRECTOR OF PHYSICAL EDUCATION
AND ATHLETICS

To the President of the University:

SIR: Dealing with the largest number of men students in history was not a sinecure for this department but it was handled satisfactorily. Space was the most urgent problem and this was true for both intercollegiate athletics and physical education.

Dressing quarters for athletic teams are confined principally to Schoellkopf Hall and this building was never designed to accommodate the large numbers of men out for sports today. Moreover there are many more teams supported by the Athletic Association in 1947 than in 1913 when Schoellkopf was built.

Although the athletic division grossed \$374, 085.68, a new high, a balance of only \$8,183.33 remained after expenditures which also set new records. Costs of equipment, excessive transportation expenses, a higher salary scale, purchase and erection of bleachers for basketball brought costs for one year's operations to \$365,-902.35.

At the end of the fiscal year June 30, 1947, the athletic division reserve was \$78,300.01. This will soon disappear with the payment for new steel stands and press box for the west side of Schoellkopf field now under construction and a deficit of about \$60,000 will result. This is an investment, however, which should pay dividends in the future.

There are greater demands on the funds of the athletic division than at any other time in history but that denotes progress and service. One rather stiff demand now imminent is an appropriation of \$180,000 to be added to the \$180,000 donated by alumni to build Moakley House. This work is expected to go forward this fall. Unlike the steel stands Moakley House is not an investment which is expected to pay financial dividends. In fact it will be a costly adjunct. It will pay returns in good will by accommodating visiting teams and we hope will prove beneficial to the morale of our own teams.

The succession of George K. James to the position of head football coach replacing Edward C. McKeever was the most significant occurrence. The saddest was the death of Nicholas Bawlf, varsity soccer, hockey, and lacrosse coach and director of intramurals. Nicky had worked for the Athletic Association for 27 years.

Tennis was the only sport which can claim a championship and that was divided with Yale in the Eastern Intercollegiate Tennis Association. All teams performed capably and crew, basketball, skiing, and swimming had excellent records.

Both men's and women's physical education programs are doing good work. Both, however, need their projected new gymnasiums before their work can reach full effectiveness.

ROBERT J. KANE,
Director of Athletics.

APPENDIX XXIII

REPORT OF THE CHAIRMAN OF THE DEPARTMENT OF
CLINICAL AND PREVENTIVE MEDICINE

To the President of the University:

SIR: I have the honor to present the report of the Department of Clinical and Preventive Medicine for the year 1946-1947.

In previous reports the work of this department has been reviewed. This year it seems fitting to report how this department, since its reorganization in 1940, has influenced Ithaca medicine. That the policy of medical control as practiced in the Infirmary and Clinic has been noted by the community, was brought out over a year ago when interested citizens invited representatives of Cornell medicine to discuss with them plans for obtaining better medical services for the whole community. An exploratory committee was formed to study ways and means of uniting all components of medicine in the community. After several meetings, the exploratory committee recommended that an action committee be formed, consisting of representatives from the city, the county, Memorial Hospital, and Cornell University. The objective of this committee was to formulate a plan for consolidating the medical facilities of these four agencies into one health center. The action committee had many meetings and hearings. In the spring of 1947 they summarized their deliberations in a published report. They offered four alternative plans: Plan A—a single unit directed and owned by Tompkins County and operated by a County Board of Managers, which would integrate all present services. Plan B—a single unit, likewise integrating all services, but with land owned and buildings erected separately by Tompkins County, Memorial Hospital, the City of Ithaca, and Cornell University; commonly used facilities to be contracted among them; management to be by a corporation having over-all authority and employing a top medical officer with full jurisdiction. Plan C—a single site owned by the county, with the facilities used by Tompkins County, the City of Ithaca, Memorial Hospital, and Cornell University, separately erected and managed; facilities used in common to be operated by the county; general management to be by the county under a board of managers employing a top medical officer with full jurisdiction. Plan D—a single site owned by Cornell University which would erect all buildings except those built and used by Tompkins County; management and all services to be provided by Cornell with the county contracting with the University for its needs.

At the time of the writing of this report, no further recommendations have come from the action committee. No one alternative plan has been advocated over another, and whether or not such an amalgamation of medical facilities will occur is highly speculative.

Another occasion when Cornell was asked to aid the community medically occurred last fall when, by unanimous vote of the Tompkins County Medical Society, a resolution was passed requesting the trustees of Memorial Hospital to petition the University for assistance in certain management problems. Acting on this request, the trustees of Memorial Hospital asked that a liaison board consisting of representatives of the trustees of Memorial Hospital and representatives of the University be established. This board was established soon after the first of the year. The Cornell representatives have made it clear that any move the University makes in assisting Memorial Hospital must be defensible from an educational point of view. This year Cornell has given Memorial Hospital assistance in patients' nutritional problems, in institutional management of dietary problems, and in office management. The Department of Clinical and Preventive Medicine has given assistance by establishing a resident program in the department of medicine at Memorial Hospital. This program was initiated after the Committee on Medical Education and Hospitals of the American Medical Association recommended that the base of the Infirmary residency be broadened to include work in Memorial Hospital. The Committee felt that restriction in diagnosis range, because of age group, did not allow for full bedside training. This program was approved by the

medical staff and by trustees of Memorial Hospital, and resident physicians under the administrative control of the Department of Clinical and Preventive Medicine were assigned periods of duty in the medical department of the Hospital. This move has been highly successful, and it is the hope of both the trustees and the medical staff of the Hospital that the program may continue and expand until all departments are manned by resident physicians. With this short résumé of Cornell's participation in community medical affairs, it becomes obvious that Cornell will play a part in medicine of the community henceforth.

The increase in the fee for clinical and hospitalization benefits, voted by the trustees last year, has enabled the Infirmary and Clinic to meet the rising costs of operation. It is true, however, that large capital expenditures could not be paid for from income in one year. Because the enrollment of the University jumped from seven to nine thousand students in the fall of 1946, provision for extra beds to meet the possible increased clinical load was established at the Infirmary. Thirty-seven temporary beds were made permanent beds. This involved considerable expenditure, one classed as capital investment rather than maintenance. The lack of convalescent recreation rooms at the Infirmary was solved this year by enclosing all porches. This will give convalescent recreational room facilities on every ward; a great advantage over a common recreation room where mutual contamination might occur. At the Clinic the transmission of students' charts was accelerated by installing a pneumatic transmitting device. This device strengthens the central record room at the Clinic, from which charts can be dispatched to any area of the Clinic in a matter of seconds. Efficiency in Clinic service was immediately noted, and the position of chart carrier eliminated.

Some replacement of obsolete equipment was necessary, but as the year came to a close, one could say with certainty that the wear and tear of the war years had been repaired and that facilities had been expanded. This year a large backlog of maintenance work, deferred because of labor shortages during the war, was reduced. Maintenance costs at the Infirmary and Clinic during the year exceeded by many times the amount of funds budgeted for this purpose.

It is appropriate to report that this year progress was made in all subdivisions of the department: instruction, clinical responsibilities, public health, preventive medicine, and research.

INSTRUCTION

This year more evidence was obtained relating to the lack of interest of students in college hygiene. An elective course was again offered, but was cancelled when but eight students requested registration. Preregistration for next term was less than this year. We have had a number of terms of similar experience in health education. It seems certain that the old formula in health education will not apply. There has been a growing resistance to hygiene by its previous definition. It seems quite probable that a positive interest in health education must be stimulated by different means. We have evidence in this direction, too. This year a course was offered in medical nutrition for students who had the proper prerequisites. The course was designed for graduate students in nutrition who needed insight into medical nutrition problems. In this course was included certain related subjects that were not taken up in the various formal courses or seminars to which these students had access. While this course was under the supervision of the nutritionist of the department, many of the medical staff participated in specific discussions. The mental hygiene course, offered in previous years, was not given as such this year. A seminar for advanced students in mental hygiene was substituted and was highly successful. Because of the large clinical load which the psychiatrist carries, a formal course in mental hygiene will not be given during the winter months; his entire attention, however, will be given to this subject in the summer session. This policy will allow advanced students who wish insight in this subject to obtain it in summer when many teachers, who are continuing their work in the summer sessions for qualification purposes, can also take advantage of the summer offering. Medical representation at nutrition seminars in the School of Nutrition continues. These have been instructive to the medical staff as well as to students. It is a fine supplementary program for the resident physicians. Another area in which health education has

been sponsored by the department is in the sphere of public health and nutrition. For some time there has been a liaison between the Public Health Committee of the county and the School of Nutrition. The program was designed by the medical nutritionist of this department and the district state supervising nurse. A few graduate students received experience in nutritional problems in the field. This relationship has worked out smoothly, and a few graduate students have received credit for the work they have done; others have obtained material for their theses. Probably the most interesting educational venture which the department has sponsored this year has been the training of resident physicians. When the Infirmary and Clinic was organized in 1940, it became obvious that the resident program would be the key to the clinical operation. At first it was hoped that the resident staff could be recruited from those young physicians who wished to pursue college medicine as a career. This year that point of view had to change. On advice of the Committee on Medical Education and Hospitals, which approved the residency as a mixed one, it seemed advisable to broaden the base so that physicians wishing resident training who did not wish to participate further in college medicine after the residency would not have lost time. To this end the resident training program was revised so that physicians who wished to pursue internal medicine would have assurance that their time was well spent. The program included not only the usual staff conferences at both the Infirmary and Memorial Hospital but, in addition, formal instruction by members of the Attending and Consulting Staffs, and teaching conferences with the Director. The resident program, since February, has been responsible for the admission of medical patients at Memorial Hospital and all patients at the Infirmary. It seems advisable to expand this educational program for young physicians, for at the moment we are in a period in this country when there are too few institutions equipped both by staff and facilities to carry on proper resident programs. If we do our part in giving young physicians good training, we must devote more energy to this problem; indirectly it will strengthen the department and mean better medicine for Cornell students.

CLINICAL RESPONSIBILITIES

Student Medical Clinic

Last year attention was called to the fact that in the clinic impersonal medicine was practiced during the war to an extreme degree. This did not indicate that high standards of practice and careful thought were sacrificed. On the contrary, very efficient care of illness was accomplished in that manner. Nevertheless, it was impersonal medicine. The practice of medicine should be a cooperative venture, and the stronger the doctor-patient relationship or the physician-patient interest, the more satisfactory is the job done. At the beginning of the academic year of 1946, this problem was studied with more vigor than previously. It became apparent that the attending physicians who see patients in the Clinic should, in so far as possible, have private offices, regular hours, and should be able to complete the circuit of illness by being the attending physician in the hospital when his patients required hospitalization. To meet that end, the attending system was reestablished. As a result, all patients referred from the Clinic to the Infirmary were admitted under the referring physician's name, and he carried the responsibility for adequate medical care. Patients coming directly to the Infirmary were assigned to attending physicians in rotation. Thus, the doctor-patient relationship was strengthened, and as the patients left the Infirmary they reported to the same physician at the Clinic who was responsible for them while they were ill.

The Clinic continues to maintain specialty clinics within the Clinic. All orthopedic cases requiring consultation services are channeled through our own orthopedic physician, who is also Athletic Physician. Once each month, cases with uncertain diagnosis are presented to an expert in orthopedic surgery. At times this service has been heavy, owing to the increased number of injured veterans who are now under the care of this department. At other times injured athletes account for many of the patients seen by the consultant. The care of athletes remains a dual responsibility of this department and the Department of Physical Education. Confusion occasionally arises over this divided responsibility. At the present time the

whole subject of care of athletes is being reviewed. It is important that both departments make adequate provision so that: (1) all students going out for sports have medical clearance; (2) all students injured while in sports have adequate medical care and are reported to the Department of Clinical Medicine; (3) all practices and games at which injuries can occur have adequate personnel available to care for injuries. It is likely that a larger share of the expense for more adequate protection and care of athletes will have to be borne by the Department of Physical Education and Athletics.

The Mental Hygiene Clinic continues active. This has been a year of reorientation and reorganization for the medical staff. A feature of this reorganization has been the training of a number of new men and women in the department in the fundamentals of mental hygiene so that they might understand and give assistance in a functional illness. In the main, there has been an excellent response on the part of the staff. This program of instruction must be continued in order to mold an integrated group, working as a team with one single objective; namely, the better care of the student. Actual number of total cases carried was 175. Of these, 105 were men and 70 were women. Thirty-four of these were old cases, in that they were patients who had been seen in former years. Seventy-nine of the total number were veterans. Seventeen out of the 175 were handled in a single interview, which did not require the opening of a case history. During the year, 11 of this number required leaves of absence for mental hygiene reasons. Seven of these were men and 4 were women. Nine were undergraduates and 2 were graduate students. There were 6 individuals who required hospitalization in a mental hospital. Two of these cases were veterans who were eventually hospitalized in a veterans hospital. It was possible in all cases to make arrangements for excellent care in mental hospitals outside of Ithaca. About a year ago a plan was formulated which brought the Counselors of Students in closer touch with the psychiatrist's office. This plan, which has been in operation this past academic year, was made possible by a joint appointment in this department and the Counselors' office of a qualified person to carry on the contact work. She has frequently interviewed patients and prepared partial histories in order to save the psychiatrist's time. She has visited patients in their rooms and in the Infirmary and, under the psychiatrist's direction, has done general counseling work in both offices. In order that this work may be more efficiently handled, it will be necessary for the psychiatrist to spend considerable time this coming year not only with the counselors of students but with their staffs as well. A closer working relationship with those in charge of aptitude and other testing on campus will be encouraged. To this end the psychiatrist has scheduled for the coming year regular, semimonthly conferences with all persons doing general counseling. At present the department offers the only assistance in this area to physicians who wish consultation on emergency mental problems. This is another example of the department's aid to Ithaca medicine.

The Dental Clinic continues to be operated by a part-time dentist. While this clinic was initiated as a war expedient, our experience this year demonstrates that it has a definite peacetime value. The large number of acute mouth conditions treated promptly in this clinic continues to account for the decrease in hospital admissions for mouth infections. In order to maintain high standards for emergency dentistry, elective conditions continue to be treated by private dentists. The dental consultant is, however, available at all times to give advice regarding the urgency of elective conditions.

The Skin Clinic, established before the war and discontinued during the war, was reestablished this year. The acquisition of the services of a qualified dermatologist made this possible. Many patients with severe skin pathology were treated in this clinic; some of these required hospitalization. By supplementing the work of the general clinic, the skin clinic is of great value to the medical staff.

The postponement of the opening of the University this year eliminated orientation week, the period when this department customarily conducts physical examinations. Inasmuch as veterans had recently received a discharge examination, non-veterans were given priority for the examinations made. Health questionnaires were filed by all new students. Veterans declaring a known defect were examined in October as were 978 non-veteran new students. In February, 126 new non-veteran students were examined. Of this total group, 676 were men and 428 were women.

Calculating the above from a percentage point of view, 40 per cent of new students were examined and 60 per cent were not. All new students received chest x-rays. At the present time, 97 per cent of the registered student body at Cornell have chest x-rays on file; 3 per cent do not. The latter group consists of: (1) non-veterans who entered before x-ray was compulsory, but who were Mantoux negative; (2) veterans who registered before an x-ray was compulsory and who returned before the re-x-ray rule became effective; and (3) students who were previously registered in V-12 only. Ninety-seven and one-half per cent of the registered student body has received tetanus toxoid. Of the 2.5 per cent who have not received it, 1.7 per cent registered before the administration of tetanus toxoid became compulsory; .3 per cent were waived for medical or religious reasons; .5 per cent have not fulfilled their health requirement and cannot register in the University this fall until the requirement is met.

Infirmary

General administration of the Infirmary was the same as in previous years with the exception that, under the attending system, patients were admitted on the service of the attending physician and not in the name of the clinical director. While the Infirmary was geared for a larger number of admissions this year, experience here was the same as in other universities; namely, fewer hospital admissions per thousand enrollment. At the Infirmary the number of patient days was lower than in former years. The Infirmary continues to enjoy the approval of the American College of Surgeons. There has been no change in the operational policy. The staff has continued to function smoothly with no disciplinary actions necessary. Nursing problems occupied considerable time late in 1946 when the New York State Nurses Association became the bargaining agency for the professional nurses in this state. The Infirmary was designated a general hospital by the Association, thereby including the department in hospital nursing salary scales. The nursing budget of the Infirmary doubled that of any previous year. It is likely that this will be permanent. For a long time nurses have rebelled against the quasi sacrificial life which the public has accepted as consistent with a nursing career. During the war it became obvious that nurses were discarding the Florence Nightengale halo and were demanding that they be permitted to live as free individuals with the same privileges given to other hospital employees. Last year it was reported that the nursing staff elected to go on a cash basis, giving up maintenance as part of their salary. Regardless of the readjustments, the nursing staff has given adequate nursing care to all patients.

The x-ray department of the Infirmary was active during the year. In 1946 a contract was made with the Broome County Tuberculosis and Health Association for routine chest x-rays to be taken at the time of registration on a photo-Roentgen unit. This policy was put in operation this past year. Thirty-five hundred chest x-rays were taken during the registration period. Later, standard size x-rays were repeated on those students with suspected pathology. The trail has been blazed for this type of public health. It is hoped that before long the department can either own a photo-Roentgen unit alone or in conjunction with another agency so that every student, employee, and faculty member can be x-rayed annually. The activity of the Orthopedic Clinic necessarily increased the number of x-rays taken for diagnosis.

The research program of the resident physicians increased the number of diagnostic procedures in the Infirmary laboratory. Research programs conducted in conjunction with the School of Nutrition also brought new work to the laboratory. Methods were adapted to bring them in harmony with those used by the attending staff. With each new discovery in medical science, usually there is a laboratory check required. This was true of sulfonamide therapy which doubled laboratory examinations on ill patients. We are now confronted with a multitude of new checks resulting from the use of new chemical agents in the treatment of rare conditions.

The Infirmary Library is now worthy of the label. During the year provision was made for the purchase of books and periodicals used exclusively for academic pursuits by the University Library. The old allotment for the Department of Hygiene and Preventive Medicine was restored in the name of the Department of Clinical and Preventive Medicine. This will release funds for meeting the increased cost of

periodicals, books, and binding. There are now in the library several hundred volumes of bound periodicals and reference books vital to the educational program of the resident physicians and to the proper operating of the Infirmary and Clinic.

STATISTICS FOR THE YEAR

Medical Clinic out-patient visits.....	41,915
Infirmary out-patient visits.....	1,246
Infirmary	43,161
Medical Patients Discharged.....	1,555
Communicable Disease.....	83
Other than communicable disease.....	1,472
Number of consultations.....	44
Deaths.....	0
Surgical Patients Discharged.....	335
Major Operations.....	39
Minor Operations.....	211
Fractures requiring reduction and casts.....	38
Consultations.....	110
Deaths.....	0
Laboratory	
Clinical pathology examinations made.....	15,074
X-ray	
Examinations of the chest (4x5).....	3,520
Examinations of the chest (14x17).....	2,678
Examination other than chest.....	1,581
Number of dental patient visits.....	2,064
Number of physiotherapy treatments given.....	4,860

PUBLIC HEALTH

The water supply of the University has been satisfactory throughout the year. A high standard of sanitation in the dining halls operated by the University has been maintained in spite of the increased use of cafeterias. In November, 1946, the Health Officer of the University, Dr. Robert Broad, resigned to take a position elsewhere. There has been no acting Health Officer during the year. Late in 1946, the Tompkins County Board of Supervisors voted to request the State Department of Health to establish a County Public Health District for Tompkins County. This request was granted, and in April of 1947 the Board of Supervisors appointed the Board of Health. This change is discussed because it has a relation to the academic program of the department, mentioned previously. A Health Commissioner has been appointed and, effective July 1, 1947, the District will be responsible for the public health needs of this community. The Health Commissioner will be recommended for appointment as Health Officer of the University, succeeding Doctor Broad. This appointment will tie in the University's public health problems with those of the county. In addition, a stronger educational relationship between this department, the School of Nutrition, and the County Health Department is assured.

RESEARCH

During the year it became apparent that if this department was to fulfill its commitments to assist in the clinical research program of the School of Nutrition, provision must be made to obtain research material. Because delay in plans for a health center seemed certain, and because Cornell did not need to await that decision before mustering its own research resources, it was recommended that ten research beds at the Infirmary be created for research in the Department of Clinical and Preventive Medicine, either alone or in conjunction with the School of Nutrition. This recommendation was adopted by the Trustees. Research gained impetus immediately. Each resident physician is now offered the optional opportunity for conducting research. This year one physician carried on an extensive investigation

of liver function in mononucleosis. Previous commitments with the Teagle Foundation on the relation of cancer to developmental changes in the adolescent breast continued. Work in estrogenic deficiencies was started, and plans have been made for continuation and expansion of this work.

SUMMARY

In conclusion it may be said that progress in realizing the original objectives of this department has been made this year. The department as a whole has functioned efficiently. Clinical responsibilities, which account for a major portion of the activities of the department, have been discharged with credit to the medical staff. To maintain high standards of practice in the future, the department must continue to develop. An interested and able staff can be held only by a challenging program which must include, besides clinical and library facilities, opportunity for research and education. Whether Cornell continues to fulfill this requirement alone or in conjunction with other medical groups of the community is speculative. During the coming year, medical community developments may point the course which Cornell should follow.

NORMAN S. MOORE, Chairman,
Department of Clinical and Preventive Medicine.

APPENDIX XXIV

REPORT OF THE DIRECTOR OF ADMISSIONS

To the President of the University:

SIR: I have the honor to present the report of the Director of Admissions for the year 1946-1947. In order to provide continuity to the series of reports, certain information is included which properly belongs to the fiscal year 1945-1946, as it is closely associated with the work of the year just past. This report then covers the sixteen months from March 1, 1946 to July 1, 1947. Only two actual admissions periods are included—October 1946 and February 1947. The March 6, 1946, term was, of course, included statistically with the other two terms of the year 1945-1946, reported by Dr. Bradford a year ago.

On March 1, 1946 the Offices of the Registrar and of the Director of Admissions were separated, the latter office being moved at once to the basement of McGraw Hall. The separation of these two offices had become an absolute necessity, both from an administrative and physical standpoint, because of a tremendous and rapid increase in the volume of work.

Some little idea as to the job which faced the new Office of Admissions can be obtained by noting the working schedule for the spring months of 1946. The staff was immediately increased from four full-time employees and several hourly-rate employees to sixteen full-time persons. Among the new appointees were several young college graduate veteran wives with secretarial experience, capable of handling independently much of the huge quantity of correspondence. In addition to this staff, and in order to eliminate the back-log of accumulated correspondence, a night staff of from three to ten persons worked three hours a night, four nights a week, until the end of May.

By such heroic measures was it possible to bring some order from the avalanche of applications, letters, and visitors which descended on Cornell as on most other institutions in the spring of 1946. The flood of returning veterans was at its crest and panic had hit among the secondary schools. It had dawned suddenly on all that what had previously been a rather leisurely, pleasant series of exchanges between secondary school graduate and the college of his choice, leading usually to the admission of the applicant, had become over night a very difficult, often frantic and unsuccessful, process. Applications were broadcast, references multiplied, the influence of friends, relatives, alumni, public and University officials was exerted, and extensive communication by letter, telegram, telephone, and visit further

hampered already over-loaded offices. None of this could increase Cornell's ability to take more students. Seven applicants had to be denied for every one accepted at Cornell in the fall of 1946.

The period covered by this report has been marked by many changes in the admissions work. The very pressures which have made the past months difficult have been a blessing in one respect. We have been forced to do many things better than ever before. More effective office procedures have been put in operation, almost all forms have been redesigned, the filing system has been simplified. A Committee on Admissions Policy has focused attention on problems common to the admissions work of all divisions of the University with resultant benefit in terms of over-all policy. A serious attempt has been made to answer all correspondence promptly, courteously, and accurately. Cornell alumni, secondary school principals, our own faculty, and other interested persons have been periodically informed as to the admissions situation in an attempt to clear the many misunderstandings resulting from such a large proportion of rejected applications.

Of particular note is the revival, on a small scale, of our contacts with secondary schools and of the work of our alumni secondary school committees. It is heartening to the Director of Admissions to know that he has in the field such a loyal and informed group of Cornellians, eager to assist in bringing about and maintaining cordial relations with schools and their students. The Office of Admissions is preparing to take a more active part in the guidance of this work and has recently employed Mr. Robert W. Storandt, '40, as Assistant Director of Admissions with some specific responsibilities in this field.

Statistical information concerning the volume of applications and admissions is contained in the tables which follow. Table III shows clearly the changes in the admissions picture over the last few years and the great increase in demand this past year at a time when our capacity to absorb new students has been limited. I expect there will be some easing of the pressures on the Admissions Office from now on. Part of this relief will be due to our own ability to take larger numbers of entering students as we lose our large veteran enrollment. Part again will come from the decline in numbers of veteran applicants and, perhaps most important, as these factors operate, there will be less tendency on the part of applicants to multiply applications.

HERBERT H. WILLIAMS,
Director of Admissions.

TABLE I—A

APPLICATIONS FOR ADMISSION FROM SECONDARY SCHOOLS

	Fall 1946		Spring 1947		Total	
	Applied	Admitted	Applied	Admitted	Applied	Admitted
Agriculture						
Men.....	1171	274	134	47	1305	321
Women.....	110	31	8	5	118	36
Architecture						
Men.....	229	18	2	.....	231	18
Women.....	30	1	.....	.....	30	1
Arts and Sciences						
Men.....	2164	305	198	20	2362	325
Women.....	1394	114	41	15	1435	129
Engineering						
Men.....	2642	368	187	7	2829	375
Women.....	33	6	.....	.....	33	6
Home Economics						
Women.....	439	158	(No admissions)		439	158
Hotel Administration						
Men.....	465	42	73	6	538	48
Women.....	21	2	.....	.....	21	2
Total						
Men.....	6671	1007	594	80	7265	1087
Women.....	2027	312	49	20	2076	332
GRAND TOTAL.....	8698	1319	643	100	9341*	1419*

*These do not include 260 applicants for admission to the two-year special courses in the College of Agriculture of whom 123 were admitted.

PRESIDENT'S REPORT

TABLE I—B

APPLICATIONS FOR ADMISSION FROM OTHER HIGHER INSTITUTIONS

	Fall 1946		Spring 1947		Total	
	Applied	Admitted	Applied	Admitted	Applied	Admitted
Agriculture						
Men.....	307	57	46	14	353	71
Women.....	28	1	5	4	33	5
Architecture						
Men.....	125	7	6	1	131	8
Women.....	12	1	1	.....	13	1
Arts and Sciences						
Men.....	1095	63	171	25	1266	88
Women.....	364	17	29	7	393	24
Engineering						
Men.....	1357	40	183	49	1540	89
Women.....	4	.....	2	.....	6	.....
Home Economics						
Women.....	130	28	3	.....	133	28
Hotel Administration						
Men.....	320	40	83	7	403	47
Women.....	10	1	1	1	11	2
Veterinary						
Men.....	419	20	(No admissions)		419	20
Women.....	18	1	.....	.....	18	1
Total						
Men.....	3623	227	489	96	4112	323
Women.....	566	49	41	12	607	61
GRAND TOTAL.....	4189	276	530	108	4719*	384*

*These do not include 63 applicants for admission to the two-year special courses in the College of Agriculture of whom 13 were admitted.

TABLE II

SUMMARY FOR FALL TERM 1946 AND SPRING TERM 1947

	Fall 1946		Spring 1947		Total	
	Applied	Admitted	Applied	Admitted	Applied	Admitted
Men.....	10,294	1234	1083	176	11,377	1410
Women.....	2,593	361	90	32	2,683	393
Total.....	12,887	1595	1173	208	14,060	1803

TABLE III

APPLICATIONS AND ADMISSION IN LAST SEVEN YEARS

	From Secondary Schools		From Higher Institutions	
	Applied	Admitted	Applied	Admitted
1946-1947.....	9424	1419-15%	4720	384-8%
1945-1946.....	5282	1512-29%	2296	612-27%
1944-1945.....	3329	1304-39%	857	265-31%
1943-1944.....	3312	1226-37%	704	222-32%
1942-1943.....	3402	1562-46%	607	219-36%
1941-1942.....	3812	1672-44%	977	228-23%
1940-1941.....	3788	1603-42%	1085	201-19%

APPENDIX XXV

REPORT OF THE COUNSELORS OF STUDENTS

To the President of the University:

SIR: We have the honor to present the report of the Counselors of Students, for the year 1946-1947.

In accord with administrative policy the offices of Counselors of Students have developed and maintained closer cooperation than ever before. Staff meetings to discuss mutual problems, and frequent informal discussions, have led to a broader, more comprehensive program, which has had for its purpose, better integration of each student and education of the whole individual. These meetings and discussions have considered the broad organizational aspects as well as the details of personal and group counseling, scholarship assistance, social planning, student records, part-time positions, vocational and educational information, and student government.

The duties of this office are expanding to meet the various counseling needs of students. A close tie-up has been effected between our office and the Bureau of Educational Research and Service, so that students with questions involving interests, aptitudes, abilities, or vocational-educational choices, may obtain the benefit of the testing service as it applies in counseling. Subsequent counseling and interpretation of test scores have been completed in this office. Since the Bureau was activated in January 1947, approximately 52 students have been referred for testing. One hundred and fifty students requested Kuder Preference Records as the first step in finding a field of occupational interest. These tests were given in the Counselors' Offices and the results were interpreted and discussed with each student. As the activities of the Veterans Administration Guidance Center are curtailed, it is expected that more guidance functions of a vocational and educational nature will be taken over by this office. A vocational library-conference room fills a long-felt need, not only in our vocational-educational counseling program, but also for classes, discussion groups, in-service training, and as a meeting place for various committees.

Our new quarters are adequate and accessible to students, and should prove to be of great value in carrying out our program.

COUNSELING INTERVIEWS

During the past year the Counselors of Students and their staff members have had over 6,500 interviews of varied nature and degree. A summary of them follows:
With Students:

Adjustments in areas of academic interests, social activities, study habits, and human relations	2100
Vocational Interest and Aptitude Testing and Counseling	352
Fraternity Problems arising with Members, Advisers, and Alumni	204
Scholarships and Student Aid	420
Physical Training Excuses	56
Prospective Student Proctors	36
Prospective Student Deans	40
Special Permissions for Women's Off-Campus Residence	50
Leaves of Absence Excuses (Where student represents Cornell University at intercollegiate affairs)	45
Prospective Entering Students	80
Service to other University Departments and Committees (Personal Data, Counseling by Referral, etc.):	
Proctor Manning (student problems)	54
Director of Admissions of University and various Schools and Colleges	191
Residential Halls Office	210
Advisers and Instructors (student's scholastic difficulties)	105
C.U.R.W. (Staff)	69

Willard Straight (director, assistants, and secretaries).....	70
President of Student Council, Committee on Student Activities, W.S.G.A. Officers, and other Student Group and Committee Representatives ...	474
Parents.....	54
Interviews with Medical Implications.....	352
Foreign Student Counseling.....	1432

Close liaison has been maintained with the Veterans Guidance Center on the campus. Referrals of veterans have been made to the Guidance Center for advisement and counseling, and cases were followed by this office to resolve the student's difficulties. Approximately 43 of these cases were referred last year.

A more extensive records branch for men has been inaugurated during the past year. Its purpose has been to offer assistance in counseling the men students. It is planned to make these records available to the Placement Service upon the student's graduation, so that there may be a clearer picture of each registrant, relative to his college background and activities.

This office is endeavoring to see each new student and those who leave the University. The services of the office are explained to new students and a check is made of their living conditions, proposed study habits, and any adjustment problems which may become apparent. We assist the student who is leaving to discover the reason for his difficulties. It may be a reading deficiency, a deficit in scholastic aptitude, or an interest unrelated to the program he pursued at Cornell. This program has made it possible for withdrawing students to leave with a definite well-advised program for the future, and a better feeling toward Cornell.

FACULTY COMMITTEES IN WHICH THE COUNSELORS OF STUDENTS PARTICIPATE

A. Faculty Committee on Student Activities.

This office submits the agenda of business and maintains a complete file of each organization with its constitution, membership, officers, adviser, and clippings regarding its activities or members. These records have been used by men and women students on an average of from 20 to 30 times a week. Letters are written to each organization apprising them of final recognition as voted by the Committee.

B. Faculty Committee on Undergraduate Scholarships.

Complete records, relative to the conditions and granting of each of these scholarships, are kept in this office. An agenda of business is prepared for each monthly meeting of the Committee, and minutes of the meetings are prepared and circulated to members. The scholarship and need qualifications of approximately 150 students were investigated and recommendations made to the Committee for their action in selecting the students to qualify each year for the 35 new openings in scholarships administered by this Committee.

C. The Committee on Student Aid.

It has been the responsibility of this office to maintain records, interview applicants, determine scholarship and need of applicants, present an agenda to the Committee and carry on necessary correspondence.

D. Members of the Cornell University Medical Staff.

Case studies and recommendations have been prepared to assist the Medical Service.

E. Members of the University Committee on the Scheduling of Public Events.

F. Advisory Board of Cornell University-New York Hospital School of Nursing.

PARTICIPATION IN CAMPUS ORGANIZATIONS

A. Members of the C.U.R.W. Board of Control.

Periodic meetings have been held to discuss matters of policy relative to organizational plans, conferences, and freshman camp.

B. Members of the Advisory Board of Campus Chest Drive.

Responsibility for seeing that appropriate student chairman and committees are appointed by the Student Council, and that the "drive" is properly executed. This coming year it will be carried on simultaneously with the Ithaca Community Chest Drive.

- C. Adviser to Independent Council.
- D. Adviser to Interfraternity Council.
- E. Adviser to League of Women Voters.
- F. Adviser to Mortar Board.
- G. Adviser to Pan-Hellenic Council.
- H. Adviser to Student Council.
- I. Adviser to Executive Committee of W.S.G.A.
- J. Members of the Board of Governors of Willard Straight Hall.

Professional and Community Obligations Accepted by the Counselors of Students and Staff:

The Counselors of Students accepted invitations to attend and participate in the following meetings:

National Association of Deans of Women, New York State Association of Deans of Women, Executive Committee of the Citizens Council of New York State, National Association of Deans of Men, Career Conference, Ohio State University, The Counselors of Students have talked with alumni groups, secondary school students, etc., American Council of Education (as consultant to colleges in guidance and personnel work).

A. Fraternity and Sorority Speeches.

The purpose of these talks has been to develop a better understanding of the place of fraternities and sororities in Cornell undergraduate life.

B. Other Community Contacts.

The Counselors have participated in programs of business and professional women's groups, high school groups, Hi-Y groups, church groups, Kiwanis, Rotary and other civic groups, and New York State Nurses' Association.

The Counselors of Students Sponsored the Following Conferences during the Past Year:

A. College Fraternities' Secretaries Association.

This conference was held at Cornell on December 2, 1946. More than thirty fraternity secretaries attended the one-day meeting, which included several speakers, a luncheon, and a tour of the fraternity houses.

B. Vocational Information Conferences.

This office contributed to coordinating the vocational interests of the Colleges of Arts and Sciences, Engineering, Agriculture, and Home Economics. An all-day meeting of the Women in Radio was held. Approximately 250 students attended the panel discussion which was given by members of the National Association of Women Broadcasters. The purpose of this was to apprise students of the opportunities in the field of broadcasting and technical training necessary to enter into this field.

In connection with a committee of W.S.G.A. and in cooperation with college officers, the Counselors' Office helped arrange for four visiting lecturers who reported on the following fields of interest: merchandising, public health, engineering, and education. Subsequent student opinion would indicate that these meetings were very favorably received by the students. Students were able to meet and talk with specialists in these fields and determine the amount and kind of training, job opportunities, chances of advancement, and other important details of making vocational choices.

Foreign Students:

Foreign students are enrolled in Cornell from 38 countries and colonies: first term, 245; second term, 278; undergraduate, 118; graduate, 160; men, 232; women, 46. Students who were enrolled the previous year, as well as the current year, 171; new students, 107.

The advising of foreign students is of major concern to the Office of the Counselors of Students. The chief function of the service to foreign students is to those students

who come as strangers to a strange country with different customs and culture. Individually they need much more help and require much more time than students from our own land.

This year, besides the usual individual conferences on subjects ranging from housing to worthwhile types of curricula, the Counselors attended meetings of the Foreign Students Council, appointed a special social adviser, and entertained the Presidents of the different ethnic groups.

Close cooperation has been developed between this office and all other departments and offices of the campus, so that foreign student adjustment may be resolved quickly and maximum benefits from study at Cornell may be derived.

Social Advising:

Social counseling has extended beyond the registration of events, selection of chaperons, interpretation of rules, to actual guidance in how to plan and execute both formal and informal parties given by women students. There was a total of some 2,600 informational calls and interviews. This work has greatly helped Cornell women to do constructive planning.

Social committees under W.S.G.A. made up of representatives from each of the women's living units were active for the first time. A tentative social calendar was compiled and made available to the students and members of the Willard Straight staff, C.U.R.W., Athletic Department, Department of Music, Secretary of the University, and the Counselors of Students. This calendar is to be made available to the officers of organizations in order to help them plan their activities throughout the year.

Publications:

The Counselors of Students supervised the publication and compilation of the data in connection with the following:

A. Student Desk Book for Entering Freshmen.

This activity has involved considerable organizational work with attendant discussions, conferences, and committee meetings on policy. The Desk Book again this year becomes a student undertaking. The philosophy and purpose of the Desk Book are felt to be very important. It meets a real need of freshmen students both from a practical and guidance standpoint.

B. A manual for the use of the Head Residents of the Women's Dormitories.

C. Monthly Head Resident Bulletin.

These explain University policy and procedure and are used to clarify issues for women students' social activities.

D. A Weekly Social Calendar.

This lists all approved social affairs carried on by campus organizations. The activities load for one week may exceed one hundred affairs.

E. Freshmen Orientation Booklet.

This office chairs the University Faculty Committee made up of representatives from all college faculties, the Medical Staff, University Testing Bureau, C.U.R.W., Veteran's Education, Residential Halls, and Willard Straight Hall. Liaison has been maintained between the Faculty Committee and the Student Committee, both of whom are primarily concerned with coordinating the various activities of the schools and departments as they apply to the orientation program.

F. Budget Surveys.

This office has supervised the collection and publication of a survey on student college expense budgets. The work of this survey is in the nature of a continuous compilation and is based upon direct contact and questionnaire. Its purpose is to develop current information of value to students and prospective students in properly developing workable financial budgets.

Prior to registration in the fall, this office corresponded with freshmen who had financial problems, advising on the budget and expenses and channeling those who needed to earn a portion of their expenses to desirable employment on the basis of information obtained concerning health, academic records, and anticipated schedules. Students who were found to need positions supplying both room and board were placed through this office in homes in Ithaca or were appointed to positions to night desks in the dormitories.

HOUSING

Undergraduate women now enrolled are adequately housed with the completion of Clara Dickson. Eight small units were turned to other purposes. Five small units, the traditional Circle Cottages, remain, and they are very valuable because of their size and location.

Distribution by Houses	First Term			Second Term		
	Under-Graduates	Graduates	Specials	Under-Graduates	Graduates	Specials
Balch (4).....	348	2	2	342	1	2
Risley.....	209	1	..	204	1	..
Cascadilla.....	153	1	1	120	1	2
Clara Dickson (2).....	243	2	2	413	2	3
Comstock (2).....	84	..	1	72	..	1
1 The Circle.....	19	1	..	20	1	..
2 The Circle.....	13	1	..	11	1	..
3 The Circle.....	16	1	..	16	1	..
4 The Circle.....	18	1	..	18	1	..
5 The Circle.....	17	1	..	16	1	..
**301 Wyckoff Ave.....	17	..	..	..	7	1
*303-5 Wyckoff Ave.....	21	1	..	..	..	..
**302 Wait Avenue.....	17	..	..	1	10	1
*308 Wait Avenue.....	16	..	1	..	..	..
*5 East Avenue.....	20	1	..	..	..	..
*9 East Avenue.....	15	1	..	..	..	..
*15 East Avenue.....	20	..	..	..	..	..
*3 Grove Place.....	14	1	..	..	..	..
*5 Grove Place.....	17	..	..	..	..	..
**613 Thurston Ave.....	11	..	..	2	4	..
Sororities.....	290	1	1	286	..	..
At Home.....	78	3	4	65	4	4
Room and Board.....	14	1	7	9	1	5
With Relatives.....	5	2	1	4	3	..
With Husband.....	62	27	22	54	36	15
Special Permission.....	30	..	3	17	2	4
Commuting.....	8	7	7	8	7	3
Approved Apartments.....	1	39	3	2	34	2
Approved Rooms.....	13	95	5	14	80	5
M. V. R. Apartments.....	5	..	..	5	1	..
Non-Resident.....	5	4	..	5	..	..
Practice Teaching.....	4	..	..	..	..	..
Totals.....	1803	194	60	1704	199	48
Total number of women		2057			1951	

*Closed in the spring term.
 **Graduate residences.

PRESIDENT'S REPORT

ENROLLMENT BY COLLEGES

College	First Term		Second Term	
	Women	Men	Women	Men
Agriculture.....	202	1,264	193	1,263
Architecture.....	33	166	31	154
Arts and Sciences.....	872	1,459	817	1,460
Business and Public Administration.....	1	35	1	29
Engineering.....	32	2,362	30	2,283
Home Economics.....	622	—	588	—
Hotel Administration.....	31	347	27	334
Industrial and Labor Relations.....	42	205	40	217
Law School.....	19	301	17	269
Nutrition.....		6		7
Veterinary Medicine.....	9	119	8	112
Graduate School.....	194	834	199	851
Total.....	2,057	7,098	1,951	6,979

PART-TIME EMPLOYMENT AND STUDENT AID

Supervision of Term-Time and Summer Employment was transferred from the University Placement Service to the Office of Counselors of Students on July 1, 1946. This change was timely in that it was made sufficiently in advance to permit good preparation for increased activities brought about by the larger student body attending the University this year. During the summer a number of students remained in Ithaca in order to keep their rooms or apartments. We were fortunate to have large scale construction in progress and many of the students found work as carpenters, painters, laborers, etc. As the student body was more advanced in age than normally and as the individuals were men of several years' experience, an attempt was made to find employment which could make use of their training.

The following tables and comments give a more detailed picture of our work.

TERM-TIME EMPLOYMENT

1. Prospective Students—97 wrote for employment information. They were informed as to work opportunities and given advice regarding their financial problems.
2. Students were registered, interviewed, and directed to jobs.
3. Prospective employers were consulted by letter, telephone, and personal interviews.

TABLE I

TERM-TIME WORK STATISTICS

Registration for term-time work.....	579
Calls for part-time workers:	
From University departments.....	136
From private homes.....	313
From business organizations.....	93
From fraternities and sororities.....	120
Total.....	662
Student earnings through above calls:	
59 students earned meals, value.....	\$ 8,201.19
17 students earned months room rent, value.....	1,746.60
8 students earned room and board, value.....	2,386.40
455 students earned through cash jobs*.....	21,899.13
Total.....	\$34,233.32

*Includes cash earnings at Home Economics, Baker, and Willard Straight Hall Cafeterias, and also Sage Cafeteria.

TABLE II

SUMMARY OF ALL EARNINGS BY UNDERGRADUATE STUDENTS

<i>Source</i>	<i>No. of Students</i>	<i>Amount</i>
University Residential & Dining Halls	61	\$16,777.90
Balch-North		
Balch-South		
Risley		
Clara Dickson		
*Baker Cafeteria	94	11,502.68
*Sage Cafeteria	44	3,851.74
*Home Economics Cafeteria	62	9,695.00
*Willard Straight Dining Halls	152	17,959.55
Willard Straight Hall (Game Room, Desk, Library, Am- plifier, & Check Room)	56	15,237.45
Fraternity and Sorority Meal Jobs	512	116,907.82
Cash Jobs (Misc.)	456	23,845.68
Room Jobs	41	4,582.10
Proctors	20	5,000.00
Room and Board Jobs	12	4,636.40
Local Restaurants	16	2,850.17
Student Agencies	53	16,433.00
Total	1,579	249,279.49

*In addition, students who have worked a minimum of 18 hours a week were allowed 25% discount on food in their place of employment.

SUMMARY OF LOANS

	<i>No. of Loans</i>	<i>No. of Vets.</i>	<i>Amount</i>
Graduate Loan Revolving Fund	9	3	1,592.50
Women's Students Loan Fund	8		1,341.25
Chemical Engineering Loan Fund	6	5	910.00
G. W. Guiteau Loan Fund	92	64	9,163.50
Non-Interest Bearing Loans to Veterans	220	220	17,797.42
Total	335	292	\$30,804.67

In connection with the administration of the above loan funds and applications submitted there-to, 357 interviews were held. Each application was carefully checked, references were followed, reports submitted and students notified of committee action. The Treasurer's office was notified by letter when loans were recommended.

PART-TIME EMPLOYMENT OF WOMEN STUDENTS

Earning Room and Board in Homes and Dormitories	31
Earning Room Only	4
Earning Board in Dormitories, Willard Straight, Home Economics Cafeteria and Sororities	246
Total	281

Women students desiring summer employment registered this year with the Office of Counselors of Students instead of with the University Placement Service. Close cooperation was maintained with several University Personnel offices. Credit should be given particularly to the University Placement Service for the use of their files and assistance in helping us discover good job leads in industry.

MISCELLANEOUS

A. Arbitration.

Ten meetings of the committee to arbitrate room contract disputes, were held during the past year. This committee is composed of the Counselor of Students,

Proctor Manning, and one member of the Student Council. Evidence of both the student or students and the landlord is heard and fair decisions are determined on this basis.

B. Fraternity Inspections.

Inspections of all fraternity houses have been made by this office to insure proper fire precautions. Brief reports of these visits have been submitted to chapter presidents and local advisers.

C. In-Service Training.

A program, developed this year, which will be expanded during the ensuing years, is the staff in-service training program. This year it has taken the form of staff discussions of common problems with special papers on guidance given at various times. It is hoped that next year as a supplement to our present program, we will have specialists in appropriate fields and others conduct bi-weekly in-service programs for our entire staff.

D. Off-Campus Housing for Graduate Women.

Off-campus housing for graduate women has continued to be one of the duties of this office. A great deal of time and personal attention is given to each woman inquiring for rooms. Correspondence regarding rooming accommodations begins in April for the following September.

One hundred and seventy women applied for room information for the fall term, 1946. Seventy-two of these women accepted rooms from the list sent from this office, forty-eight did not come to Cornell, fifty found rooms through friends or other agencies.

In February, three University cottages were opened for graduate women. This resulted in great satisfaction for the students. A graduate consultant was housed in one of the cottages in the advisory capacity for an over-all social program.

Research:

Graduate students in Student Personnel Administration for Educational Institutions have through the direction of the Counselors of Students Office contributed to research in the following areas:

Study of living expenses for fraternity and non-fraternity men.

Study of counseling services through the University.

Study of campus employment conditions.

Study of student government in Cornell and other colleges.

Graduate Housing—from this study has developed a graduate manual.

Study of sorority organization.

Study of scholarship students.

Study of student reaction to the Woodruff "Values Test."

A follow-up study of guidance activities in the Veterans Administration.

A survey of all recreational and social facilities on the Cornell campus and the town of Ithaca.

These studies are available to anyone interested in any of these fields of inquiry.

During the year representatives from all the colleges and different personnel services have met for the purpose of discussing these studies and suggesting ways of making them more useful in coordinating devices.

Changes in Office Staff:

Miss Frances McCormick, Assistant Counselor of Students, is a joint appointment of the Medical Staff and the Counselors' Office, and her work is to coordinate the health services. This work has been a most valuable addition to the work of both offices.

Miss Isabel Peard, Assistant to the Counselor of Students, is responsible for coordinating the student personnel administration laboratory work and assists in teaching the course in student personnel administration. This graduate course contributes to the education of the students in personnel work.

Miss Victoria Frederick is Assistant Counselor of Students in charge of the social programs and vocational information. Her office not only assists in planning, but acts as a clearing house in cooperation with interested agencies and colleges. She does not attempt to duplicate college services but to supplement them, and much referral work is done.

Part-time employment and summer work for undergraduates has been moved from the Placement Service to the Counselors Office. Mr. Culver Smith, who was in charge of this work in the Placement Service, as Assistant Counselor of Students, still continues to direct this program.

Mr. Rollin Perry, Assistant Counselor of Students, was formerly associated with the Cornell Guidance Center, as vocational adviser and is assuming the responsibility in this office in the area of vocational information, scholarships, and is helping to coordinate the work of this office with that of the Bureau of Educational Research.

STUDENT PROBLEMS NEEDING IMMEDIATE UNIVERSITY STUDY

Our work with students, and prospective students, has revealed that two problems need special attention during the coming year: (1) scholarships, and (2) students who are in the wrong field of study.

The best Cornell scholarships do not appear to compete favorably with the best scholarships offered in a few other universities. Our loss appears to be real in this connection.

Added ways of discovering students in the wrong fields of work early in their college careers, and facilities for making proper adjustments should add effectiveness to student counseling work.

EVALUATING THE PROGRAM

We see our office not only as a means of providing a more integrated and comprehensive program for the whole individual but also as an office on the campus through which coordination and cooperation of various University functions may be developed during the past year through conferences—centralization of scholarships, part-time work and student aid, vocational guidance and testing, scheduling of social events, intra-university luncheon discussion groups, and regular conferences with school and college personnel-guidance workers. There have been requests from students and department heads for more of the same kind of cooperative undertakings.

Our office this year has really functioned as one office with programs operating for the student body as a whole rather than individual programs for men and women. There is a pressing need for additional assistance in the filing and secretarial departments in order to implement the type of service which is considered necessary in Cornell University.

It is still true, as it was last year, that although some research has been done for the benefit of the whole campus, much more is needed. Transfers from within the University might well employ the services of this office. This would make possible later research of a revealing nature in developing policy. The ground work has been laid for a constructive counseling service and with the continued cooperation of all concerned, it is felt that the next two or three years will see such a service developed here at Cornell. The separate colleges and the other personnel services and agencies on the campus have been most helpful in contributing necessary information to the work of this office and a free exchange of views and opinions has served mutually to strengthen and to extend the services of the colleges as well as that of the Counselors of Students Office.

LUCILE ALLEN,
FRANK C. BALDWIN,
Counselors of Students.

APPENDIX XXVI

REPORT OF THE DIRECTOR OF THE UNIVERSITY
PLACEMENT SERVICE

To the President of the University:

SIR: I have the honor to present the report of the University Placement Service for the year 1946-1947.

GENERAL

With myself as Director and Mrs. Kate Hopkins Von Berg as Assistant Director, the Placement Service completed the first year since its inception in 1933 without the guidance of Mr. Herbert H. Williams. If we have been successful, credit must go to the efficient organization we inherited and to the continuing help we receive from Mr. Williams. No basic change has been made in the methods and procedures of operating the office, nor are any contemplated.

While the need of Cornellians for placement assistance continues, national employment is at an all-time high and the greatest demand for our services has come from employers, many of them Cornellians. Business, robbed of replacements for its managerial positions by a depression and war, flooded us with requests for Cornellians who could fill their managerial and technical needs. One hundred and ninety employers visited the campus and more wrote seeking the services of seniors and alumni. In fields like mechanical engineering, accounting, chemistry, and merchandising there were more employers and many more job opportunities than individuals available. It is regrettable, but we hope understood, that we could not be of service to many employers because there were not enough individuals to fill the positions available.

In spite of a busy year, the addition of a male assistant to the Director, recommended by Mr. Williams in his report last year, was not made because the number of students seeking employment assistance during the year was not too large for the present staff to handle. This assistant will be needed if the number of students seeking employment increases.

ALUMNI PLACEMENT

Table 1, below, indicates a slight increase in alumni placement. The figures given are not complete because alumni are slow in reporting on the job leads given. At the beginning of the year many of our registrants were young returning veterans who were comparatively easy to help whereas by the end of the year we received many applications from individuals in their fifties and sixties who have been discharged from government service and other organizations that depended on government spending for existence. These latter individuals are difficult to place because business is looking for younger men.

TABLE 1
ALUMNI PLACEMENT STATISTICS

	1947	1946	1945
<i>Ithaca Office</i>			
Number of Placements	35	31	16
Number of Positions Listed	980	1,177	865
Number of Active Registrants	330	347	178
Number of Inactive Registrants	2,979	2,558	2,350
<i>New York City Office</i>			
Number of Placements	97	65	27
Number of Positions Listed	981	850	650
Number of Active Registrants	195	230	187
Number of Inactive Registrants	3,015	2,658	2,383

SENIOR PLACEMENT

During the past year opportunities for senior men seemed unlimited and salaries were high, averaging from \$235 a month for non-technical men to \$300 a month for chemical engineers. Table II indicates the placement of seniors. The unemployed men can be evenly divided between those who do not want a job at the moment, those who are trying to find jobs in highly competitive fields, and those who suffer from physical or personality defects and who would have difficulty finding a job at any time. There have been numerous opportunities for women in merchandising and secretarial fields, as laboratory and research assistants, dietitians and institutional managers but, remembering their wartime predecessors who obtained more glamorous positions in personnel, management, research, or services overseas, they are not adjusting to the reality that these positions are no longer open to inexperienced women and they are not accepting the positions offered.

TABLE II
EMPLOYMENT OF 1946-1947 GRADUATES

Placements Reported to the Service and the Several Colleges and Departments as of June 30, 1947

College	Positions Reported	Con- tinuing Studies	Total Class	Per cent Unemployed or not Reporting		
				1947	1946	1945
<i>Agriculture</i>						
Men.....	99	43	186	24	41	23
Women.....	13	3	36	56	52	41
<i>Architecture</i>	12	1	20	35	42	27
<i>Arts and Sciences</i>						
Men.....	59	147	293	30	68	42
Women.....	42	29	212	66	70	42
<i>Engineering</i>						
A.E.....	13	0	24	45	0	0
C.E.....	35	7	68	38	0	0
E.E.....	35	6	56	28	0	0
M.E.....	63	9	138	48	0	0
Chem. E.....	27	9	44	18	0	5
<i>Home Economics</i>	64	3	110	30	55	30
<i>Hotel</i>	65	2	77	13	7	55
<i>Industrial and Labor Relations</i> ...	4	3	11	36		
Total.....	531	262	1,275	38	42	26

SUMMER EMPLOYMENT

While this office is interested in summer employment, placement statistics are reported by the Counselor of Students Office. As our contacts are well established with business and industry, we have continued to obtain summer jobs in those fields.

JOHN L. MUNSCHAUER,
Director of the University Placement Service.

APPENDIX XXVII

REPORT OF THE DEAN OF THE SCHOOL OF NURSING

To the President of the University:

SIR: I have the honor to present the report of the School of Nursing for the year 1946-1947.

FACULTY

The year has been marked by a number of changes in department heads. Miss May Kennedy, Professor of Nursing, Associate Director of the School, and Miss Alice Moffatt, Assistant Professor and Head of Private Patients Nursing Service, retired after many years with the School. Miss Carolyne Sproggell, Associate Professor of Psychiatric Nursing and Director of the Nursing Service in Payne Whitney Clinic, also for many years with the School, resigned on June 30 to assume the duties of Director of Nursing at the Westchester Division. New appointments included Miss Veronica Lyons as Assistant Dean and Associate Professor of Nursing, Miss Mary Klein, as Assistant Professor of Medical and Surgical Nursing and Head of the Medical and Surgical Nursing Service and Muriel Carbery, as Assistant Professor and Head of Nursing Service of Private Patients. As of July 1, 1947, Miss Carbery was transferred to a newly-created position as Head of the Nursing Service of the Operating Rooms. Miss Verda Hickcox returned in July to her position as Associate Professor of Obstetrical Nursing and Head of Nursing Service in Woman's Clinic, after two years of leave in the European theater with the American Red Cross.

The appointment of Miss Edna Fritz as instructor in charge of programs for graduate nurses, including in-service educational programs for hospital nursing staff, the establishment of assistant department head positions in two of the departments and of a supervisor's position for the delivery rooms, will strengthen both the school and the hospital nursing service which are so interdependent.

There is urgent need of relieving department heads and supervisors from the pressure of day to day routines of both school and hospital programs so that they may give more attention to study and improvement of actual nursing care in their clinical specialties. This in turn will benefit the school program.

STUDY GRANTS FOR FACULTY AND STAFF

Three members of the faculty and two of the hospital nursing staff were given small grants of \$250 to \$500 each from scholarship funds administered through the Committee on Scholarships. Three of these grants were made from the Irene Sutcliffe Fund established by the Alumnae before the war for study grants to graduates of the school. The other two, from a bequest of \$2,092 from the Arthur Williams estate made available to the school earlier in the year, were granted to two instructors in the Department of Pediatrics, graduates of the Children's Hospital School in Boston. A plan of leave of absence which will provide for the best coordination of study and experience is being worked out for these and other members of the faculty and staff arranging for advanced study at a later date. Our funds at the present time for this purpose are very limited and we must give attention to building them up. The need for increased nursing services here and throughout the country re-emphasizes the responsibility of the faculty for discovering among the graduates on the staff of the hospital those who show unusual potentialities for development and helping them to obtain the experience and study which will best bring out their capabilities. If we can obtain a small but fairly steady fund we have a supreme opportunity here to develop young graduates, which in turn will be a means of assuring the proper supply of students and graduates in the future.

ADMISSIONS

September 1946: No changes in admission policies have been made during the year but in September the requirement of two years of college for *all* entering students went into effect for the first time. A class of 36 was admitted. They came from

22 colleges in 11 states; 72% being from New York, Pennsylvania, and New Jersey. Although we had anticipated a class of the size admitted in prewar years (average 59, 1939-41), it is significant that the number of students admitted in this class was greater than the number admitted with two or more years of college in any year prior to the war. A tremendous drop in admissions was experienced by the nursing schools throughout the country although 97% of the schools require only high school education for admission. The explanation of this drop is to be found therefore in other factors, not in admission requirements.

September 1947: To date 40 students have been accepted for the 1947 class and applications are still under consideration. The students accepted represent 27 colleges in 12 states, 65% of them coming from New York, Pennsylvania, and New Jersey. A class of 50 to 55 is anticipated. Admissions throughout the country are still behind prewar figures but apparently higher than last year.

Five admission scholarships of \$300 each from the Arthur Williams bequest will be granted to incoming students on a competitive basis.

STUDENTS GRADUATED

The largest graduating class in the history of the school was graduated in September (59 students, two of whom completed requirements for graduation before July, 1946). This class, admitted in September 1943, originally contained 85 students and its size reflected the incentives of the war at its height. For a smaller class a second commencement was held in February according to the wartime policy of two classes a year.

ENROLLMENT

	Completion during year	Enrolled as of June 30, 1947
<i>Three-Year Course</i>		
First year students.....		30
Second year students.....		42
Third year students.....	88	90
Total basic 3-year course.....	88	162
<i>Courses for affiliates, seniors of other schools, and graduate nurses</i>		
Affiliating students (4-8 mo.).....	105	36
Senior students of other schools, i.e. cadets, special (2-6 mo.).....	2	2
Post-graduate students		
N.Y.H. courses (4-6 mo.).....	88	36
Field students from Columbia Univ. (4 wks.-5 mo. p.t.).....	20	0
Total.....	215	74
Grand Total.....	303	236

DEGREE STATUS OF STUDENTS COMPLETING THE BASIC 3-YEAR PROGRAM DURING THE YEAR

Class	Completing Course	Degree Students*	Diploma Students
September 1946.....	57	39	18
February 1947.....	30	22	8
September 1947**.....	1	—	1
	88	61	27

*This does not indicate at which Commencement degree was granted.

**Transfer from an earlier class and finished prior to June 30.

COUNSELING OF STUDENTS

While it is the opinion of instructors that in the last few years students as a whole have shown increasing maturity in carrying out assignments and planning their study, there is a general agreement that the provision for counseling students is inadequate. Beginning July 1, the Assistant Dean will devote a considerable portion of her time to direct counseling of students, to assisting other members of the faculty in this respect, and to giving attention to all phases of student progress. In the past this has been carried by the Associate Dean-Associate Director of the hospital nursing service combined with pressing administrative duties of the nursing service of the hospital.

In a school of nursing where all students are in residence at least eleven months a year, where they are daily facing adjustments to very real responsibilities in addition to the usual student adjustments and personal problems, the responsibility of the school for individual guidance is inescapable. The advisability of adding to the faculty a full-time counselor, possibly not a nurse, to carry some aspects of counseling is being considered but decision is being held off until the new provision has proper trial. Four aspects of the program need attention:—

1. The regular guidance as to progress.
2. Assistance with personal problems.
3. Guidance of seniors and young graduates on the staff of the hospital in relation to positions in nursing, including the best possible placement of these young graduates in the many opportunities available to them in The New York Hospital.
4. Counseling of Alumnae of the school to assist them to their maximum usefulness.

With the present increasing and diversified demands for nurses, the third and fourth aspects indicated here become more essential as a means of accomplishing the purpose of the school.

CURRICULUM

First Year: Two more courses were integrated into the unit of instruction which centers around the care of the medical and surgical patient; these two courses were Pharmacology and Diet Therapy. The units which had already been incorporated the previous year were Nursing Arts II, Medical and Surgical lectures, and Medical and Surgical Nursing. On the basis of the experience of the last two years, it seems desirable to change somewhat the present plan of assignment to practice in the Medical and Surgical Department so that during the last half of the first year the student will care for both medical and surgical patients earlier than in the past, thus giving her a better understanding of the theory presented in both areas.

Because all students entering have completed two years of college and all but one or two accepted for September 1947 meet the subject requirements in general psychology which do not go into effect officially until the fall of 1948, the following modifications for the first year program are planned for this fall:—

1. The course in general psychology will be dropped. Special arrangement will be made for any student who has not had the course to register at a nearby college.
2. Orientation unit cut from 30 hours to 17 hours.
3. Reduction in hours of physical education; in the first year from 64 to 55 hours, in the second and third years, reduction from 64 to 32 hours. Recent curtailment in outdoor space for exercise has placed limitations on the program. If future construction for the Center can include plans for play space, we hope some provision for these needs can be made.

That instructors must be constantly alert to trends in medical care and constantly evaluating what the student experience must include is strikingly illustrated by changes in methods of medical practice. Increasing difficulty is experienced in planning an opportunity for each student to carry out certain important procedures soon after laboratory practice due to the trend towards early ambulation for patients. There are many fewer orders for enemata and catheterization, to mention two procedures. On the other hand there has been a marked increase in the amount of practice available to the student in administration of medication and in assisting with intravenous therapy. Getting patients out of bed sooner after operation necessitates preparing students as early as possible in techniques of careful obser-

vation and patient instruction. Such changes in the program of patient care call for constant reorganization of content of courses and give emphasis to necessity of teaching principles on which the student will be able to make adjustments of nursing to parallel the steadily changing methods of treatment.

Third Year: Beginning in the fall of 1947, a period of two months experience with the Visiting Nurse Service of New York has been re-established. The degree students in the class of September 1948 will be the first to receive this and thereafter all students. Throughout the country the greatly increased demands for such affiliation for post-graduate students in universities has almost eliminated the possibility of offering this affiliation to basic students. The affiliation has been made available to this school on the basis that, with the addition of this unit of instruction, the program of the school would meet the requirements for *joint* accreditation by the National Organization for Public Health Nursing and the National League of Nursing Education for preparing students for first level positions in public health nursing. This would give recognition to the type of program which the school has been building during the past 15 years.

Administrative aspects affecting the curriculum: The opportunity to assign students to actual experience, as is the case in nursing schools, brings problems in administering the curriculum which are over and above those met in schools of the conventional pattern of general education. Two administrative practices which have continued to effect the curriculum unfavorably, are the hours per week of clinical assignment and the method used in assignments in the Medical and Surgical Department and Woman's Clinic. A reduction in student hours of pavilion practice from 48 hours including class to 44 hours including class has not been possible as yet but will go into effect with the new term in the fall of 1947, thus allowing more time for the necessary study without which much of the value of both classes and practice is lost. Still further adjustments in schedule are desirable. Assignment of students to the total care of a few patients rather than to single functions (temperatures, treatments, medications, etc.) to be carried out for a larger number of patients will provide for much better learning. This is as important to the patient and to the graduate nurse who is looking for satisfaction in her work as it is for the student who is learning. Therefore for all reasons this change should be made but it necessitates some release of pressure in staffing.

U. S. CADET NURSE CORPS

Funds continue to be available through the USPHS for Cadet students who enrolled before October 1945 and 123 of the 162 students in the school as of June 30 were cadets. In accordance with the obligations incurred through participation in this program the accelerated program must continue for one more school year. This concentration of work which affects the third-year program has not been satisfactory either from the standpoint of educational value or from that of health. Students do not have time to assimilate the material taught, and, by comparison, students have been much more fatigued during this acceleration.

A total of 17 students were accepted for 6 months Senior Cadet experience in Federal hospitals, 16 of these in Veterans' Hospitals, and one in a hospital under the Office of Indian Affairs. Three Senior Cadets are receiving a six months' experience with the Visiting Nurse Service of New York. All of the students have enjoyed these assignments and have had well-directed experiences.

We offered this year, for the first time, an opportunity for Senior Cadets from other schools to have supervised practice periods of 5 to 6 months in one of the following services:—obstetric nursing; pediatric nursing; psychiatric nursing; medical nursing; surgical nursing; or the last two combined. Applications from 13 students, representing 6 schools, have been approved. Two of these students are enrolled as of June 30, 1947, both of them in obstetric nursing.

STUDENT HEALTH SERVICE

A dental service provided at cost on a voluntary basis was established in March. The response in the early months has been slow and to date the service has not paid for itself but it will be a valuable addition to the present health service if it can be continued.

The Committee on Student and Staff Health was requested by the Executive Faculty to study the question of tuberculosis among students. The Committee recommended a 44-hour week and a review of the first-year curriculum to reduce the load. Both of these recommendations will be in effect in the coming fall. Other recommendations not as yet acted upon are: chest X-ray of all patients admitted to the hospital (as is already being done in obstetrics), a review of procedures used in the care of tuberculosis patients and consideration of increased remuneration as a means of attracting additional staff to the tuberculosis service. Beginning in the fall BCG vaccine will be administered to negative reactors in or entering the school.

In anticipation of an influenza outbreak which did not occur, students were given influenza vaccine at the end of 1946.

STATE EXAMINING BOARD

In October, February, or June, 88 students took the State Board examinations. All who took the examinations in October and February passed. No report for the June examination has yet been received.

Two representatives of the State Examining Board spent two days at the school in March. This was the first visit since 1937.

ASSOCIATION OF COLLEGIATE SCHOOLS OF NURSING

The school has been accepted for active membership in the Association of Collegiate Schools of Nursing. This membership will give to the faculty the advantages of taking part with faculty members from other schools of similar type in the discussions of programs and problems. Thirty-one university schools are active members of the association showing a wide geographic distribution. Only 17 of the member schools offer the basic course.

LIBRARY AND TEACHING EQUIPMENT

The school is fortunate in having received from the family of Mary Beard, '03, a small valuable collection of Miss Beard's books and papers, much of which is in the form of pamphlets on nursing developments in other countries.

Lighting has been improved in the periodical room and will be similarly provided for in the main library. Because of proximity of class rooms and offices with constant coming and going, new steps have been taken to give greater assurance of the quiet necessary for study in the library. The library is in need particularly of additional staffing so that the librarian can be available to give more assistance to both students and faculty.

The new 16mm. sound projector and the film-strip projector have made it possible for us to take advantage of the many excellent teaching films available.

SCHOOL COUNCIL

The Council of the School, inactive since the establishment of the University School in 1942, was reconstituted in September according to the By-Laws of the University. One meeting was held in the fall. Approval was given for the Alumnae Scholarship grants. The aim of the school was confirmed as:—To give the student a good grasp of the principles of bedside care, health teaching, and the use of community organizations for the care and prevention of illness; to develop the individual student as a responsible citizen; to qualify her for professional practice in hospital, home, and public health agency.

As we begin this strange postwar period, confirmation of the purpose of the School is timely because the war period, which has covered nearly our complete period as a university school, distorted our view and accustomed us to compromises and a degree of pressure which no educational system can survive if continued. War incentives brought in greatly increased numbers of students. We cannot count on war incentives to continue this, here or throughout the country, and if large numbers of graduate nurses are needed, we must look to new means of attracting students or fall back to the much smaller numbers admitted and graduated before the war. We

must come to grips with the question of student service. The war and the Cadet Corps frankly emphasized the expansion of schools as *the solution for the immediate staffing* problems of hospitals, and throughout the country students made a brilliant war contribution for the direct purpose of *releasing graduate nurses* from hospital staff for *military service*. In effect, therefore, the war period served to intrench more firmly than ever in the public mind this erroneous but long accepted idea that the purpose of "schools" of nursing is to meet immediate staffing needs of hospitals. The advantages available to this school are so great that our responsibility for leadership is inescapable.

PUBLIC RELATIONS

The appointment in July of a Director of Public Information for the school and the hospital nursing service was a significant step through which a great deal has been accomplished. Much needed material has been prepared, news releases have received wide publication, magazine articles have appeared, and, particularly, relationships have been strengthened with schools and organizations which should know of the school program and opportunities in the field of nursing. The problems of nursing education are inextricably tied up with the lack of understanding of the role of the nurse. Conversations with patients in the hospital during Public Health Nursing Week in April illustrated this point very well to our own students and staff who took part in the observance of the week by interpreting the role of the public health nurse to patients and families.

The Cornell Women's Clubs have been of particular help through the interest they have shown in the school. The Dean has been invited to speak at meetings of six clubs in New York and neighboring states. The sustained interest of such informed groups of women who understand the role of universities in preparing for the professions could have a national influence in bringing about better nursing for this country.

Lack of public appreciation of the significance of good schools of nursing as a means of improving the nursing situation in the country is well demonstrated by the lack of public attention in the news. The newspapers of a single day frequently carry announcement of generous grants made to several specific fields in medicine such as multiple sclerosis, smoking as a cause of cancer, physical medicine, the use of streptomycin in tuberculosis, the investigation of metabolic disorders or rheumatic fever. Nursing is a segment of *all* health and medical programs and at the present time an acknowledged bottle neck of medical care. Yet grants specifically for nursing education are conspicuously absent. This school has unexcelled facilities to lead in making as direct and specific an approach to the problems of the education of nurses as is advocated for the solution of problems in these special clinical areas of the medical field. A continuing good public relations program is essential.

70TH ANNIVERSARY

On April 16, the school celebrated the Seventieth Anniversary of its founding in 1877, its fifth year as a school in Cornell. Many alumnae, former faculty members, and friends of the school joined in some part of the day's program.

WHAT THE GRADUATES OF THE SCHOOL ARE DOING

From 1878 through 1946, the school had graduated 1878 nurses, 483 of whom are known to have died, leaving an alumnae group of 1434. In preparation for the Seventieth Anniversary, letters were sent from the Dean's office to all graduates of the school and the following information is based on 723 replies received:—

What per cent of the alumnae are married?

Married	47%
Single	53%
Total	100%

What per cent of the alumnae are active in nursing?

Active in nursing (single or married)		46%
Institutional (including positions in schools of nursing)	19%	
Private Duty	10%	
Public Health	7%	
Industrial	3%	
Miscellaneous Nursing	7%	
Employed outside nursing (single or married)		4%
Inactive or retired (single)		13%
Housewives (married)		37%
		<hr/>
		100%

Do married alumnae continue in nursing?

Since nearly half of all alumnae are married the question is very significant one. The above figures show that although 47% of the alumnae are married, only 37% of all alumnae are housewives without other occupations. Therefore, 10% of all alumnae are active in some field, and, for most of them, the field is nursing.

What per cent of alumnae active in nursing are married?

Active alumnae, married	29%
Active alumnae, single	71%
	<hr/>
Total active alumnae	100%

Applying these percentages to the 1434 living graduates of the school:

The conclusions as to the approximate numbers of alumnae in different fields are: That there are approximately (at the most) 660 graduates of this school who are active in nursing.

That approximately 190 of all active alumnae are married.

That by fields of nursing the numbers of alumnae are:

Institutional	approximately	273
Private Duty	"	144
Public Health	"	100
Industrial	"	43
Miscellaneous Nursing	"	100
		<hr/>
Total		660

Location of graduates (active and inactive)

Graduates heard from were in all sections of the United States including Hawaii, and 13 foreign countries including Canada where quite a number are living.

How do the activities of alumnae differ today from the activities reported 20 years ago (1927)?

Alumnae active in nursing	20 years ago	Today
(% of all active alumnae who were in each field of nursing)		
Institutional (including positions in schools of nursing)	20%	42%
Private Duty	50%	22%
Public Health	28%	15% } 21%
Industrial		6% }
Miscellaneous Nursing	2%	15%
	<hr/>	<hr/>
	100%	100%

The largest change has been in the marked shift from private duty to institutional positions (including positions in schools of nursing). The figures for public health in the earlier period included "related fields." They undoubtedly included any indus-

trial nurses and may have included some positions now classified as miscellaneous nursing. Miscellaneous nursing includes teaching positions in universities as well as positions in doctors' offices, special homes, etc.

COURSES FOR GRADUATE NURSES

New York Hospital Courses: Eighty-eight graduate nurses completed courses of four to six months in length, in comparison with 60 completing in the previous year. The largest number of students were in obstetrical nursing. A number of changes have been made during the year and as of May 1, 1947, all courses have been made six months in length. This meant lengthening by two months all courses except psychiatry which was shortened from 8 to 6 months. The program was strengthened by increasing the class hours from 105 to 130 hours and changing the emphasis and course titles to avoid confusion with courses which prepare for positions of greater responsibility.

ENROLLMENT IN COURSES FOR GRADUATE NURSES

July 1, 1946—June 30, 1947

Course	Completing during the year		As of June 30, 1947	
	Length	Number	Length	Number
Obstetrical Nursing.....	4 mos.	41	6 mos.	13
Psychiatric Nursing.....	8 mos.	0	6 mos.	2
Surgical Nursing.....	4 mos.	16	6 mos.	8
Operating Room Technique and Manage- ment*.....	6 mos.	26	6 mos.	13
Operating Room Technique.....	4 mos.	5	Discontinued	
Total.....		88		36

*As of May 1947, Operating Room Nursing.

Field students from Teachers College: In cooperation with the Nursing Education Department of Teachers College, Columbia University, 20 graduate nurses registered at the College were given field experience. Twelve of their students were in Pediatric Nursing, but included also prenatal clinic and newborns; eight were in Medical and Surgical Nursing. One member of our faculty in the Department of Pediatrics was appointed part time to the Teachers College staff to take charge of the program in pediatrics. In Medicine and Surgery a member of the college staff worked side-by-side with them. The students have spent two days a week caring for selected patients. The understanding and thorough care which has resulted has been commented upon both by the patients for whom they cared and by the nursing and medical staff. A number of our undergraduate students have profited from the thoughtful methods of these graduate students, by attending the nursing clinics which they have presented, as well as by working side-by-side with them.

COURSES FOR AFFILIATING STUDENTS

To students of one university school and three hospital schools of nursing we have continued to offer undergraduate affiliations in obstetric and /or pediatric nursing. During the past year arrangements were completed for these students in pediatrics, as well as our own students to include one week of experience at the Bethany Day Nursery. The difference in background between the hospital students and the students in our own school causes real complications in teaching and necessitates considerable supplementary instruction and supervision. A total of 105 students completed the basic courses as follows:

<i>School of Nursing</i>	<i>Clinical course offered</i>	<i>No. of students completing in 1946-1947</i>
Skidmore College Department of Nursing		
Saratoga, and New York, N. Y.	Obstetrics-16 wks.	39
Burbank Hospital School of Nursing		
Fitchburg, Massachusetts	Pediatrics-16 wks.	13
Samaritan Hospital School of Nursing		
Troy, New York	Pediatrics-16 wks.	20
Moses Taylor Hospital School of Nursing		
Scranton, Pennsylvania	Obstetrics and Pediatrics-32 weeks.	33
Total		105

VISITORS TO THE SCHOOL

The meetings of the International Council of Nurses which was held in this country in May brought many nurses from other countries to the school as visitors, in addition to the usual number throughout the year. Over 100 nurses from other countries and about half that number from various parts of the United States spent from one day to two weeks with us, a few being here more than a month. In addition, groups have visited us as a part of programs set up by Columbia University and by the American Nurses' Association.

During the fall of 1946 groups of nurses brought by U.N.R.R.A. from China, Czechoslovakia, and Italy observed in the school or hospital from one to five days.

The avid interest of these visitors, many of whom have been cut off for years from all professional communication with other countries, and their gratitude for this opportunity have been very stirring.

STUDY OF PEDIATRIC NURSING CARE

A study of the quality of pediatric nursing care was carried out on one floor of the Pediatrics Department over a six-month period, December through May. The study, participated in by several members of the faculty, was under the direction of the Director of Studies of the National League of Nursing Education and in cooperation with the Childrens Bureau, U. S. Department of Labor. This study, which was begun with the development of a measuring rod against which to measure the quality of care, was the first of its kind as far as is known. Although education was not within the purpose of the study there were many educational implications which should now be assembled. There is a great need for further studies of nursing care as a means of improving both care and education.

THE FUTURE

No approach to the problems of the school is more important than that of strengthening the public relations program. Increasing demands for nursing throughout the country are emphasizing the necessity of clarifying the role of the nurse and of the school of nursing. Faculty, alumnae, and students need to play a part in this but particularly important in our case is interpretation of the relation of the School to the total activities of the Medical Center. Building upon the work of the past year, we should be able to see increased returns in the coming year although the problems to be dealt with require long-term planning.

The accelerated program of the Cadet Corps will come to an end with the close of the coming year. One of the main problems to be dealt with is the building up of the needed nursing service in order to permit the leeway desirable for the curriculum of the school and for experimentation in program. Here, too, we look to our own graduates for their continued loyal support. Their acceptance of positions in The New York Hospital with or without appointment on the faculty of the school helps to strengthen the school for oncoming students.

Whatever the place in nursing to be held in the coming years by some individuals in the category of assistant nurse or technician we know there is need for

increased numbers of nurses who understand human relationships, the importance of the family, the development of the normal child, the principles which make possible the constant changes in the practice of nursing to keep pace with changing practices in medicine; who will be effective as members of their community in bringing about improved organization to meet health needs and in tackling the problems of the economics of nursing care. The curriculum revisions to be planned in the coming year should bring us closer to finding the combination of academic and clinical opportunities best suited for the basic preparation of such a nurse.

VIRGINIA M. DUNBAR,
Dean of the School of Nursing.

APPENDIX XXVIII

REPORT OF THE DIRECTOR OF VETERANS EDUCATION

To the President of the University:

SIR: I have the honor to submit the following report of the Office of Veterans Education for the year 1946-1947.

The enrollment of veterans during 1946-1947 represents, by comparison with the terms of the preceding year, an increase of ten times in the summer sessions, a four-fold increase in the fall, and double the number in the spring term. With all but a few hundred of the former Cornell students who entered military service now returned as veterans, and with the student capacity of the University leveling off at about 9,500, it appears that the approximate limit of veterans' enrollment has been reached. For both the fall and spring terms the ratio of veterans to non-veteran men was 73 per cent. This proportion will probably not be exceeded.

The readjustment of veterans to the life of the University has created few problems. The Willard Straight Veterans Committee served until May as a student center for problems peculiar to veterans. This Committee cooperated most effectively with the Office of Veterans Education and rendered a significant service to veterans on campus. The Committee disbanded at the end of the spring term with the conviction that its purpose had been fulfilled.

The chief remaining problem of adjustment is created by the married veterans who have comprised 25 per cent of the total veteran enrollment. Thirteen hundred student families with upwards of one thousand children have raised many questions involving housing, medical care, nursery schools, and financial assistance. In anticipation of these problems, a veteran's wife, Mrs. K. B. Bowen, was in December appointed Coordinator for Family Affairs. Stressing cooperative endeavor and coordinated self-help, many projects brought to light by a questionnaire survey of needs were undertaken and carried to various stages of solution. A cooperative nursery school was one of the first projects to be realized in tangible accomplishment. One of the most useful functions of the Coordinator's office is that of information center by which veterans' families are kept currently informed of community and other services, employment opportunities, etc.

Veterans' financial problems are two-fold. Delayed receipt of Veterans Administration subsistence allowances resulted in the establishment of a revolving University loan fund for veterans from which non-interest bearing loans can be made to veterans up to the amount the Veterans Administration is in arrears on such payments. A more serious problem is the financial burden of the married veteran for whom the present government allowances are wholly inadequate without substantial personal resources from earnings or savings. Any means whereby living costs of married veterans can be reduced or their incomes increased are therefore pursued with vigor.

Public Law 16 (disabled) veterans have amounted to about 12 per cent of the total number. The problems of this group have received the earnest consideration of the several faculties and many desirable adjustments have been made.

PRESIDENT'S REPORT

The most cordial relationship continues with Veterans Administration and the cooperative spirit of the staffs of the local and regional offices especially has been most gratifying and conducive to service in the interests of the veteran. In July the Cornell Office of Veterans Education was host to members of the Veterans Administration and representatives of up-state colleges at a conference to discuss problems of mutual concern. For the purpose of providing continued exchange of information and opinion a committee of college directors of veterans affairs was appointed of which the Director of this Office has served as chairman.

About 50 veterans, under benefits of the Canadian Department of Veterans Affairs, continue at Cornell. The Canadian government has been most cooperative with respect to these students.

State War Service Scholarships for Veterans, issued by the State of New York, were held by twenty-three veterans during the year. By law, these veterans could not be concurrently enrolled under benefits of the Veterans Administration.

The Cornell Guidance Center tested and appraised 3292 veterans during the year. Of these, 1847 were Public Law 346 veterans and 1,445 were under Public Law 16. On June 9, the Center tested the 5000th veteran since it opened on November 16, 1944.

During the winter the Center reached its peak load of about 75 cases a week. This load has since moderated and adjustments in personnel have been made accordingly.

As an aid to instruction and research the Guidance Center was used in a systematic way by 75 graduate students, five of whom, using available data, prepared research studies at the master's level and one at the Ph.D. level.

<i>Summer Courses</i>	<i>Veteran Enrollment 1946-1947 Fall Term</i>	<i>Spring Term</i>
1,559	5,201	5,119
Grand Total.....		11,879
Less Duplicates.....		5,652
		<hr/> 6,227

Enrollment by Schools and Colleges

	<i>Summer</i>	<i>Fall</i>	<i>*Spring</i>
Agriculture.....	†77	865	861
Architecture.....	34	126	120
Arts and Sciences.....	—	1,011	992
Business and Public Administration.....	—	23	22
Engineering.....	—	1,831	1,795
Chemical.....	—	(310)	(276)
Civil.....	—	(339)	(338)
Electrical.....	—	(445)	(447)
Mechanical.....	—	(733)	(726)
Eng. Physics.....	—	(4)	(8)
Graduate.....	—	495	437
Home Economics.....	—	17	11
Hotel Unit Courses.....	69	306	290
Hotel Cooperative Training.....	†72	—	—
Industrial and Labor Relations.....	†54	174	186
Law.....	172	284	268
Nutrition.....	—	—	4
Veterinary.....	—	69	67
Summer Session (6 weeks.).....	1,081	—	—

*U. S. veterans only.

†Cooperative Training, whereby a veteran obtains V. A. benefits during his required periods of work practice or internship.

() Includes only veterans receiving training benefits.

LOREN C. PETRY,
Director of Veterans Education.