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President's Report
by
Livingston Farrand
for 1930-31

With appendices containing a summary of
financial operations, and reports of
the Deans and other officers

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REPORT OF THE PRESIDENT FOR 1930-31

To the Board of Trustees of Cornell University:

I have the honor to present the following report on the progress of the University during the academic year 1930-31.

The University has suffered serious loss by death of the following distinguished figures:

Charles E. Treman, a Trustee of the University, died in Ithaca on October 16, 1930. He was elected by the Alumni in 1902 and re-elected in 1907 for five-year terms. In 1912 he was elected by the Board to fill the vacancy caused by the death of Emerson McMillin. He was a member of the Committee on General Administration.

George F. Baker, a Trustee of the University, died in New York City on May 2, 1931. He was elected by the Board in February, 1922, to fill the vacancy caused by the death of Emmons L. Williams.

Irving P. Church, Professor of Applied Mechanics and Hydraulics, Emeritus, died on May 8, 1931. He was appointed Assistant Professor of Civil Engineering in 1876 and in 1891 was promoted to an Associate Professorship in that subject. In 1892 he was elected Professor of Applied Mechanics and Hydraulics and held that position until he retired from active service in 1916.

Anna Botsford Comstock, Professor of Nature Study, Emeritus, died on August 24, 1930. She was appointed Assistant in Nature Study in 1897 and was Lecturer from 1903 to 1913. In 1913 she became Assistant Professor of Nature Study and in 1920 was promoted to a professorship. She retired from active service in 1922 though she continued to give courses in the Summer School in Agriculture until about a fortnight before her death.

John H. Comstock, Professor of Economics and General Invertebrate Zoology, Emeritus, died on March 20, 1931. He was Instructor in Entomology from 1873 to 1876 and Assistant Professor of that subject from 1876 to 1882. In 1882 he was elected Professor of Entomology and General Invertebrate Zoology and held that position until he retired from active service in 1914. From 1916 to 1920 he was Faculty Representative on the Board of Trustees.

Herbert J. Davenport, Professor of Economics, Emeritus, died on June 16, 1931. He was Professor of Economics from 1916 to 1929, when he retired from active service.

Whitman H. Jordan, Professor of Animal Nutrition, Emeritus, died in Orono, Maine, on May 8, 1931. He was Director of the State Agricultural Experiment Station from 1896 to 1921 and was Professor of Animal Nutrition in the University from 1920 to 1921. In 1921 he was elected Professor Emeritus. As President of the New York State Agricultural Society he was a trustee of the University, ex officio, for the year 1920.

Veranus A. Moore, Professor of Comparative and Veterinary Pathology and Bacteriology and of Meat Inspection, Emeritus, and Dean of the New York State Veterinary College, Emeritus, died on February 11, 1931. At the opening of the State Veterinary College in 1896 he was appointed to the professorship mentioned and held that title until he retired in 1929. From 1915 to 1929 he was Dean of that College. Dr. Moore was Faculty Representative on the Board of Trustees from 1926 to 1929.

Pierre A. Fish, Professor of Veterinary Physiology and Dean of the New York State Veterinary College, died on February 19, 1931. He was Instructor in Physiology and Anatomy from 1890 to 1895. In 1896 he was appointed Assistant Professor of Physiology, Materia Medica, and Pharmacy; and in 1902 became Professor of Comparative Physiology and Pharmacology. From 1919 to 1931 he was Professor of Veterinary Physiology and in 1929 he was elected Dean of the Veterinary College.

Harold E. Santee, Professor of Clinical Surgery, died on December 26, 1930. He had held positions in the Departments of Clinical and Operative Surgery for several years before his appointment to an assistant professorship in Clinical Surgery in 1921. In 1928 he was promoted to a professorship.

Martin W. Sampson, Goldwin Smith Professor of English Literature and Head of the Department of English, died in Pittsburgh on August 22, 1930. He came to Cornell in February, 1908, as Acting Professor of English Literature. In 1909 he was elected to a professorship and made head of the department. The name of that department was later changed to Department of English. In 1912 Professor Sampson's title became Goldwin Smith Professor of English Literature.

Webster W. Belden, Instructor in Roentgenology, died in December, 1930.

David F. Hoy, Registrar of the University, died on December 6,

1930. He was appointed Assistant Registrar in 1891 and in 1895 became Registrar and occupied that position until his death.

Charles A. Brewer, Auditor, died on August 19, 1930.

THE TRUSTEES

Stanton Griffis, of the Class of 1910, was appointed by the Governor a trustee for a term of five years in succession to Dr. Frank H. Miller, whose term expired in June, 1931.

At the meeting of the Board held in January, 1930, Ezra B. Whitman, an alumni trustee with term expiring in June, 1931, was elected to fill the trusteeship left vacant by the death of Charles E. Treman.

On June 15, 1931, Trustees Walter P. Cooke, Frank H. Hiscock, and J. DuPratt White were elected to succeed themselves for five-year terms. Judge Hiscock was re-elected Chairman of the Board, and Mr. White, Vice-Chairman.

The Alumni re-elected Frank E. Gannett for a term of five years and elected Robert E. Treman, of the Class of 1909, to fill the vacancy in the group of trustees whose terms expired in June, 1931, caused by the transfer of Mr. Whitman to another group.

The University Faculty elected Professor Emeritus Liberty Hyde Bailey as Faculty Representative on the Board of Trustees to succeed Professor G. F. Warren, whose term expired at the end of the calendar year, 1930.

Frank P. Graves was elected to succeed Charles E. Treman on the Committee on General Administration.

Frank E. Gannett was elected to succeed himself on the Committee on General Administration.

Walter P. Cooke and Frank H. Hiscock were re-elected to membership on the Committee on Finance.

ADMINISTRATION

At the June meeting of the Board of Trustees the office of Provost was created and Albert R. Mann was appointed to the position.

Conant Van Blarcom was appointed Superintendent of Buildings and Grounds in succession to Charles E. Curtis, retired.

THE FACULTY

The following appointments and promotions have been made during the year :

F. K. Richtmyer, Dean of the Graduate School, in succession to R. A. Emerson, whose term expired at the end of the first term of

1930-31; B. S. Monroe, Acting Dean of the Graduate School, during the absence of the Dean for the Summer of 1931; Cornelius Betten, Acting Dean of the State Colleges of Agriculture and Home Economics; C. A. Martin, Acting Dean of the College of Architecture during the absence of Dean Young for the first term of 1931-32; Herman Diederichs, Acting Dean of the College of Engineering in the autumn of 1930 during the absence of Dean Kimball; W. L. Conwell, Chairman, H. N. Ogden, and L. C. Urquhart were constituted a Committee on Administration of the School of Civil Engineering; Earl Sunderville, Chairman, W. A. Hagan, and R. R. Birch were constituted a Committee on Administration of the State Veterinary College; J. E. Butterworth, Director of the Graduate School of Education; E. F. Bradford, Director of Admissions, was also appointed Registrar in succession to D. F. Hoy, deceased; R. H. Wheeler, Acting Director of Extension in the State Colleges of Agriculture and of Home Economics during the absence of C. E. Ladd on leave; W. F. Willcox, Professor of Economics and Statistics, Emeritus; A. L. Andrews, Professor of German; J. R. Bangs, Professor of Industrial Engineering; L. N. Broughton, Professor of English; E. A. Burt, Professor of Philosophy (Philosophy of Religion), effective 1932-33; B. S. Monroe, Professor of English; J. H. Parker, Acting Professor of Plant Breeding; W. C. Ruediger, Acting Professor of Education; G. H. Sabine, Professor of Philosophy; Doris Schumacher, Acting Professor of Home Economics; F. M. Smith, Professor of English; H. A. Wichelns, Professor of Public Speaking; E. A. Abbuehl, Assistant Professor of Architecture; R. P. Agnew, Assistant Professor of Mathematics; W. A. Anderson, Assistant Professor of Rural Social Organization; Olga P. Brucher, Assistant Professor of Home Economics in the Department of Foods and Nutrition; A. B. Burrell, Assistant Professor of Plant Pathology; R. W. Church, Assistant Professor of Philosophy; E. A. J. Johnson, Assistant Professor of Economics; D. S. Kimball, Jr., Assistant Professor of Industrial Engineering; G. A. Knaysi, Jr., Assistant Professor of Bacteriology in the Department of Dairy Industry; M. G. Northrop, Assistant Professor of Electrical Engineering; A. P. Pelmont, Assistant Professor of Romance Languages and Literatures; Gilbert Ross, Acting Assistant Professor of Music; Ora Smith, Assistant Professor of Vegetable Crops; F. A. Southard, Jr., Assistant Professor of Economics; Louis Toth, Assistant Professor of Ac-

counting in the College of Home Economics; A. L. Winsor, Acting Assistant Professor of Rural Education.

In the Medical College in New York City the following have been appointed or promoted:

W. S. Ladd, Associate Dean; G. S. Amsden, Professor of Psychiatry; I. J. Furman, Professor of Clinical Psychiatry; H. S. Gasser, Professor of Physiology; G. J. Heuer, Professor of Surgery; J. M. Neill, Professor of Bacteriology and Immunology; E. L. Opie, Professor of Pathology; W. D. Andrus, Associate Professor of Surgery; J. R. Carty, Associate Professor of Radiology; Gervais W. McAuliffe, Assistant Professor of Clinical Surgery, Department of Otology; H. G. Wolff, Assistant Professor of Medicine.

The following appointments have been made in the Extension Staff of the State Colleges:

Margaret Wylie, Extension Professor of Home Economics; G. C. Bradt, Assistant Extension Professor of Animal Husbandry; C. B. Raymond, Assistant Extension Professor of Vegetable Gardening; Lillian Shaben, Assistant Extension Professor of Home Economics.

In the Agricultural Experiment Station at Geneva the following have been appointed:

D. C. Carpenter, C. S. Pederson, and L. R. Streeter, Chiefs in Research (with the title of professor); J. D. Luckett, Editor (with the title of professor); L. N. Cooley, H. S. Cunningham, Z. I. Kertesz, J. C. Marquardt, L. F. Randolph, A. L. Shock, W. F. Walsh, M. W. Yale, Associates in Research (with the title of assistant professor).

Professor Frank Jewett Mather, Jr., of Princeton University has been appointed Messenger Lecturer for the academic year 1931-32. His subject will be "The Golden Age of Venetian Painting."

The non-resident Lecturers in Chemistry on the George F. Baker Foundation for 1931-32 will be Dr. Cecil H. Desch of the University of Sheffield, England, and Dr. Alfred Stock, of Karlsruhe, Germany.

The following have presented their resignations:

J. Q. Adams, Professor of English; W. F. Willcox, Professor of Economics and Statistics; H. P. Cooper, Assistant Professor of Field Crops; Alva Gwin, Assistant Medical Adviser of Women and Assistant Professor of Hygiene and Preventive Medicine; Edith H. McArthur, Assistant Professor of Home Economics; W. F. McDonald, Assistant Professor of Classics; C. F. Roos, Assistant Professor of Mathematics; R. S. Uhrbrock, Assistant Professor of

Education; H. P. Hoguet, Assistant Professor of Clinical Surgery; George B. McAuliffe, Assistant Professor of Clinical Surgery, Department of Otology; J. D. Brew, Extension Professor of Dairy Industry; Lucile Brewer, Extension Professor of Home Economics; R. A. Felton, Extension Professor of Rural Social Organization; Marguerite Wilker, Extension Professor of Home Economics; J. B. Cotner, Assistant Extension Professor of Plant Breeding; Helen Hubbell, Assistant Extension Professor of Home Economics; E. E. Clayton, Associate in Research (Botany).

THE STUDENTS

The official enrollment of students for the year ending June 30, 1931, was 6246 as compared with 5926 for the previous year.

Owing to the policy of restricting the number of admissions in most of the colleges of the University, no striking change is evident in the enrollment except in the Graduate School, where rapidly increasing registration is presenting a problem of importance.

MATERIAL DEVELOPMENT

An outline of the physical growth of the University is presented in the Report of the Comptroller. It should be especially recorded that the War Memorial was dedicated with appropriate ceremonial on May 23. Work on the impressive Myron Taylor Hall is progressing, as is also that on the new buildings for the State Colleges provided by legislative appropriation. The construction of the buildings of the New York Hospital and of the Medical College in New York City is proceeding according to schedule and the new plant will be ready for occupancy in the summer of 1932.

GENERAL

The educational development of the several colleges is reviewed in the reports of the deans appended hereto and which are commended to the Board's careful attention.

It is inevitable that the economic conditions of the country should be reflected in the situation of the University. Much-needed improvements in all departments have had to be postponed and I shall not at this time repeat the list of our critical needs which have been presented in previous reports and with which the Board is already familiar. While the inability to make needed improvements is disturbing,

it is encouraging to note that the educational and research activities of the University are proceeding with no signs of loss of vigor.

The action of the Board in providing a system of group insurance is much appreciated by the University staff.

Notwithstanding the difficult atmosphere for its efforts, the Cornellian Council has continued its invaluable work with its customary energy and with results which are striking. The University owes a particular debt of gratitude to the alumni for their generosity in this period, as expressed by their contributions through the Council.

I wish again to voice my deep appreciation of the cordial support which has been given to the administration by the Board and by the Faculty, as well as by the Students and the Alumni. No coöperation could be more complete.

Respectfully submitted,

LIVINGSTON FARRAND,
President.

SUMMARY OF FINANCIAL OPERATIONS

To the President of the University:

I have the honor to submit herewith the financial statement of Cornell University covering the fiscal year from July 1, 1930, to June 30, 1931, inclusive.

The net cost of conducting the endowed colleges at Ithaca during the year exceeded the income available for that purpose by \$135,807.18. This amount added to the existing debit balance at the beginning of the year increases the accumulated deficit in current income to \$196,906.85. Appropriations not yet expended, but necessarily continued to cover contracts made or under consideration, amount to \$83,319.97, making the total debit balance \$280,226.82 in the current maintenance account. Items for the purchase of property for the future needs of the University or for expenditures made in anticipation of building operations amount to \$1,124,724.31. These items have been financed temporarily from current credits and by borrowing from the endowment funds and must eventually be met by gifts or appropriations from funds now treated as endowment, or from current income.

The income of the Medical College in New York exceeded the disbursements for the year by \$48,112.51, thereby increasing the credit balance in current income to \$244,226.24. Of this amount \$150,000 has been appropriated to cover certain temporary or emergency services to be engaged in by the college during 1931-32 in preparation for the transfer to the new site and organization, and \$24,807.02 is necessarily reappropriated to meet authorized obligations. There remains a credit balance of current income of \$69,419.22.

The expenses of the State colleges at the University in excess of gifts for current expenses and certain income available from University and Federal funds were fully met from the appropriations made by the State of New York.

On June 15, 1931, the group insurance plan as applicable to the teaching and administrative staffs of the University became effective. It now covers 1,227 persons with insurance aggregating \$4,780,000. These figures will undoubtedly be increased when the staffs reach their maximum number with the opening of the University in the Fall. The group insurance provision has been eagerly accepted by a large proportion of those eligible to its benefits and the cost will make the balancing of budgets in the future even more difficult than at present.

THE UNIVERSITY ENDOWMENT

The permanent endowment or income producing funds of the University aggregate \$24,919,028.02, an increase of \$898,152.15 during the year. Of these funds \$17,202,485.15 are for the benefit of the

University at Ithaca and \$7,716,542.87 for the Medical College in New York City.

The average rate of return received upon investments during the year and credited to the several funds was 5.268 per cent, as compared with 5.523 per cent in the preceding year, and an average of 5.431 per cent for the preceding ten years. The decrease in the average rate of return from 5.523 per cent to 5.268 per cent is accounted for partly by defaults in our Seaboard Airline bonds, by the lower interest rates on securities purchased during the year, by decreases in dividends on some of our railroad and other stocks, and by the larger amount of uninvested cash held throughout the year—following a deliberate policy of the Finance Committee during this unsettled period.

The market values of our securities have, in line with the values of securities throughout the world, dropped below our book values by some \$2,294,000. Approximately \$981,000 of this decrease in values is in the securities, largely oil and tobacco stocks, received from the Payne Whitney estate. Deducting this shrinkage from the total of \$2,294,000 leaves a net shrinkage in our consolidated endowment securities of approximately \$1,313,000. These figures may be compared with those of July 1, 1921, when the book values of the University's securities exceeded the market values by approximately \$3,500,000.

	Bonds	Preferred Stocks	Common Stocks	Totals	% of Total
Municipal	\$ 904,452.97			\$ 904,452.97	3.6
Railroads	2,586,874.85	\$ 212,825.00	\$2,031,261.46	4,830,961.31	19.4
Public Utilities	1,865,723.45	1,060,942.50	944,864.30	3,871,530.25	15.5
Industrials:					
Tobacco	203,000.00	108,745.00	402,802.88	714,547.88	2.9
Steel	221,707.50	54,595.50	64,500.00	340,803.00	1.4
Merchandising ...	274,927.79	865,877.38	171,464.21	1,312,269.38	5.2
Manufacturing ...	961,164.71	1,215,602.40	531,513.20	2,708,280.31	10.9
Oil	271,297.03	138,135.87	1,183,856.99	1,593,289.89	6.4
Mining	145,656.25	100,000.00	185,590.00	431,246.25	1.7
Holding Co. and In- vestment	249,556.25	194,475.00	54,580.00	498,611.25	2.0
Bank and Insurance			1,215,000.45	1,215,000.45	4.9
Real Estate Securities	3,692,887.75	700.00	506,668.67	4,200,256.42	16.9
Local Real Estate...				562,780.87	2.3
Heat & Water Plants				979,730.25	3.9
Purchase and Con- struction Accounts					
Unprovided for ...				755,267.54	3.0
	<u>\$11,377,248.55</u>	<u>\$3,951,808.65</u>	<u>\$7,292,102.16</u>	<u>\$24,919,028.02</u>	<u>100.0</u>

As this is being written it looks as if the financial and industrial crisis through which the world is passing would bring about a further decrease in our average rate of return for the present fiscal year.

The above table shows the diversification of the University's investments.

SEMI-CENTENNIAL ENDOWMENT FUND

The subscriptions (exclusive of gifts for special purposes, such as buildings, which, under the resolution of the Board of Trustees, form part of the Semi-Centennial Endowment Fund) secured by the Semi-Centennial Endowment Committee aggregate \$6,660,595.29.

From this amount there has been charged off as uncollectible:

By the Treasurer	\$106,462.50	
By the Cornellian Council (Classes 1920-23)	217,040.25	\$ 323,502.75
Leaving the net subscriptions July 1, 1931		\$6,337,097.04
Of these there have been collected		<u>4,195,043.91</u>
Leaving the balance uncollected July 1, 1931		\$2,142,053.13

Of these uncollected subscriptions \$697,762.56 are from the Classes of 1920-23 inclusive, payable through the Cornellian Council and not yet due; \$1,192,414.96 are payable at the convenience of the donor; and \$43,366.05 are payable at definite dates which have not yet been reached. This leaves a balance of only \$208,509.56 of subscriptions which, by their terms, have matured but have not yet been paid. During the year, in addition to \$2,314.29 paid through the Cornellian Council, there was paid into the University on account of the principal of subscriptions \$40,087.96. Of this amount, \$29,151.88 was paid on account of principal maturing prior to the beginning of the year; \$3,003.70 on principal maturing during the year; and \$7,932.29 on account of subscriptions not yet matured or payable at convenience. Interest amounting to \$33,893.14 was collected. Twenty-six extensions of time of payment were granted and thirty subscriptions were paid in full.

GIFTS

Donations to the University passing through the books of this office during the year aggregated \$1,333,032.26. Undoubtedly some gifts were made directly to departments and were not reported to us. In addition to the payment of \$73,981.10 on account of subscriptions to the Semi-Centennial Endowment Fund above mentioned, donations were received from alumni through the Cornellian Council aggregating \$726,983.88. Other gifts amounted to \$532,067.28.

THE PHYSICAL PLANT

The War Memorial group of residential halls for men, including the Towers with the connecting Cloister, and McFaddin and Lyon Halls, was completed early in the year, as was also Boldt Tower. The Plant Science building erected by the State for the College of Agriculture was finished and occupied during the academic year. The construction of Myron Taylor Hall to house the Law School has progressed steadily and it is expected that the building will be

completed during the coming year. The contract for the laboratory building at the New York State Experiment Station at Geneva has been let and work begun. Plans and specifications for the new building for the College of Home Economics and the building for the department of Agricultural Economics in the College of Agriculture are nearing completion and contracts will probably be let in the Fall.

Mr. Charles E. Curtis, '85, who has served the University as Superintendent of Buildings and Grounds since October 1, 1915, retired on June 30, 1931, pursuant to the provisions of the University Statutes. During his superintendency, building projects totaling more than \$12,000,000 have been erected on the Campus. These include the Baker Dormitories, the Drill Hall, the Baker Chemical Laboratory, Boldt Hall, Willard Straight Hall, Balch Halls, the War Memorial, the Plant Science building, the Dairy building, and the Central Heating Plant, as well as the new Water Plant and Reservoir. He gave to these projects the benefit of a wide engineering and construction experience, and at the same time handled the routine care and maintenance of buildings and grounds in a quiet and efficient manner.

Mr. Conant Van Blarcom, a graduate of the University with the Class of 1908, succeeds Mr. Curtis as Superintendent of Buildings and Grounds.

The routine work of the service departments of the University is, I believe, satisfactorily performed.

Respectfully submitted,

CHARLES D. BOSTWICK,

Comptroller.

NOTE: The complete report of the Comptroller and the Treasurer, bearing the certificate of audit of Messrs. Haskins & Sells, certified public accountants, 37 West Thirty-ninth Street, New York City, together with the reports of the Superintendent of Buildings and Grounds, the Manager of Purchases, and the Manager of Residential Halls, will be forwarded to the members of the Faculty and Alumni upon receipt of specific request addressed to the Comptroller of Cornell University, Ithaca, New York.

APPENDIX I

REPORT OF THE SECRETARY OF THE UNIVERSITY FACULTY

To the President of the University:

SIR: I have the honor to submit the following report of the University Faculty for the year 1930-31:

CHANGES IN THE FACULTY'S MEMBERSHIP

Since the close of the academic year 1929-1930 the University community in Ithaca has lost by death seven of its members: the Goldwin Smith Professor of English Literature, Martin Wright Sampson; Anna Botsford Comstock, Professor of Nature Study, Emeritus; David Fletcher Hoy, the University Registrar; Veranus Alva Moore, Professor of Veterinary Pathology, Emeritus, and sometime Dean of the New York State Veterinary College; Pierre Augustine Fish, Professor of Veterinary Physiology and Dean of the New York State Veterinary College; John Henry Comstock, Professor of Entomology and General Invertebrate Zoology, Emeritus; Irving Porter Church, Professor of Applied Mechanics and Hydraulics, Emeritus. To all who knew them the bare recital of their names brings individual memories of affection, gratitude, and pride. The active service of no one of them covered less than twenty-two years; one of them formed his first connection with the instructing staff in 1873, another even since his student days had filled a responsible administrative post. All gave to Cornell the best years of very useful lives. The University counts itself rich to have numbered them among its faculty, and fortunate that it had them so long.

Less known than these to his colleagues in Ithaca was Whitman Howard Jordan, emeritus Professor of Animal Nutrition, who died on May 8, 1931, at his home in Orono, Maine. Professor Jordan was for twenty-five years the distinguished director of the New York Agricultural Experiment Station at Geneva, and in the last year of that service held a professorship at Cornell. As president of the New York State Agricultural Society he also served an *ex officio* term on the Board of Trustees of the University.

Professor William Alexander Hammond, for seventeen years Secretary and for ten years Dean of the University Faculty, retired at Commencement in 1930. This is not the place nor the time to appraise the manifold contributions of the teacher and man to successive generations of undergraduates and faculty; it is proper, here and now, to record the Faculty's appreciation of the good sense, good taste, and assiduity with which he conducted its administrative business, and not least of the scrupulous impartiality with which he exercised its disciplinary authority over the students of the University. At the recent Commencement Professor Walter Francis Willcox retired from active service as professor of economics and statistics. In the 40 years since Professor Willcox came to Cornell his associates have learned to rely in a unique measure on his clear vision and even judgment; they chose him among the first to be a Faculty Representative on the Board of Trustees.

There are at present 30 professors in the emeritus relation, of whom 15 make their home in Ithaca. From these residents at least we may hope active and continued participation in faculty counsels if on the Faculty's suggestion the Board of Trustees finds it practicable so to amend the Statutes as to make emeritus professors members of the University Faculty.

The active members of the University Faculty numbered, last year, 378 resident in Ithaca. An amendment to paragraph A of sub-division 3 of Article VIII of the Statutes of the University should be noted whereby the Associate Librarian was included in the membership of the Faculty. In the year 1930-1931 the Board of Trustees granted leaves of absence, for the whole or part of the academic year, to 41 members of the instructing staff.

The Faculty held nine regular sessions and no special session.

FACULTY REPRESENTATIVES ON THE BOARD OF TRUSTEES

On December 10 the Faculty elected Liberty Hyde Bailey, Professor in the College of Agriculture, Emeritus, to be Faculty Representative on the Board of Trustees for the regular term of three years, beginning January 1, 1931, in succession to Professor George F. Warren. The other present representatives are Professor Herman Diederichs and Professor Ernest G. Merritt.

THE LIBRARY AND HECKSCHER COUNCILS

On October 8 Professor William Strunk was re-elected to the Library Council as representative of the Group of Letters, and Professor Glenn W. Herrick was elected as representative of the Group of Science; their terms will run from November 1, 1931 to October 31, 1933. On October 8, also, the Group of Science re-elected Professor Samuel L. Boothroyd to the Heckscher Research Council for a four-year term beginning November 1, 1931.

WAR ALUMNI

At Commencement, 1931, on recommendation of the University Faculty the Board of Trustees conferred the distinction of War Alumnus on Harold Charles Estabrook, ex-'17 in the College of Engineering, and on Wesley Moon Dixon, ex-'18 in the College of Arts and Sciences.

UNIVERSITY UNDERGRADUATE SCHOLARSHIPS

Professor Walter B. Carver, chairman of the Committee on Undergraduate Scholarships, transmits the following statement of the work of his committee:

There were 190 permits issued for the September, 1930, examinations, but only 127 competitors took all three of the required examinations. They are required to take examinations in English, Mathematics, and one of the languages French, German, Greek, Italian, Latin, or Spanish. The numbers electing the several languages this year were: Italian 1, German 10, Spanish 11, Latin 30, French 75.

The difficulty of making a fair comparison of the linguistic ability of competitors taking different examinations in different languages is apparent. It has been proposed that the competition be based on the examinations in English and Mathematics alone, but the Committee is not prepared at present to recommend this change. This question is being studied in the hope that a procedure somewhat more satisfactory than the present one can be devised.

In addition to the eighteen University Undergraduate Scholarships and the two Eudorus C. Kenney Scholarships, the new George W. Lefevre Scholarships will be awarded on the basis of these competitive examinations each fall. Two of these Lefevre Scholarships were awarded for the first time in September, 1930, and hereafter there will be five of them available each year.

THE ESTABLISHMENT, MODIFICATION, AND DISCONTINUANCE OF DEGREES

On January 16, 1930, the Board of Trustees amended paragraph A, Section 3, Article VIII of the Statutes of the University to vest in the University Faculty the function of recommending to the Board of Trustees "the establishment, modification, or discontinuance of degrees. Such recommendations shall be made only after the approval of baccalaureate degrees by the faculties of the separate colleges and of advanced degrees by the Faculty of the Graduate School." This new function the University Faculty exercised on March 11 when, at the request of the Faculty of the College of Engineering, it formally recommended to the Board of Trustees the establishment of the degree of Bachelor of Science in Administrative Engineering to be conferred on completion of a course of studies outlined by the Faculty of Engineering.

STANDING COMMITTEES

At the first meeting of the academic year a special committee was authorized "to review the present standing committees, their constitution, duties, and function" and to report its recommendations to the University Faculty. In accordance with the recommendations thus received, the Faculty voted on Decem-

ber 10 to discharge the Entrance Examinations Board, turning over its functions to the Director of Admissions; to discharge the Committee on Health, since its functions are already provided for by the Committee on Hygiene and Sanitation, of the Board of Trustees; and to divide the duties of the important Committee on Student Affairs between two new committees to be known as the Committee on Student Conduct and the Committee on Student Activities. To the Committee on Student Conduct the disciplinary authority formerly exercised by the Committee on Student Affairs was duly delegated by the Board of Trustees; to the Committee on Student Activities is entrusted, by the Faculty, general supervision over the vast range of student work and play *extra curriculum*. Generally successful as the workings of the Committee on Student Affairs may have been, its duties certainly were oddly assorted, and the new arrangement has at least more logic.

Other important matters to engage the attention of the Faculty have been the compulsory feature of military training, the development of radio broadcasting, and the relations of the University Faculty to the Cornell Athletic Association and Cornell Athletic Council.

Mention of the recent introduction of a plan of group insurance may properly close this report. The University's servants expect to find in it an occasion for increasing gratification, and for increasing gratitude to you and to the Board of Trustees.

R. P. SIBLEY,
Secretary of the University Faculty.

APPENDIX II

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 year 1930-31.

The retirement of Professor R. A. Emerson from the deanship of the Graduate School at the end of the first semester of the current year was universally regretted by students and faculty alike. Not only did Professor Emerson bring to the deanship the prestige and experience of a distinguished scientist, but the mature judgment which he ever exercised and his sympathetic interest in graduate students and in all fields of graduate study have maintained the high standards set by his able predecessors in office.

ENROLLMENT AND DEGREES GRANTED

There is appended to this report a series of tables showing the present status of our graduate student body and its growth during the past five years. The number enrolled during the current year (excluding summer session) is slightly over 1000—an increase of nearly fifty per cent. since 1926-27. The increase over 1929-30 is nearly 16 per cent. The increase in the number of candidates for the doctorate has been greater, relatively, than of candidates for the several master's degrees. In 1926-27 there were about the same number of candidates for the doctorate as for the master's degrees. In 1930-31, 54 per cent. of all graduate students were candidates for the doctorate as against 37 per cent. for the master's degrees. As regards relative growth during the past fifteen years Cornell stands ninth in the list of the twelve American universities which show the largest growth. In this respect Cornell ranks with Harvard, Yale, Chicago, Illinois, and Wisconsin.

The following table shows the classification of graduate students (excluding "non-candidates") according to the fields in which the major subjects are located:

	1930-31		1926-27	
	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>
Humanities and Social Sciences	295	32	253	37
Physical and Biological Sciences	406	44	306	45
Professional Fields	214	24	118	18

It is to be noted that the relative number of students in the physical and the biological sciences has remained almost constant. There has been a relative decrease in the humanities and the social sciences, and a very significant increase in the number of candidates for the several professional degrees.

Of course, this substantial increase—50 per cent. in five years—in total enrollment is very gratifying in that it reflects the increased recognition which our graduate work is receiving. In 1926-27, 65 per cent. of our graduate students came from institutions other than Cornell. In 1930-31 that proportion had increased to 71 per cent.* In 1926-27, 54 per cent. of our students came from outside of New York State. In 1930-31 the corresponding proportion was 59 per cent.

We should not, however, be deluded into accepting mere numbers as an index of the success, or even of the recognition, of our graduate work. There are numerous other criteria on the basis of which, taking our graduate school as a whole, we are forced to the conclusion that although Cornell stands well up among the leaders of the country, there is still room for decided improvement if we would render the highest type of service which a graduate school should render. I am firmly convinced that the problem to which we should set ourselves during the next decade is that of improving our standards and of raising still higher the quality of our graduate offerings.

From whatever viewpoint we approach the problem, the means by which this much-to-be-desired improvement can be effected boil down to this: We must increase so far as may be possible the ratio of the total resources available for graduate work to the total number of graduate students whom we wish to admit.

It is, of course, desirable to add to our resources as much as possible, in order that we may strengthen our faculty by bringing in men, particularly young men, of promise and distinction in the several fields of study; in order that we may provide better facilities, both library and laboratory, for graduate work and research; and particularly that we may offer to the members of the faculty better opportunities for carrying on their own investigations, since it is almost axiomatic that adequate direction of graduate work requires that the professor himself shall be a productive scholar. It cannot be emphasized too strongly that larger funds than are now available are urgently needed for these several purposes. I hope that the time is not far distant when such funds may be placed at our disposal.

Parenthetically, special attention should be called to the very favorable reaction upon our graduate work of the grants in aid of research made by the Heckscher Research Council. The influence of the work of that Council extends far beyond the comparatively small group of persons to whom grants have been made.

Irrespective, however, of any increase in resources, a substantial improvement in our graduate work can be made by dividing our present facilities of time, equipment and money, among a smaller number of graduate students. I am not alone in holding the view that, taking the graduate school as a whole, our enrollment is too large. Indeed, I should go so far as to say that, regardless of any future augmentation of resources, we could probably render a greater service by limiting our enrollment to some approximate number much less than the 1000 which we have at present and by increasing correspondingly the average calibre of the graduate student body by means of some system of selective admission.

*The total (absolute) number of students entering the graduate school from the several undergraduate colleges at Cornell has remained substantially constant, as is perhaps to be expected since the total undergraduate enrollment at Cornell has not changed materially during the past five years.

What that upper limit should be, or whether there should be any arbitrarily fixed upper limit, I am not now prepared to state. In some fields there is much overcrowding. In others, a somewhat larger number of students could without doubt be accommodated. For the present it would seem to be a matter of wisdom to urge each individual professor to scrutinize very carefully the qualifications of applicants for graduate work in his field and to accept only so many as he can adequately handle and as give promise of maintaining the high standards to which we aspire.

THE SPECIAL NEEDS OF PROFESSIONAL GROUPS

The present Graduate School was organized in 1909 upon the basic principle that the individual professor giving or offering graduate work should constitute the working unit for both scholastic and administrative purposes. Departments and colleges as such were not recognized. Groups were formed to bring together men in related fields for the discussion of problems of mutual interest. No greater tribute could be paid to the wisdom of this policy than to point to the splendid freedom and the enviable esprit-de-corps which characterize our graduate work at Cornell. We should give the most critical examination to any proposal or movement, however urgent, which might react unfavorably upon this cornerstone of our organization.

However, in looking toward the future we must keep in mind two important principles: first, we should not hesitate to make, after due deliberation, such changes in the organization of our graduate school as may from time to time be found necessary to increase the effectiveness of our work and to maintain or raise our standards. And second, we should, in so doing, leave to the individual just as much freedom as is consistent with the new requirements.

It is not to be expected that the type of organization most effective in 1909 should without revision continue most effective as new conditions arise. During the past two decades several important changes have taken place.

First, we have now over three times as many graduate students as in 1909; and there has been a corresponding increase in the diversity of work, as is reflected by the fact that the original five groups have increased to nine. Second, although we still maintain the group form of organization, the groups, with few exceptions, serve only the purpose of meeting once in three years to elect a representative on the General Committee. And third,—most important—the gradual development of graduate work in professional fields such as Law, Education and Engineering, seems to require a type of organization different from that contemplated under the Group system.

Accordingly, in 1927, there was formed a Law group, Group H, to be known as the Graduate School of Law and composed of the members of the Law Faculty and the chairmen of the departments of History, Philosophy, Economics and Government. Group H differs from the other groups in that (1), requirements for admission to candidacy for the advanced degrees in Law are determined by the group; and (2) the members of Group H, rather than special committees, direct the work of graduate students.

During the current year, the previously existing University Division of Education has been constituted a Graduate School of Education with power to administer the professional degrees in Education, Master of Arts in Education, and Master of Science in Education. Technically, Group I, Education, is still retained to provide for the non-professional degrees A.M. or Ph.D. with major in Education.

More recently, the members of the Graduate Faculty in the several fields of Engineering have taken under consideration the development of a plan for the more effective administration of work leading to the respective professional degrees M.M.E., M.C.E., and M.E.E. And it is probable that in the near future other similar proposals may be expected. Indeed, we seem now to be tending toward a dual type of organization according to which the professional degrees would be administered by a series of sub-Graduate Schools; and the remaining non-technical degrees, A.M., M.S., and Ph.D., by the Graduate School as a whole, as at present.

There are obvious advantages and disadvantages in such a development. It is to be encouraged in so far as it results in raising standards and in increased effectiveness of graduate instruction. But we must not allow our organization to become too complex and we must ever keep in mind the fact that no mere form of organization can make graduate work stronger than the individual professor giving it. It is of the utmost importance that his freedom of action must, within obvious limits, be safeguarded.

F. K. RICHTMYER,
Dean of the Graduate School.

STATISTICS OF ATTENDANCE OF GRADUATE STUDENTS

	1930-31	1929-30	1928-29	1927-28	1926-27
Number of students registered during the academic year.	1020	863	767	767	677
Number of students registered during the summer, as below.	685	612	518	475	414
Summer Sessions.	476	428	331	315	284
Personal Direction.	209	184	187	160	130

COMPARATIVE ENROLLMENT OF GRADUATE STUDENTS FOR FIVE-YEAR PERIODS

1901-02 189	1905-06 232	1910-11 372	1915-16 482	1920-21 438	1925-26 659	1930-31 1020
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CLASSIFICATION OF GRADUATE STUDENTS

Graduate students receiving degrees, classified
according to the degree received:

	1930-31	1929-30	1928-29	1927-28	1926-27
Doctors of Philosophy.	90	129	102	95	91
Master's degrees, as below.	200	174	175	185	134
Masters of Arts.	92	97	91	83	57
Masters of Arts in Education.	3	—	—	—	—
Masters of Science.	66	50	51	69	53
Masters of Science in Agriculture.	7	4	4	8	5
Masters of Science in Education.	5	0	0	0	0
Masters in Landscape Architecture.	0	0	0	0	1
Masters in Forestry.	3	5	6	2	6
Masters of Architecture.	3	0	1	2	4
Masters of Chemistry.	5	1	3	0	0
Masters of Civil Engineering.	11	9	7	12	4
Masters of Mechanical Engineering.	1	4	9	7	4
Masters of Electrical Engineering.	3	3	2	2	0
Masters of Fine Arts.	1	1	1	0	0
Total.	290	303	277	280	225

Graduate students classified according to the degree for which they are candidates:

	<i>Academic Year Summer</i>	
Doctors of Philosophy.	552	204
Master's degrees, as below.	384	395
Masters of Arts.	181	216
Masters of Science.	127	125
Masters of Science in Agriculture.	6	4
Masters of Forestry.	3	2

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Masters of Arts in Education.....	3	21
Masters of Science in Education.....	3	10
Masters of Architecture.....	2	1
Masters of Chemistry.....	5	8
Masters of Civil Engineering.....	24	8
Masters of Mechanical Engineering.....	16	0
Masters of Electrical Engineering.....	11	0
Masters of Fine Arts.....	1	0
Masters of Laws.....	2	0
Non-candidates:		
Resident Doctors.....	18	12
Others.....	66	74
Total.....	1020	685

Graduate Students classified according to the group
in which the major subject falls:

	1930-31	1929-30	1928-29	1927-28	1926-27
Group A, Languages and Literatures	137	118	125	108	98
Group B, History, Philosophy, and Political Science.....	165	148	187	212	155
Group C, Physical Sciences.....	211	217	169	161	140
Group D, Biological Sciences.....	200	180	155	157	166
Group E, Engineering, Architecture	71	61	63	54	54
Group F, Science Departments, New York City.....	3	4	4	1	3
Group G, Agricultural Sciences....	81	70	63	63	61
Group H, Law.....	2	2	1		
Group I, Education.....	66	63			

INSTITUTIONS FROM WHICH STUDENTS ENTERED THE GRADUATE SCHOOL

Aberdeen University.....	1	Clark University.....	5
Akron University.....	3	Clemson College.....	3
Alabama Polytechnic Institute....	1	Coe College.....	1
Albright College.....	1	Colgate University.....	5
Alfred University.....	3	College of Industrial Arts, Texas...	1
Allegheny College.....	4	College of the City of New York..	3
American University of Beirut....	1	College of the Pacific.....	1
Amherst College.....	4	College of Wooster.....	2
Asbury College.....	1	Colorado Agricultural College....	1
Barnard College.....	5	Colorado College.....	5
Berea College.....	1	Columbia University.....	8
Bethany College.....	1	Connecticut Agricultural College...	4
Bluffton College.....	1	Cooper Union Institute.....	3
Boston University.....	4	Cornell College.....	4
Bowdoin College.....	3	Cornell University.....	291
Brussels University.....	1	Dartmouth College.....	4
Bryn Mawr College.....	2	Davidson College.....	2
Bucknell University.....	7	DePauw University.....	11
Butler University.....	1	Dickinson College.....	3
California Institute of Technology..	2	Drake University.....	2
Carthage College.....	1	Duke University.....	3
Case School of Applied Science....	1	D'Youville College.....	1
Cedar Crest College.....	1	East Tennessee State Teachers Col- lege.....	1
Chalmers.....	1	Elmira College.....	1
Chekiang Institute of Technology..	1	Elon College.....	1
Citadel.....	2		

Escuela Nacional de Agricultura y Veterinaria, Lima, Peru	3	Mount Holyoke College	3
Florida State College for Women . .	1	Muhlenberg College	2
Fuh Tan University	5	Muskingum College	1
Fukien Christian College	1	Nanking Conservancy Engineering College	1
Galloway College	1	Nanking National Central University	3
Geisenheim University	1	Nebraska Wesleyan University . . .	3
George Peabody College	2	New Mexico A. and M. College . .	3
George Washington University . . .	1	New York State College for Teachers	5
Georgia State College for Women .	1	New York University	9
Goshen College	1	Niagara University	2
Goucher College	3	North Carolina A. and T. College .	2
Hamilton College	7	North Carolina State College . . .	3
Hampton Institute	1	North Central University, China . .	1
Harvard University	2	North Dakota State College	1
Hillsdale College	2	Northeastern University, China . .	1
Hiram College	1	Northwestern University	2
Hobart College	2	Oberlin College	20
Hongkong University	1	Ohio Northern University	1
Hope College	1	Ohio State University	8
Houghton College	1	Ohio Wesleyan University	5
Howard University	3	Oklahoma A. and M. College	4
Hunan Polytechnic Institute	1	Oklahoma Baptist University . . .	2
Hunter College	2	Oklahoma City University	1
Huron College	1	Ontario Agricultural College	5
Illinois Wesleyan University	1	Ontario Veterinary College	1
Indiana State Teacher's College . .	1	Oregon State Agricultural College .	1
Indiana University	3	Peking National University	2
International College, Smyrna . . .	1	Pennsylvania State College	20
Iowa State College	9	Pennsylvania State Teachers College, Slippery Rock, Pa.	1
Kansas State Agricultural College .	2	Pomona College	1
Keuka College	2	Prague University	1
Koenigsburg University	1	Prairie View State College, Texas .	1
Lake Erie College	1	Princeton University	2
Laval University	1	Purdue University	10
Lebanon Valley College	1	Queen's College	1
Lehigh University	2	Randolph-Macon College	3
Leland Stanford University	1	Rensselaer Polytechnic Institute . .	4
Lewis Institute	2	Rheinische-Friedrich-Wilhelms-University, Germany	1
Lincoln University	3	Rice Institute	2
Livingstone College	2	Richmond College	1
Macalester College	1	Robert College	1
McGill University	5	Rollins College	1
Marietta College	1	Royal Agricultural College of Norway	1
Maryville College	1	Russian Polytechnic Institute . . .	1
Massachusetts Agricultural College	4	Rutgers College	5
Massachusetts Institute of Technology	1	St. Andrew's University	1
Meiji University	1	St. Anselm's College	1
Melbourne University	1	St. John's University, Shanghai . .	1
Miami University	2	St. Lawrence University	1
Michigan State College	5	Senshin University, Japan	1
Middlebury College	2	Simmons College	1
Mills College	1	Skidmore College	1
Mississippi A. and M. College . . .	4	Smith College	4
Missouri Wesleyan College	1		
Montreal University	2		
Morehouse College	1		
Moscow University	1		

Soochow University	4	University of Notre Dame	2
South Carolina State College	1	University of Oregon	2
Southeastern University, China	1	University of Peking	2
Southern College	1	University of Pennsylvania	2
Southwest Missouri State Teachers College	1	University of the Philippines	3
Stanford University	1	University of Pittsburgh	3
Stellenbosch University	4	University of Porto Rico	2
Sul Ross State Teachers College, Texas	2	University of Posnan	1
Susquehanna University	1	University of Pretoria	1
Syracuse University	10	University of Reading	1
Tangshan Engineering College	2	University of Redlands	1
Tarkio College	2	University of Rochester	8
Temple University	2	University of Rome	1
Texas A. and M. College	1	University of Sorbonne	1
Texas Christian University	1	University of South Africa	1
Tokio Higher Technical School	1	University of South Dakota	1
Tokio University	1	University of Stuttgart	1
Tsing Hua University	2	University of Sweden	1
Tungshan University	1	University of Tennessee	4
Union College	3	University of Toronto	3
University of Arizona	1	University of Utah	3
University of Arkansas	3	University of Vermont	3
University of British Columbia	4	University of Virginia	2
University of Buffalo	3	University of Warsaw	2
University of California	12	University of Washington	1
University of Chicago	5	University of West Virginia	5
University of Chile	1	University of Western Ontario	2
University of Cincinnati	4	University of Wichita	2
University of Copenhagen	4	University of Wisconsin	12
University of Dayton	2	University of Wyoming	3
University of Delaware	2	Utah State Agricultural College	9
University of Denver	2	Vanderbilt University	1
University of Florida	1	Vassar College	5
University of Georgia	5	Virginia Polytechnic Institute	5
University of Göttingen	1	Wabash College	2
University of Hawaii	1	Wake Forest College	2
University of Illinois	17	Washburn College	2
University of Iowa	2	Washington and Jefferson College	1
University of Kansas	6	Washington State College	4
University of Kentucky	3	Washington University	1
University of Leipzig	1	Wellesley College	2
University of Liverpool	1	Wells College	3
University of Maine	8	Wesleyan University	2
University of Maryland	3	West Texas State Teachers College	2
University of Michigan	5	West Virginia State College	2
University of Milan	1	Western Reserve University	1
University of Minnesota	5	Wheaton College	1
University of Mississippi	1	Whitman College	2
University of Missouri	7	Wilberforce	1
University of Montana	4	William Smith College	3
University of Munich	1	Williams College	1
University of Nanking	8	Wilson College	2
University of Nanyang	3	Winthrop College	1
University of Nebraska	7	Wittenberg College	1
University of Nevada	1	Wofford College	2
University of New Hampshire	5	Yale University	1
University of New Orleans	1	Yenching University	2
University of North Carolina	4	Zagreb University	1

GEOGRAPHICAL DISTRIBUTION OF GRADUATE STUDENTS

Alabama..	4	Vermont..	3
Arkansas..	6	Virginia..	17
California..	18	Washington..	5
Colorado..	8	West Virginia..	11
Connecticut..	8	Wisconsin..	5
Delaware..	4	Wyoming..	3
District of Columbia..	6		
Florida..	7	Australia..	2
Georgia..	6	Belgium..	1
Idaho..	1	Brazil..	1
Illinois..	20	British West Indies..	1
Indiana..	25	Canada..	24
Iowa..	8	Chile..	1
Kansas..	6	China..	60
Kentucky..	7	Costa Rica..	3
Louisiana..	2	Denmark..	2
Maine..	5	Egypt..	1
Maryland..	4	England..	1
Massachusetts..	27	Germany..	2
Michigan..	7	Hawaiian Islands..	1
Minnesota..	8	India..	3
Mississippi..	3	Iraq..	1
Missouri..	13	Italy..	2
Montana..	5	Japan..	4
Nebraska..	5	Jugoslavia..	1
Nevada..	3	Korea..	1
New Hampshire..	3	Latvia..	1
New Jersey..	29	Norway..	3
New Mexico..	4	Panama..	2
New York..	416	Persia..	1
North Carolina..	19	Peru..	3
Ohio..	35	Philippine Islands..	3
Oklahoma..	4	Poland..	3
Oregon..	1	Porto Rico..	6
Pennsylvania..	58	Russia..	3
South Carolina..	9	Scotland..	2
South Dakota..	1	Siam..	1
Tennessee..	4	South Africa..	8
Texas..	12	Syria..	2
Utah..	12	Turkey..	3

APPENDIX III

REPORT OF THE DEAN OF THE COLLEGE OF
ARTS AND SCIENCES

To the President of the University :

SIR: I have the honor to submit the following report of the College of Arts and Sciences for the academic year, 1930-31.

Events of the past year which should be recorded in the history of the College are not numerous. The two that stand out are the abolition of the so-called honor system of examinations, and the appointment of a special committee of the faculty to revise our curriculum.

The first of these events has been foreshadowed in previous reports. The matter came to a head when a member of the faculty proposed that the honor system be abolished. This motion was duly referred to the joint committee of faculty and students which for the past four years has been charged to hear cases of fraud and to consider the general policy of the college with respect to examinations. This Committee was unanimous in agreeing that the time had come to replace the responsibility of examinations upon the faculty. There were at first differences of opinion between this Committee and the Committee on Educational Policy regarding the manner in which a new statement of policy should be framed. Agreement was finally reached, and, with the approval of both Committees, the faculty adopted the following statement of its views:

"1. Responsibility for the conduct of examinations rests with the faculty of this College, and it is as much the duty of each member of the instructing-staff to see that examinations in his courses are properly conducted as it is to see that any other part of his work is properly conducted.

"2. To hear and dispose of cases of dishonesty in courses in the College of Arts and Sciences there has been set up a tribunal composed of faculty- and student-members. The Committee consists of twelve members and the Dean as chairman; the six members of the faculty include the Secretary of the College, who is Secretary of the Committee, and five other members appointed by the Dean to serve for three years each in rotating groups of two, two and one; the student representation consists of one sophomore, two juniors and three seniors (one junior and one senior are women)."

In other words, the action provides for a continuance of the present means of adjudicating cases of fraud, but places the responsibility for conducting examinations, including supervision for the prevention of fraud and disorder, upon the instructor in charge of the course. It is to be hoped that hereafter rumors of undetected fraud will be less numerous, and that greater fairness will result from the full responsibility for examinations which the instructor now assumes.

The second event, touching a possible change of the college curriculum, was initiated by two members of the Advisory Board for Underclassmen. The Professor of English History, Professor Marcham, expressed the opinion that provision should be made for an enlargement of the major field of study, and for a greater concentration in that field, while the Chairman of the Board, Professor Freeman, expressed his concern for a sequence of courses in the major field, and for a greater responsibility on the part of the student's adviser in planning a sequential course of study with a wide latitude for appropriate electives.

After discussion in the Advisory Board the subject was introduced into the faculty, which, after a canvass of the departments regarding their attitude towards revision, referred the matter to its committee on Educational Policy. This committee then proposed, and the faculty approved, the appointment of a special committee to study and report upon the entire subject. This committee consists of the following members of the faculty: Professors Bishop, Caplan,

Cunningham, Freeman, Hebel, Homan, Hurwitz, Laubengayer, Marcham, Murdock, Wichelns, and Petry, Chairman.

Although the Committee has held frequent meetings, it has as yet made no report of its progress. It would be impertinent to anticipate its conclusions, but the occasion for the inquiry is not less worthy of comment.

During the recent past the position of the so-called liberal college has been persistently attacked from all sides. With the development of more and more specialized curricula in those colleges and universities which have for their aims vocational training of diverse kinds, it has become evident that the liberal college must justify its works, or lose its students to the vocational schools.

Already the Colleges of Engineering, Architecture, Agriculture, and Home Economics at Cornell are offering diversified courses which give training at the undergraduate level in a variety of more or less specialized callings. Ought the College of Arts and Sciences to follow suit, and break up its curriculum into courses for pre-legal and pre-medical students, for various business occupations, for journalism, and for teaching in its numerous branches?

We now have in the College a special course leading to a special degree in Chemistry. Aside from this our policy has been consistent in its opposition to vocational subjects as an appropriate part of our curriculum. Thus far our position has been maintained without difficulty. The candidates for the degree of Bachelor of Arts still form the largest single group of students in the University.

But while universities, like other human institutions, change their policies slowly, the attack upon the liberal college continues. Only the other day the President of one of the largest and most distinguished of our state universities published two syndicated newspaper articles on the subject. In the first, which is entitled "The Twilight of the College," Glenn Frank writes: "It is, I think, quite impossible to institutionalize the college of liberal arts, giving to it a set and specific program, and making it as distinctive in its offerings as are the professional schools. If it is to survive, it must become the least formal and the most flexible unit in our educational system. It must become, at best, a halting-place outside the doors of the professional school where, under the sympathetic direction of broad scholars who are willing to forgo the all-too-easily won distinctions of the specialist, students explore the modern world until their whole beings are magnetized towards some single enterprise or vocation of the modern world." In the second article, called "Better Professional Training," the following conclusion is reached: "The ancient walls that have long stood between culture and vocation are crumbling. I am glad to see them crumble; we shall always need institutions like the college of liberal arts as places of incubation for the "scholars" of the future; but the training of leaders for the social order, will, I think, belong to a new form of professional school that will undertake to do in one process what the college of liberal arts and the professional school have failed to do acting separately."

Although some of my colleagues might be inclined to dismiss these remarks as unworthy of consideration, I think that they contain a challenge which cannot be ignored. No one need seriously object to courses in vocational and professional training wherever the need is indicated and the possibility of such training as a sound and useful service is warranted. We, in this country, have, however, a way of making the need justify the means whereby it is satisfied, and it is not, I think, as yet demonstrated that the large variety of vocational ends are being adequately served by college courses of specialized preparation to do things, many of which cannot be done at all until the person being trained has left college and is "on the job." That liberal courses in economics, history, government, philosophy, psychology, and, indeed, languages, mathematics, and the sciences, could and should be integrated with a vocational training, is likewise unobjectionable in principle. But we who can see how such combinations work in practice know that so soon as "scholars" are replaced by President Frank's "broad scholars who are willing to forgo the all-too-easily won distinctions of the specialist," the student begins to waste his time in "the halting-place outside the doors of the professional school."

In the estimation of one's colleagues there are no such "broad scholars." Those who pass for such are at best facile speakers with superficial knowledge. They may be pleasant companions, and occasionally they are inspiring counselors. But no college or university of the land could man its faculty with persons of this type. Further, as one finds him in the flesh, this sympathetic, broad-minded inspirer of youth is more often a specialist than a person without such distinction. Wherever professors are found to possess the fine qualities of sympathy and knowledge which make them sound and valued teachers and friends of youth, they should be, and usually are, cherished; but these personal qualities cannot be guaranteed by any assignable course of training.

In the final analysis the standing of a college rests with its "scholars" both of the faculty and student body. The only definite thing that can be said of or for an institution of higher learning is that it is a body of "scholars." While scholarship is as broad as the whole field of human knowledge, it now rests, as it always has rested, upon those fundamental disciplines which the human mind has painfully worked out in its progress towards civilization. Philosophy, languages, mathematics, the social studies, and the experimental sciences, these supply us with the bases of all exact knowledge, and all applications of knowledge. Any attempt to remove the scholar in these fields from direct contact with the student of college age, or to replace him by a person of "broad" but inexact knowledge of these fields, can but lead to bankruptcy in any vocational training—any that is worthy of inclusion in the curriculum of an institution that professes the higher branches of learning.

The effects of selective admission to the College are being felt in many and gratifying ways. Although we now admit but 500 freshmen, we graduated during the past year 461 persons at the three periods when degrees are conferred. This means that our students are quite evenly distributed throughout the four-year course, and that an increasing proportion of those who enter proceed to graduation.

During the past year 101 students in all—approximately five per cent of the total enrollment—have been dropped from the rolls of the College for poor scholarship. Of this number only ten were upperclassmen. The relatively large "mortality" among the underclassmen, and especially the freshmen, is readily understood. Many of our first-year students find difficulty in adjusting themselves to college life, and to the different methods of study which a college requires. Still, I am somewhat concerned by the number of this class that continues in academic difficulty throughout the first year.

The Director of Admissions informs me that ninety-two per cent of last year's freshmen in Arts and Sciences were rated in the upper half of their secondary school graduating classes, full sixty per cent being in the upper fifth of their classes. Despite this good showing on entrance, there were 205 "doubtful cases" before the Advisory Board at the end of the first term, and 159 at the end of the second. The readmission of many who have been dropped for a term, and the removal from "probation" of many others who have made a poor start, account for the large number which, despite adverse beginnings and delay, nevertheless continue on to graduation. I am wondering, however, if our treatment of the freshman is in all ways as satisfactory as it might be. While I do not advocate lowering the standards of work, I am inclined to believe that the teaching of freshmen might in some respects be improved.

The problem is partly financial. At present a large part of the teaching of freshmen falls to the lot of young instructors who at the same time are graduate students. Many of these persons are able teachers, and their youth as such is no disqualifying factor. But, one also finds in certain youthful instructors an arrogance which is assumed as a cloak for ignorance of sound teaching methods, and even of sound knowledge of the subject.

While we never can expect to man all freshman courses with mature professors, we might induce a larger number of professors and assistant professors to assume responsibility for freshman sections. If the mature members of the faculty would study this problem in their several departments, and assume in some cases a larger responsibility for the supervision of freshman work, it might

be possible to save many students from a period of floundering which is sometimes longer than need be.

With the expansion of our courses in music and the acceptance of this subject by the faculty as an "upperclass group," we face the question of adding other "fine arts" to this category. Already, under the auspices of the Department of Public Speaking, we have developed dramatic production into a major field of work for graduate students. The courses offered in this field can readily be supplemented with those of related subjects to constitute an undergraduate "major."

In the College of Architecture there have also developed courses in the history of art and architecture, drawing, painting, modeling, and design which are especially suited to the students of this College.

If the faculty so desires, we could now offer "majors" to "Arts students" in dramatics and the representative arts, in addition to music which is already authorized. The College of Architecture has indicated its desire to co-operate in such a project, and the matter has already been broached to the Committee on Educational Policy of this College.

If we venture upon such a program we must make sure that these new major fields of study are in keeping with the purposes of a liberal college. Already we have a well-developed undergraduate course in the Fine Arts administered by the College of Architecture. It should not be our desire to compete with it. Neither do we wish to develop courses of professional or semi-professional training in music and dramatics within the scope of the Arts program. If ever such training in these fields is desired, I believe it should be conducted under other auspices; for instance, in a special college of Fine Arts.

On the other hand, it seems to me desirable that we should promptly consider the adoption of properly safeguarded curricula in which the major interest of certain of our students in the fine arts can be recognized as a part of the course leading to the A.B. degree.

The reports from the various departments of instruction raise a number of minor problems which will be taken up in due course through the faculty and with yourself.

The standing committees of the faculty have rendered able service during the past year. I take this opportunity to commend the faithful and intelligent service of Professor F. S. Freeman, who now retires from the Chairmanship of the Advisory Board for Underclassmen after the usual three-year period. As his successor, Professor J. L. Woodward, a continuing member of the Board, has consented to serve as Chairman for the ensuing year.

R. M. OGDEN,
Dean of the College of Arts and Sciences.

APPENDIX IV

REPORT OF THE DEAN OF THE LAW SCHOOL

To the President of the University:

SIR: I have the honor to submit the following report concerning the Cornell Law School for the academic year 1930-31.

During the second term of 1929-30 and during the ensuing summer I was in Europe on leave, and during the summer term I was in residence at Oxford, having been made an associate member of All Souls College for that period. Professor Stevens was acting Dean during my absence, and carried on the work of this office most successfully and to the complete satisfaction of all of his associates on the faculty.

Professor Stevens in his report as Acting Dean last year noted the prospective return of Assistant Professor William H. Farnham from his year's leave of absence for graduate work at Harvard Law School, where he held the Thayer Teaching Fellowship, and where he was awarded the J. S. D. degree, and his appointment to a professorship in the Cornell Law School beginning with the academic year 1930-31. He also reported the appointment of Mr. John W. MacDonald as Assistant Professor in the Law School. This latter appointment increased our faculty personnel to ten, and has made possible some enlargement of our informal work, and a slightly greater degree of specialization and increased opportunity for productive scholarship on the part of faculty members. The additions made to the faculty of the Law School during the past few years have been most encouraging, and have created at Cornell a strong and well-balanced group of teachers and scholars in the field of law. Further expansion of faculty personnel is still very necessary, however, if we are to continue and further develop the individualized work with students which is so important; if we are to cover adequately the fields of legal history, international law and relations and comparative law; and if members of the faculty are to be able to respond to demands made upon them for participation in important projects for the development and reform of the law, and to do the writing which they are all desirous of doing.

Last year Acting Dean Stevens reported the work being done by members of the faculty in connection with the American Law Institute, the Commissioners on Uniform State Laws, and the Harvard Research in International Law. The participation by our faculty in these projects continues. Professor Thompson has had the principal part in bringing out a volume of selected articles in the field of Contracts under the auspices of the Association of American Law Schools, and he and Assistant Professor MacDonald have rendered valuable service in the drafting of the new Ithaca City Court Act. Also I have just been appointed by Governor Roosevelt a member of the New York Commission to investigate the administration of justice in New York State, and upon the organization of that Commission I was placed on its executive committee.

I should like particularly to acknowledge the generosity of the Heckscher Council, which by annual grants has made possible a thorough comparative study of the American Law Institute's Restatement of the Law of Contracts, and the law of contracts of New York State, which Professor Whiteside is making. This study should be completed next year. It has been the model for all such studies in this and other states, and has received high praise. It has been published in installments which have appeared as supplements to the Cornell Law Quarterly.

Myron Taylor Hall has been under construction during the whole of the present academic year. Naturally details with regard to it have occupied much of my time, and have called for frequent conferences between representatives of the faculty, the architect, the interior decorator, and the chairman of the Trustees' Committee on Buildings and Grounds. Everything has progressed satisfactorily, and the construction is well forward at the present time. The building will of course not be ready for occupancy at the beginning of the next academic year, but will be completed some time during that period. Offices have been assigned, furniture has been selected, and plans for moving the library are being perfected.

Naturally all of the staff look forward with keen interest and pleasure to life and work in so beautiful and adequate a building.

Under the direction of a committee on academic policy the entire faculty of the Law School has been engaged during the past year in an unhurried but thorough study of certain problems of legal education. After very careful consideration the faculty have decided to introduce a comprehensive examination at the end of the course in law. The examinations in separate subjects will be retained in the first and second years, but will not be given in the third year. The comprehensive examination will cover the work of the entire course in law and will consist of three parts: (a) written examinations; (b) oral examinations; (c) problems to be worked out in the library. It is hoped in this way to test the student's general legal education and his capacity for handling real legal problems; to minimize the importance of the division of the law into subjects which is necessary for teaching purposes; to induce in our students a feeling of the unity of the law; and to encourage, particularly in the last year, independent work, not undertaken in order to obtain particular credit hours, but for the purpose of a broad legal training.

Upon the request of the Law Faculty and with the approval of the Committee on Calendar of the University Faculty, the Board of Trustees approved a separate calendar for the Law School for the academic year 1931-32 which provides for the commencement of registration on September 19th, and for the last examination on June 2nd, but which retains the statutory number of days of instruction, and the Thanksgiving, Christmas, and Spring recesses. This change is made particularly desirable by the fact that the principal Bar Examination of the year in New York State is held the latter part of June.

For a number of years we have conducted an eleven weeks' summer session in law at Cornell. This was instituted with the purpose in view of permitting students to shorten their period of study by use of summer sessions, and to this end students were allowed to commence the study of law in the summer; to give opportunity for students to enrich their curricula by summer courses; to bring visitors from other law schools to our faculty; and to give an opportunity to members of our own faculty to teach in the summer. The Law Faculty have come to the conclusion that it is undesirable for students to commence the study of law in the summer, because this upsets their curricula in the regular terms, and that a student who hurries his graduation by studying continually winter and summer is likely to go stale. Only a few of our own faculty show a desire to teach in the summer. The Faculty, therefore, requested that the Summer Session of 1932 be restricted to six weeks, and this was approved by the Board of Trustees. The period will provide opportunity for a number of visitors to our faculty, and for the presentation of an interesting group of courses for students who desire or who need extra work.

For next year three tuition scholarships have become available from funds left to the University by the late Col. Henry W. Sackett, and two scholarships of the value of \$250 each have been created for law students by funds left by John James VanNostrand. A number of annual scholarships are provided under the auspices of the Cornell Law Association, and ten tuition scholarships have been provided by action of the Board of Trustees. All of these have done much to help the situation of students with limited funds, especially during these hard times. It has been possible to render further aid through the revolving Law Association Loan Fund, which has reached a total of some \$2,000.

The annual Moot Court work of the First Year Class directed by Professor Farnham came to a successful conclusion with the final argument before a court composed of Judge Irving G. Hubbs of the New York Court of Appeals, who presided, and Justices James P. Hill and Ernest I. Edgcomb of the New York Supreme Court, Appellate Division. Professor Harold J. Laski of the London School of Economics delivered the annual address on the Frank Irvine Foundation. Other lecturers in the Law School during the year were Allan Treman, '24 of Ithaca, Arthur Dean, '23 of New York City, Thomas F. Fanning of Buffalo, Walter Fairchild of New York City, George R. Grant, General Attorney for the New England Telephone Company, and Archibald R. Watson, Esq., of New York City.

In June 1930 the Boardman Scholarship for the best work during the preceding four terms was awarded to Ernest Neal Warren. For the academic year 1930-31 the first and second Fraser Scholarships were awarded by vote of the Third Year Class to Morris Glushien and Edward Henry Stiefel respectively. The W. D. P. Carey Exhibition was won by Lathrop Dennison Marsland. The following students were elected to the Order of the Coif, honorary legal society: Mortimer S. Edelstein, Edward H. Stiefel, and Ernest N. Warren.

Following is the roster of the faculty in the 1930 Summer Session in Law, and the courses taught:

William Hursh Farnham, A.B., LL.B., Cornell; S.J.D., Harvard; Professor of Law in the Cornell Law School,—Property 1a.

George William Gray, LL.B., Syracuse; Professor of Law in Syracuse University,—Wills.

Ira Polk Hildebrand, A.B., LL.B., LL.M., University of Texas; LL.B., Harvard; Dean of the University of Texas School of Law,—Contract.

Evans Holbrook, A.B., Leland Stanford; LL.B., University of Michigan; Professor of Law in the University of Michigan,—Bankruptcy.

William Edward McCurdy, A.B., LL.B., S.J.D., Harvard; Professor of Law in the Harvard Law School,—Domestic Relations.

Joseph Warren Madden, A.B., University of Illinois; J. D., University of Chicago; Professor of Law in the University of Pittsburgh School of Law,—Property II.

Calvert Magruder, A.B., M.A., St. Johns College; LL.B., Harvard; Professor of Law in the Harvard Law School,—Partnership.

William Foster Reeve, III, Litt.B., Princeton; LL.B., University of Pennsylvania; Professor of Law in the University of Pennsylvania Law School,—Trusts.

Gustavus Hill Robinson, A.B., LL.B., S.J.D., Harvard; Professor of Law in the Cornell Law School,—International Law.

Frank Smithies Rowley, A.B., LL.B., LL.M., George Washington University; Professor of Law in the University of Cincinnati Law School,—Mortgages.

Harold E. Verrall, B.A., State University of Iowa; M.A., LL.B., University of Minnesota; Assistant Professor of Law in the Cornell Law School,—Property-1a.

Horace Eugene Whiteside, A.B., University of Chicago; LL.B., Cornell; S.J.D., Harvard; Professor of Law in the Cornell Law School,—Sales.

Lyman P. Wilson, B.S., LL.D., Knox; J.D., University of Chicago; Professor of Law in the Cornell Law School,—Evidence.

Mr. Lewis W. Morse, who graduated from Colgate University, and received his LL.B. degree from Cornell in 1928, has been appointed Assistant Law Librarian, commencing with the next academic year. This addition to the library staff has been much needed, especially in view of the impending move to Myron Taylor Hall. Mr. Myron C. Taylor has generously made a gift to the University to make possible the acquisition by the Law Library of all of the publications of the League of Nations, and their cataloguing and binding. By means of a competition arranged by the faculty of the College of Architecture an appropriate book-plate has been provided for this collection. 1670 volumes have been added to the library during the past year, of which 200 were gifts. 150 volumes were added to the Bennett Collection of Statute Law. During the year 446 volumes were bound or repaired.

The total registration throughout the past three years in the regular sessions of the Law School has been as follows:

	1928-29	1929-30	1930-31
Third Year.....	38	56	48
Second Year.....	59	49	61
First Year.....	99	108	71
Specials.....	2	0	2
Total Law Students.....	198	213	182
Students in other Departments electing Law.....	7	6	—
Total receiving instruction in the Law School....	205	219	182

Of the total of first year students those also registered as seniors in the College of Arts and Sciences numbered 60 in 1928-29, 68 in 1929-30 and 39 in 1930-31. Of the students registered in the Law School 30% lived outside of New York State in 1928-29, 35% in 1929-30, and 34% in 1930-31. 37 Colleges and Universities are represented in the student body and the students in the Law School come from 21 states and 3 foreign countries. Enrollment in the last three Summer Sessions in Law has been as follows: 1928-120, 1929-95, 1930-99. Between June 1, 1930 and June 1, 1931, 50 students were recommended for the degree LL.B., and have had that degree conferred upon them by the Trustees. Five students, Morris Glushein, Irving I. Plotkin, Ralph D. Ray, Edward H. Stiefel, and Ernest N. Warren, were awarded degrees with honors. Between June 1, 1930 and June 1, 1931, 37 students were dropped from the Law School, 90 placed on probation, and 9 advised to withdraw.

CHARLES K. BURDICK,
Dean of the Law School.

APPENDIX V

REPORT OF THE DIRECTOR OF THE MEDICAL COLLEGE

To the President of the University:

SIR: I have the honor of presenting the following report on the Medical College for the year 1930-31.

The activities of the past year group themselves naturally into those concerned with the routine work of the College and those which have to do with the developments of the New York Hospital-Cornell Medical College Association. It has been necessary to conduct these two groups of activities separately, as questions of future policies and of appointments could not be submitted to the present Committee on Educational Policy nor to the present Faculty, as they do not represent the future organization. An attempt has been made, however, to keep the Committee and the Faculty informed of the progress that has been made in the reorganization of the College and to have them understand that certain members of the Faculty are participating in the formulation of future plans. The formation of the Committee on Development to make recommendations through the Director to the Joint Administrative Board of the Association has proved a very helpful method of procedure.

The Medical College in its present status has had a comparatively uneventful year, as it has been the policy of the administration to conserve its equilibrium and to conduct its affairs with as little change and disturbance of traditional procedures as possible. Care has been exercised to preserve the morale of the teaching staff, and this has apparently been accomplished, as the activities of the College have been affected in no sense unfavorably by the impending changes. Full reports have been received from the heads of all departments. They indicate that the teaching and research activities of each department have been carried on successfully. These reports have been carefully considered. They do not call for detailed comments here.

During the past year there were two hundred and sixteen students in the Medical College in New York and twenty-one in the Ithaca division. There has been a steady improvement in the quality of the students admitted to the College during the past few years, and in several of the departmental reports the excellence of the first year class has been mentioned. Applicants for admission are coming from more widely distributed institutions year by year, and there has been a distinct increase in the number of applicants from the more important Universities, where presumably students are best prepared for the study of medicine. The difficult task of selecting students from the very large number of applicants has been ably performed by the Committee on Admissions.

The financial depression has been reflected in the difficulties which a larger number of students have in meeting the payments required for the study of medicine, and focuses attention on the desirability of increased means of student aid. The old custom of granting free tuition to a selected number of superior students in the form of scholarships has been largely discontinued, as there are no funds from which these tuitions are paid. The large number of applicants renders it no longer necessary to use this means to attract students, and only in exceptional cases have such scholarships been recommended to the Council and granted during the past few years. The recent establishment of the Thorne Shaw Scholarships and the Mary F. Hall Scholarship for a woman student have been welcomed by the Faculty. There are also several small loan funds for students. The establishment of other loan funds and of more scholarships is distinctly desirable, and an effort should also be made to obtain funds for fellowships for the support of promising graduates in medicine who desire to enter upon academic careers in medicine, especially in the medical sciences. A few scholarships granted on a competitive basis to students desiring to enter the Medical College should serve to attract superior students to the College.

In order to promote interest in the matter of scholarships and student aid, and to give consideration to the awarding of scholarships, a new standing committee has been formed which includes the Chairman of the Committee on Admissions.

By action of the faculty at its meeting in March, a Committee on Promotion and Graduation was formed with the object of having the work of the students reviewed several times during the year. This Committee is composed of the principal teachers of the first and second year students meeting as one section, and those of the third and fourth year students as another section. It is planned to have these sections of the Committee discuss the work of each student at the end of each trimester, to warn those whose work should be improved and to establish a better group consciousness of the individual merits of the students.

The appointment of Dr. William S. Ladd as Associate Dean should mark an improvement in the administration of the College. He takes up his work with the beginning of the next academic year, and it is planned to have him carry much of the work related to the teaching activities and college organization. It is hoped that Dr. Ladd will relieve the Director of many of the details he now carries. Dr. Ladd has been connected with the College of Physicians and Surgeons of Columbia University, with the Johns Hopkins Medical School, and with the Harvard Medical School, so that he has had a fairly wide experience with medical education. The field of administration is new to him, however.

On the recommendation of the Professor of Psychiatry, Dr. Russell, Dr. Isaac J. Furman, Medical Superintendent of the Manhattan State Hospital, Wards' Island, has been appointed Professor of Clinical Psychiatry. This appointment is significant as it forms an attachment to a great State institution which should prove of value especially in the future developments of psychiatry.

During the year, Dr. George B. McAuliffe resigned as Assistant Professor of Clinical Surgery, Department of Otolaryngology, and Acting Head of the Department of Otolaryngology. His position was filled by Dr. Gervais W. McAuliffe, who now holds the same title.

Dr. Joseph P. Hogue has resigned as Assistant Professor of Clinical Surgery, following an accident in which he lost an arm.

The Medical College lost through the death of Dr. Harold E. Santee a valuable teacher and able director of the Second Surgical Division of Bellevue Hospital. His place has been filled by Dr. Guilford S. Dudley.

The Cornell Clinic has been successfully operated during the year under the direction of Dr. Klotz. In spite of a rather large deficit at the close of the summer months, the financial situation has improved during the winter and under the guidance of the Finance Committee, headed by Dr. Elser, now appears to be satisfactory. The deficit has been absorbed and there is every prospect that there will be a small surplus at the close of the present fiscal year. The Clinic has been used more extensively for teaching than in previous years. There appears to have been a distinct lessening of hostility of the medical profession during the past

year. Dr. Klotz has served as a member of the Committee on Dispensaries of the New York County Medical Society, and this Society has shown a more cooperative spirit toward the Clinic than in years gone by.

During the past year, much has been accomplished in preparation for the future of the Medical College when it becomes organically associated with the New York Hospital. The appointment of four members of the present faculty as heads of future departments has made them available for cooperation in the reorganization of the Faculty and in planning for the future. They have been formed into the Committee on Development mentioned above, and have met regularly with the Director every two weeks throughout the College year. This Committee has continued to discuss and consider future educational policies and has drawn up for consideration a curriculum for the future. It has also given careful thought to the selection of new professors to fill the vacancies that are to occur because of the retirement on account of age of several present departmental heads. Newly appointed heads of departments have met with the Committee whenever they have been available.

Up to the present time, six new departmental heads have been selected and appointed to fill the chairs of obstetrics and gynecology, surgery, pathology, bacteriology and immunology, physiology, and psychiatry. There remain two other major departments of the Medical College to be reorganized, those of pharmacology and of public health. It seems wise to defer the reorganization of these departments, and plans have been worked out so that these departments may carry on under their present heads but with no obstruction to reorganization in the future.

The new department of applied pathology and bacteriology, to be headed by Dr. Elser, has been planned by him but no recommendations of appointments have as yet been made.

The appointment of the future heads of departments previous to this time has proved of great value in regard to the planning of the new plant. Each appointee has had an opportunity of studying that part of the plant he is to occupy and many desirable changes have been made in the plans at a time when they could be effected with little or no addition to the cost of construction.

The new buildings are now advanced to a state where the interior arrangements can be actually seen, and all those who have cooperated in the planning believe that the buildings are to afford facilities for work quite comparable with the architectural treatment of the building as a whole.

It is a true gratification to feel that the great task of inaugurating the work of the New York Hospital-Cornell Medical College Association is now being undertaken by a group of enthusiastic professional medical teachers in whose hands the future of the undertaking should be safe. The Director has come to a point where the manifold problems and tasks must be subdivided and delegated to specialists in the many fields of operation. All who have recently joined in this work are greatly stimulated by the unusual opportunities that lie before us. All have a desire to establish and maintain the new College on as high an intellectual and spiritual plane as possible. It is believed that with a relatively small undergraduate student body the extensive facilities of the new plant can be made of great and permanent value in the training of a selected group of advanced students which should bring forward new leaders in medical practice and in medical science. It is with such conceptions that the developments for the future are progressing.

G. CANBY ROBINSON,

Director of the New York Hospital-
Cornell Medical College Association.

APPENDIX VI

REPORT OF THE SECRETARY OF THE ITHACA
DIVISION OF THE MEDICAL COLLEGE

To the President of the University:

SIR: I have the honor to submit herewith the report of the Ithaca Division of the Medical College for the academic year 1930-31.

The reports from the various departments show a continuation of the steady growth and improvement which has been characteristic of the College for some years.

The Faculty is now composed of three departments, Anatomy, Histology and Embryology, Physiology and Biochemistry. The last of these is made up of two divisions, essentially independent, and for most purposes could well be divided into two separate departments. The Staffs of the Departments of Anatomy, of Histology and Embryology, and of the Division of Physiology in the Department of Physiology and Biochemistry each consists of one professor, one assistant professor and a number of instructors and assistants which varies each year, depending upon the number of students and the training and experience of the teachers. In the Division of Biochemistry in the Department of Physiology and Biochemistry, there is no Assistant Professor. In each department it has been the policy for many years to take as assistants, young men and women who have had elementary training in the work of the department and who desire to go on as Graduate Students to prepare themselves for teaching and research in their respective subjects. While these assistants are not very useful in their first year, their usefulness and competency increases year by year. When they remain in a department three, four or five years, they are gradually advanced to higher grade and better paid positions. Furthermore through this method, while it has been an added burden to the older and more permanent men in the department, Cornell University has been able to supply many trained teachers and investigators that are sorely needed in those branches of the biological sciences that are represented in the medical college. This matter of the training of men and women for teaching and research is only to a slight extent dependent on facilities. The character and inclination of the teachers is a far more important factor. Certain teachers fulfill their obligations to the University in routine courses and add to the luster of the institution by their own individual investigation but attract and train few advanced students and research workers. Others may not turn out so much individual research, but they are natural trainers of new teachers and investigators. Both types are important, the first belongs especially to research institutes, the second to Universities, and we at Ithaca have been most fortunate in that so large a proportion of our medical faculty have been trainers of men as well as themselves investigators.

The method of selecting the students for the medical college has continued as in past years. I can not see that longer experience has made the Committee on Admission any wiser in selecting students of outstanding ability. No basis of selection has so far been devised which is not subject to much criticism. There is no question, however, but that the selective method, especially in recent years where the numbers from which the selection may be made is so large, yields, much better results than the former practice of accepting all who could satisfy the entrance requirements. The number of failures and withdrawals at present is very few. There were only 21 students in the first year of medicine at Ithaca this year. The reasons for there being less than 25 were varied. The number accepted exceeded our quota, but our selection was made rather late and a number of the students approved for admission had already been accepted by other institutions and so withdrew from Cornell. For this reason, the date of selection was somewhat advanced this year for both divisions of the College. Of the 21 students accepted at Ithaca, 9 were college graduates, and 12 were seniors in the College of Arts and Sciences at Cornell University. Two of the class were women. One

student was forced to withdraw after the Christmas vacation because of illness and one was dropped in June for failure to do satisfactory work. Two or three other students will not be able to continue at Cornell next year for lack of financial resources. This emphasizes the need for more scholarships or loan funds for the medical students.

In the Department of Anatomy, the work of the year has been quite normal with no essential changes in the courses. The collection of special material is steadily growing and furnishes valuable specimens for teaching and research. Accessions to the Wilder Brain Collection are increasing each year. In order that Dr. Pápez may better study these brains of educated people, it will be necessary that special help should be provided, a technician is also needed.

There were 260 course registrations in Anatomy. Of these 117 were from the College of Arts and Sciences, College of Agriculture, College of Home Economics, and the Graduate School. There were 12 graduate students, 5 registered for majors and 7 for minors.

In the Department of Histology and Embryology the work has been most satisfactory in spite of 100 more registrations than last year and 3 new assistants replacing trained instructors who have gone elsewhere. These new men have done excellent work under trying conditions in a new laboratory and give promise of becoming strong and devoted members of the department. Nevertheless, because of the new members of the staff and the greater number of students, the year has been one of unusual difficulty for the senior members of the department. The instruction of the medical students was under the direct supervision of Dr. Adelman and was as usual thorough and enthusiastic.

This department has been for years one of the outstanding departments of Histology and Embryology both in this country and abroad. The eminence of the head of the department, Dr. B. F. Kingsbury, the high character of the undergraduate teaching, the breadth and inspiration of the graduate work, the number and reputation attained by the research workers trained here, the soundness of the published investigations, are all well recognized.

There were 440 course registrations this year. This was 108 more than last year. There were this year, 23 graduate students taking work in the department, of these 11 were registered as majors, and 12 as minors.

This department needs more high grade, better paid instructors, more clerical and unskilled help, and better provision for experimental animals.

In the Division of Physiology of the Department of Physiology and Biochemistry, Dr. Liddell reports that teaching and research have progressed satisfactorily along the lines set forth in the previous reports. In the beginning course in Human Physiology given by Dr. Dye, for students not primarily interested in Animal Biology, the enrollment this year was 394 students. This and the course in General Physiology are followed by an advanced group of integrated courses preparatory to graduate work in Animal Biology and Medicine. The research in the department has been active and well distributed. In addition to the staff of instruction and the graduate students there has been one fellow of the National Research Council, and another from the American Otological Association.

The Physiology Field Station has continued as a valuable addition to the department. The research carried on here and important results obtained would have been impossible without the station. It has also rendered an important service for the housing of experimental animals used for teaching purposes.

In the Division of Biochemistry in the Department of Physiology and Biochemistry, Professor Sumner reports that the work has progressed normally and satisfactorily. Dr. David B. Hand has been on leave of absence working in Germany on a National Research Council fellowship and Mr. Kirk has most acceptably filled the position. In the second term the laboratory was filled to capacity with medical students and graduate students. There were 153 course registrations in the department. Of these 19 were medical students, and 134 were Arts, Home Economics, Agricultural, and Graduate students. There were 28 graduate students registered for work in the department, of whom 3 were for majors and 25 for minors. The departmental research has been active and satisfactory. It has been mainly with crystallization of enzymes and the development of an anti-enzyme.

Dr. Sumner who was the first person to obtain an enzyme in pure crystalline form when he produced crystalline urease and later confirmed the work of others by obtaining crystalline pepsin, has now, working with his assistant, J. S. Kirk, produced a substance which when injected into animals will counteract the poisonous effects of urease. This work on anti-urease is very clearcut and definite. This is an important discovery and would appear to place the study of immunity upon a definite chemical basis.

During the year there have been 6 lectures on the Schiff Foundation furthered by the Medical College group. The lectures were of general interest to the biologists of the University and were very well attended. The lecturers were:—

Dr. G. Canby Robinson, Director of the New York Hospital and Cornell University Medical College.

Dr. C. R. Stockard, Professor of Anatomy, Cornell University Medical College.

Dr. Ross G. Harrison, Sterling Professor of Biology at Yale University.

Dr. John F. Fulton, Professor of Physiology, Yale University, School of Medicine.

Dr. George L. Streeter, Director of the Department of Embryology, Carnegie Institute of Washington.

Dr. Joannes G. Dusser de Barenne, formerly of the University of Utrecht, Sterling Professor of Physiology in Yale University.

While research in all departments of the Medical College as been fostered from time to time by grants from the Heckscher Research Fund, each department has placed main reliance for funds for research on the grants from the Sarah Manning Sage Research Fund. At the entrance of Stimson Hall a bronze plaque states:—

"By the will of Sarah Manning Sage, widow of Dean Sage, there was bequeathed to Cornell University the sum of \$50,000 the income or in the discretion of the University, the principal also to be used to promote the advancement of Medical Science by the prosecution of research at Ithaca by the Ithaca Division of the Cornell University Medical College in connection with any and all of the subjects at any time embraced in the curriculum of the Cornell University Medical College."

Since the bequest \$5000 of accrued interest has been added to the principal. The fund is administered by a committee composed of the President of the University and the heads of the departments concerned, at present Anatomy, Histology and Embryology, Physiology and Biochemistry, and Embryology Research. A minimum sum is allotted by the committee to each department yearly and the remainder of the sum is set aside for grants to meet special needs.

Reprints of the published papers based upon the research work coming from the laboratories of the Medical College in Stimson Hall have been collected and bound. These make 7 large volumes, a very creditable showing considering the small number of workers and their heavy teaching programs. A set of these has been deposited in the Van Cleef Memorial Library, another in the Library of the Cornell University Medical College in New York, and a third in the Flower Library of the Veterinary College.

The income from another fund became available this year, since the will of the late Colonel Henry W. Sackett states:—

"I will give and bequeath to Cornell University the sum of \$12,000 to be set aside as a fund in memory of my deceased father Dr. Solon P. Sackett, who was for many years a leading physician practicing his profession in the city of Ithaca, the income only of said fund to be used for such purposes, in connection with the work of the Faculty of Medicine at Ithaca of the Cornell Medical College as shall be determined upon by the Board of Trustees upon the recommendation of the President of the University."

President Farrand requested the Medical Faculty at Ithaca to consider the best way of expending the fund.

The plan recommended which was approved by the President provides that the yearly income of the Solon P. Sackett Memorial Fund shall be administered by a Committee composed of the President of the University and the heads of the

departments of the Medical College that will participate in the fund and that the income shall be assigned for research purposes by this Committee upon application of any of the departments concerned. The recipient is to report annually on the research carried on by it and the expenses incidental thereto.

The laboratories and lecture rooms of Stimson Hall are being used to full capacity and a search in every available corner is being made for more room. Although given and designed primarily for the use of the Medical College at Ithaca, the departments giving the instruction to first year medical students have attracted so many undergraduates and graduate students from other colleges, that the major use of the building is not medical.

The library of the Medical College at Ithaca was endowed more than ten years ago by a gift of \$10,000 from Mr. Mynderse Van Cleef. He had previously given to the college the library of his brother, Dr. Charles E. Van Cleef, B. S. '71, who had been a practitioner of Ithaca. Since then Mr. Van Cleef has steadily added to this endowment fund until it has reached the sum of \$25,000. Without the income from this fund, there would be many serious breaks in important biological works and periodicals needed by investigators both in Stimson Hall and elsewhere on the Campus. The library is extensively used by research workers and is also a great aid to the undergraduates. To make the library more accessible to the students, the books most in demand are kept in the College Office where they are more easily issued for reading room use. There have been 216 new books and periodicals added to the library this year. This makes a total of over 4,000 books in the Van Cleef Library.

In closing I wish again to pay tribute to my colleagues in Stimson Hall; the spirit of cooperation and mutual helpfulness which has pervaded this group has been a constant source of satisfaction.

ABRAM T. KERR,

Secretary of the Ithaca Division of the Medical College

APPENDIX VII

REPORT OF THE ADMINISTRATIVE COMMITTEE OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR: We have the honor to submit a report covering the work of the New York State Veterinary College for the academic year 1930-31.

The college has suffered severe loss in the death of its Dean, Doctor Pierre A. Fish and its Dean Emeritus, Doctor V. A. Moore. The discerning guidance of these men has built the college on a sound basis from within, enabling it steadily to expand its sphere of usefulness, and to claim an increasing measure of public confidence. The retirement of Doctor Frank H. Miller, University Trustee, whose understanding and support of the work of the college are well known, has withdrawn another sustaining force at a time when the loss is keenly felt.

There have been a few changes within the faculty. Doctor A. Zeissig, Assistant Professor of Bacteriology, who has been studying at Heidelberg during the past year, will return to duty in the fall. Doctor W. T. Miller, his substitute, recently has resigned. Doctor E. C. Baxter, Assistant in the Department of Materia Medica and Small Animal Clinic, Doctor Clifford Milks of the Experiment Station Staff, and Mrs. William M. Thomson, instructor in bacteriology, also have resigned. Doctor H. S. Cameron will replace Doctor Milks, who still will be associated with the Experiment Station as cooperative agent of the Federal Bureau of Animal Industry, and Doctor Paul Marvin has been appointed to fill the vacancy created by Mrs. Thomson's resignation.

The original charter of the Veterinary College designated as its major functions teaching, research, and the preparation of Veterinary biologists. A combination of circumstances has operated to direct an increasing share of our resources toward teaching and research. The exceedingly rapid expansion of exact knowledge regarding animal diseases has taxed the capacity of teachers to absorb, classify, and select for purposes of instruction. Need for extensive researches covering especially destructive diseases has claimed most of the remaining time and funds. On the other hand, the rapid development and effective official supervision of private biologic laboratories have relieved the Veterinary College of most of its responsibility for routine biologic production.

The usual teaching routine has been followed and customary reciprocity with respect to courses between the Veterinary College and other colleges has been observed. In their very nature Veterinary courses are difficult to present. Data regarding hours and numbers of students are not an accurate measure of the time and effort expended by the instructor, nor of the effectiveness of his teaching. Clinics, laboratory exercises or practicums are a part of most veterinary courses, and the task of preparing for them, because of the nature of the material required, is one which claims much thought and effort. In every department the teaching load has been placed on the more experienced men, and this has included clinics and laboratories. Increasing registration is presenting new and acute difficulties. The pinch is felt particularly in the Department of Pathology and Bacteriology where lack of room limits the size of laboratory sections, and in the Departments of Anatomy and Physiology which are first to feel the impact of the heavier registration.

A feature of instruction which deserves mention because of its growing importance is the use of the Veterinary library. Approximate figures show that it now receives 150 periodicals and that it contains 10,000 volumes, an increase of 3000 since 1924. Two thousand books were loaned for home use in 1931, an increase of 800 since 1926. The reading room attendance was 4700 in 1931, an increase of 700 in one year. These figures indicate the increasing use of the library as part of instruction.

The clinics have handled the usual number of cases in the usual efficient manner. For the small animal clinic this means that all available space is occupied and that the men who handle the cases have carried a heavy load all the year; for the ambulatory clinic it means that a standard, universally recognized as being among the highest, has been maintained; for the surgical clinic, which also holds exceptionally high standards, it means that there has been close and constant supervision on the part of one experienced man, as funds have not been provided to retain and train an under-study. For all the clinics, it means that public confidence necessarily has been upheld in order to attract the cases, and that the cases have been used effectively to supply an element which is essential in the study of disease and in the instruction of veterinary students.

During the year upon the recommendation of the faculty, the trustees of the University voted to increase the entrance requirements to the Veterinary College by adding one year of collegiate work, this additional requirement to take effect at the beginning of the academic year 1932-33. At the same time notice was given to prospective students that the faculty and trustees were seriously considering the requirement of two years of collegiate work for entrance beginning with the 1934-35 collegiate year. The need for these increased entrance requirements has been appreciated for many years but action has been deferred because of the small registration of students. Recently greater numbers have applied and we feel the time is ripe for higher standards.

Research during the year has continued unabated. Certain urgent problems receive special appropriations and claim a major portion of the time. These include infectious abortion and mastitis of cattle, either of which is more destructive than tuberculosis; poultry diseases, which as a group threaten an industry greater than the dairy industry; Johne's disease of cattle, which is exceedingly destructive in certain European countries and is slowly but persistently invading this country; and a study of false tuberculin reactions which are appearing in disconcerting numbers as the proportionate number of true reactions de-

creases. The problem of infectious abortion is assigned to the Experiment Station, that of mastitis to the Department of Medicine, and the others to the Department of Pathology and Bacteriology. Publications which have appeared in our annual reports, and those which will appear in this year's report trace the progress of these researches. The work on poultry diseases and that on infectious abortion is so far advanced that the men engaged with them are under constant pressure to go into the field and help to apply their findings to the actual control of the diseases. A similar situation with respect to mastitis is rapidly developing.

All the research in the college is not confined to projects, which in one sense, may be regarded as emergencies. Basic work is in progress in most of the departments. In the Department of Physiology there is being conducted a study of the constituents of the normal blood of various domestic animals, and of the changes brought about by a few diseases, especially milk fever. Azoturia in the horse, and parturient paresis in the sheep and dog also are being investigated. In the Department of Surgery, methods of handling navicular disease in the horse are being investigated. In the Department of Pathology and Bacteriology a study of the blood picture of normal cows and those infected with Johne's disease has just been completed. The Experiment Station has work in progress dealing with hog cholera, dog distemper and certain phases of immunity. The Department of Medicine, through a system of classification and careful records, is studying the clinical aspects of the cases in the Ambulatory Clinic. These examples indicate that research, which traditionally plays an important part in the work of the Veterinary College, still is opening new fields and giving life and substance to the instruction.

Extension on the part of a professional school necessarily is restricted. The Veterinary College makes public contacts largely through its graduates. Aid rendered practicing veterinarians by members of the Veterinary College staff takes the form of office and field consultations, correspondence, and addresses. This work is claiming an increasing proportion of time as transportation facilities shorten distance. The departments of Surgery, Medicine, Small Animal Clinic, Pathology and Bacteriology, and the Experiment Station bear the brunt of this work. The annual veterinary conference, a feature of extension, this year had an attendance of 235, the largest on record. A short poultry disease school, well attended by practicing veterinarians, also has been held at the college.

As preventive medicine assumes greater importance, members of the staff have been called on more and more to address breeders' meetings, and various organizations interested in public health or other aspects of animal diseases. During the year the Experiment Station has initiated a cooperative project with the Farm Bureau and practicing veterinarians, which is utilizing all three forces in the work of abortion disease control. The Department of Medicine has been drawn on heavily to guide those interested in the control of mastitis; and requests for aid in handling poultry diseases, cared for by the Department of Pathology and Bacteriology, have been frequent and urgent. Practicing veterinarians have been slow to interest themselves in poultry diseases.

Extension among animal owners has been confined chiefly to preventive medicine, and care has been taken that it should not take the form of leading laymen to believe that they have been taught how to diagnose and treat disease. In the field, it has required tact and experience to draw a sharp line between types of public education which are a function and a responsibility of the Veterinary College, and veterinary service which can be rendered only by the trained man in actual contact with his specific case.

An important service which has some aspects of extension is the laboratory diagnosis. The usual number of accessions have been handled during the year. This is a service for practicing veterinarians, often incorrectly regarded as mere routine, but which actually must include supporting advice if the livestock owners are to receive, through their veterinarians, the full benefits of accurate diagnoses.

The needs of the college, which continue to accumulate, already have been indicated in this resumé of the work. Specifically, they include an Assistant Professor of Bacteriology; an instructor on the Experiment Station Staff; an

assistant in the library; an extension worker in poultry diseases; a salary scale in the Surgery Department which will retain an under-study; a poultryman to care for the experimental flock which will be housed in the new poultry house. These all are required to clear the way for work which is already under way, and which has outgrown the personnel now assigned to it.

The need for a new building to house the Department of Pathology and Bacteriology has been stated and restated. This need, foreseen by both Dean Moore and Dean Fish, is now virtually an emergency. The increased registration which will require more laboratory sections and the incomplete staff in the department constitute a trying situation which calls for prompt relief.

A parasitologist should be added to the faculty if the Veterinary College is to meet its responsibility to the State. This would be an investment in future security which the State owes its livestock owners. The certain knowledge that parasitic diseases are becoming more prevalent as the country grows older; the fact that the life histories of some of our most common animal parasites are yet unknown; and the day to day perplexity which veterinarians now experience in the presence of parasitic diseases, are features suggesting action which cannot safely be deferred.

There is need for a salary scale which will attract and retain the most promising young men, give them reasonable financial security and opportunity for self development, and set for those who become proficient a goal worth attaining. In no other way can the several departments be built up, the present morale maintained, and the work of the college advanced.

EARL SUNDERVILLE
W. A. HAGAN
R. R. BIRCH

Administrative Committee.

APPENDIX VIII

REPORT OF THE NEW YORK STATE COLLEGE OF AGRICULTURE AND OF THE CORNELL UNIVERSITY AGRICULTURAL EXPERI- MENT STATION

To the President of the University:

SIR: I have the honor to submit a report of the New York State College of Agriculture and of the Cornell University Agricultural Experiment Station for the fiscal year 1930-31.

THE STATE APPROPRIATIONS

The State College of Agriculture and the Cornell University Agricultural Experiment Station received from the State legislature of 1931 the sum of \$1,973,973 for regular and special maintenance, plus \$500,000 for the construction of the new building for agricultural economics and rural social organization. Taken in connection with the appropriation of \$100,000 made last year, there is now \$600,000 available for this much needed building. The net increase in the regular operating budget of the college for the item of personal service is \$89,950. This includes \$61,200 for payments to Cornell University for accessory instruction of students in the State College, \$12,500 in salaries taken over from other temporary funds (chiefly those of the General Education Board for the temporary support of work in rural education), six minor new positions in the amount of \$6,600, one major new position in plant pathology in the sum of \$4250, minor salary increases to the amount of \$2430, and other incidental advances.

The policy of the Legislature of 1931, applied to all State activities, was that there should be no salary increases this year, the available funds in the treasury to be devoted rather to public works which should relieve the wide-spread unemployment situation. While certain salary adjustments here are a pressing necessity for the competent development of the work and the maintenance of the morale of the staff, nevertheless the college has recognized the validity of the principle followed by the legislature, and finds itself highly appreciative of the improved maintenance of other phases of its work.

The general operating funds other than for personal service were increased by \$30,465, some items in which were designated for particular departmental needs. In addition, two special appropriations of large moment were allowed: One, an increase of \$76,000 for the fuller development of the special program for land study as a basis for land classification and utilization on a sound permanent basis; the other, an item of \$60,000 for the purchase of foundation live-stock of all classes, in furtherance of the program for the enlargement of facilities for the Department of Animal Husbandry. This latter grant, supplementing the appropriations of last year for several new barns for the various classes of live-stock and for the purchase of land, and the appropriations of 1929 for the enlargement and better maintenance of the staff and the established activities, brings nearly to completion a comprehensive plan to place this department on an operating basis more nearly worthy of this leading agricultural industry in New York State.

The total state appropriation for annual maintenance of the College was increased in the sum of \$193,915, by the additions above noted, to which is to be added \$500,000 for the new construction and \$60,000 for live-stock.

The financial progress of the past fifteen years is reflected in the following figures: For the year 1916-17, the total state appropriations for ordinary maintenance amounted to \$518,325.66. The income from federal grants and other sources, exclusive of incomes from tuition, class fees, and sales, was \$124,348.32. The grand total was \$642,673.98. This included both Agriculture and Home Economics, which were then combined in the College of Agriculture. The comparable combined funds for Agriculture and Home Economics for the year 1931-32 are as follows: From state appropriations for general maintenance, \$2,171,215; from federal and other sources, exclusive of incomes from tuition, class fees, and sales, \$464,235.93. The grand total is \$2,635,450.93. The net increase in annual operating funds for Agriculture and Home Economics during the fifteen-year period is, therefore, \$1,992,776.95, or 310 per cent. This has been absorbed in new or expanded activities, enlargement of staff, salary increases, and augmented general maintenance.

During this same period, new building construction, equipment of such buildings, and grounds improvements have been provided by the State for Agriculture and Home Economics in the amount of \$4,705,300. During this period excellent field buildings for Agronomy, Floriculture, Plant Breeding, Poultry Husbandry and Vegetable Crops have been erected on funds provided from other sources than state appropriations. Part of the construction for which the state appropriations have been obtained is yet to be completed, notably the new buildings for Home Economics and for Agricultural Economics and Rural Social Organization. These buildings should be far advanced during the coming year. The total appropriations from the State for new buildings, their equipment, and grounds improvements from 1904, when the active interest of the State began, to the present date reach the sum of \$6,160,800.

BUILDINGS AND GROUNDS DEVELOPMENTS

During the year covered by this report there were purchased on the state appropriation of \$60,000, made by the Legislature of 1930, parts of the Warren and Calkins farms at Forest Home, adjoining the college poultry farm, approximately 502 acres of excellent land with good barns. This area is for the use of the Department of Animal Husbandry. On university funds there was acquired the McGowan farm, in excess of 150 acres, at a cost of \$25,000. This farm lies in the midst of our older farm tract, and has been under rental by the college

for nearly two decades. The soil is particularly suited to the needs of experimental work, and the farm will continue to be used chiefly for this purpose and for our general needs. These areas, together with other lands acquired during recent years, bring the total farm acreage at the college to 1821.5 acres. It is believed that adequate land has now been permanently acquired to meet the needs of the college for many years to come, thus removing the pressure for further funds for these purposes.

During the year the main dairy barn was completely revamped and placed in excellent condition, the horse barn was extensively remodeled, and an excellent, commodious, modern calf barn (\$16,000), and a large, well-constructed tool shed (\$19,676) were erected. The erection of a new sheep barn and a new swine barn is well advanced at a cost which will approximate \$40,000 for the two structures. They are placed on the Waite farm, where there is excellent range for both classes of animals. The architects' drawings for the fat-stock barn are nearing completion, and it is expected that construction will be started in the late summer. Funds have been provided and authorization given for the repair and painting of eight additional barns or groups of barns on the college farm, these being the older structures, much in need of attention. The work will be done during the summer of 1931. There will then remain only one additional barn, that on the Mitchell farm, needing attention. Needed drainage and road improvements, including extensive grading, have been made about the central group of barns nearest the campus.

Extensive repairs and painting have been completed on six of the farm houses, and similar work authorized on another large two-family house, all of these lying along the state highway through the college farm. Electric light and permanent water-supplies and modern sanitary facilities have been installed in four of these houses, and another is to be similarly equipped during the summer of 1931. Unightly out-buildings have been removed from about these homes and neat garage facilities provided.

The area about the new greenhouse range has been improved by somewhat extensive grading, and there have been erected two large lath-sheds and a packing and storage shed for the work in ornamental horticulture. A substantial addition has been made to the drying shed on Caldwell Field, for the experimental work in Agronomy.

One of the pressing needs for many years has been the building of permanent roads about Bailey and Roberts Halls. With the addition of the new Plant Science Building an adjacent area required roads, walks, and other grounds improvements. Contracts have been let in the sum of \$32,592 for these improvements, including concrete roads, and the work is now in progress. There will now be provided complete permanent roads and walks on the highways south and west of the college buildings, the main arteries of travel. Tower Road was completed in 1929. During the current year very satisfactory boulevard lights were installed by the college along this entire highway south of the agricultural college campus. In the year 1918, rows of red oaks (*Quercus rubra*) were planted on each side of this highway, and they have now attained a size which indicates that this will soon become one of the most attractive thoroughfares on the university campus. There is very urgent need that similar developments and planting shall take place on Garden Avenue, east of the State Veterinary College and the State Drill Hall because of the importance this road has attained in the university communication system.

The new Plant Science Building was occupied during the current year, and its equipment practically completed. There is general agreement that the five departments housed in this building, costing with its equipment approximately \$1,400,000, now possess facilities not surpassed by any other institution in this country. There are still needed extensive additions to the greenhouses adjacent to this building, as much of the work in plant science requires such facilities. Two excellent greenhouses were erected during the year, and all of the other houses in this range thoroughly overhauled and restored during the year; but the range remains seriously inadequate. One of the most pressing needs of the college is now for additional glass houses.

The space vacated by the departments housed in the new Plant Science Building has required extensive remodeling and rehabilitation to adapt it to the departments which are now to occupy it.

During the year, the contract for the foundations of the new building for Agricultural Economics and Rural Social Organization was let, and the work is in progress. Plans for the superstructure have been approved, and bids thereon are to be called for shortly.

Some of the activities of the college, requiring buildings, are conducted elsewhere in the State. At the Long Island Vegetable Research Farm at Riverhead there have been erected during the year a laboratory building costing \$13,000, and additions to the tool shed in the sum of \$2000. While these structures are modest they are well suited to the needs of this small research unit. The buildings for the Central New York Egg Laying Contest in Chemung County, and for the Western New York Egg Laying Contest in Genesee County, for each of which appropriations of \$25,000 were made by the Legislature, have been erected during the past few months, and the contests will be inaugurated next autumn.

The year 1930-31 has been one of unusual additions to and improvements in the physical plant of the college, involving extraordinary demands in the preparation of plans or the execution of the work. The developments have necessarily made heavy demands on the time of the officers and teachers concerned. The comprehensive nature of the improvements has involved in one way or another nearly every department of the college and nearly all of the college properties. In consequence the entire physical plant will reflect renovation and extension of unprecedented extent when the work now provided for is accomplished. Naturally there will remain other needs which should be met.

Of the unmet needs, the most urgent are for a library building, additional greenhouses for the plant-science departments, and a building for Agricultural Engineering. These requirements, of long standing, are not relieved by the changes which have been made. The college will continue to be very seriously handicapped until these long-sought buildings become a reality.

By increased enrollments and by new appropriations by the Legislature, additional responsibilities have been laid on the college for work in Entomology. The Department of Entomology is to be transferred to the present Home Economics building when it is vacated two or three years hence. This will temporarily relieve the acute pressure on this department. Ultimately, however, and in the not very distant future, a special building designed for its needs must be sought for this department. There is immediate need for additional glass insectaries for the work in Entomology.

The other remaining item of considerable importance in the building program of 1920 is for the wings to the present poultry building to house certain essential vocational activities. These were called for in the original plan, first submitted in 1910, but were omitted by reason of inadequate funds when the central unit was erected.

THE IMPROVEMENT OF SALARIES

No problem confronting educational institutions during the past decade has been more disturbing than the question of providing salaries that fairly compensate able teachers and investigators for the service they render. The demand for scientists of demonstrated productivity, both by educational institutions, industries, and agencies of government, has become great and highly competitive, and only those institutions and agencies able to provide salaries and facilities which are sufficiently attractive have enjoyed any security. When these scientists also possess those rare qualities which make them good teachers and directors of advanced students in fields of inquiry, the problem of engaging or holding such as an institution of the higher order required becomes doubly acute. An institution lacking a reasonable proportion of such minds on its faculty cannot hope to attain or hold a place of leadership and wide influence in the educational world.

While the policy of New York State in many matters affecting the educational progress of the Commonwealth has been generous and far-sighted, and its standing among the States is noteworthy in these respects, such enlightened foresight

has not been equally reflected in the provision for salaries in the state's higher institutions. These institutions from which the leaders and teachers must come operate at a serious disadvantage because their salaries are out of line with the salaries paid in privately endowed institutions of the better sort, engaged in work of a comparable character. There is urgently needed in responsible quarters a clearer recognition of the seriousness of the prevailing policy with respect to New York State's higher institutions.

The problem is accentuated when the administrative officers of these institutions are deprived of any possibility of salary adjustments within appropriations available, through an itemized appropriation act in which each position is individually set out, with no provision either for readjustment of the individual items or for stated increases. Such is the case with the appropriations for the four state institutions at Cornell University and with some others. This practice appears to serve no advantageous purpose in the conduct of the state's business, and it has a deadening effect on the institutions which must operate under it. It is opposed to the public welfare in the operation of these institutions, as the responsible administrators, who alone can know the changing needs and the emergencies which arise, can neither change a salary nor give any assurance of future change and adjustment when confronted with a possible serious loss.

If for certain convenience in accounting procedure the itemized appropriation is to remain, then there must be legal provision for stated annual increases, on appropriate recommendation, if vitality is to continue in these centers. Since New York seems committed to the policy of the rigidly itemized appropriation, steps have been taken during the past year by the college administration to set up a formal classification of positions in the College of Agriculture in conjunction with the other state institutions at Cornell University, with salaries appropriate to the posts and with provision for modest annual increases when recommended by the University. All positions have been so classified and salary scales indicated. For the teaching and research groups in the State College of Agriculture the following scale is indicated; for the rank of professor, minimum salary of \$5000, maximum salary \$7500, annual increase \$250; for the rank of assistant professor, minimum salary \$3500, maximum salary \$5000, annual increase \$250; for the rank of instructor, minimum salary \$2000, maximum salary, \$3500, annual increase \$250. There is provision for higher salaries for a limited number of professors of extraordinary distinction and qualifications. All other posts are appropriately scheduled. The classification of posts and the salary scales and annual increments associated therewith were worked out in discussion with the Director of State College Education in the State Education Department and with a representative of the Joint Legislative Committee on the Classification of Salaries in the state service. The schedules as finally outlined have been approved during the year by official action of the Trustees of Cornell University and of the State Board of Regents, and are ready for submission to the Governor and the Legislature.

As stated in former reports and on other occasions the improvement of salaries in the College of Agriculture and the better maintenance of existing activities transcend in importance any proposals for new activities or an expanded program.

SPECIAL GIFTS

The State College of Agriculture is seriously in need of scholarships and loan funds to aid needy students. In a comprehensive study of the reasons why students voluntarily withdraw before completing their courses, the chief reason is found to be financial necessity. Furthermore, contacts with qualified high-school students in the farm areas of the State reveal that the chief deterrent to many of them who desire and would profit by collegiate study in agriculture is lack of financial resources. The long-continued economic depression has left many farm families without the means of continuing the education of their children who are qualified for the higher studies. This is peculiarly the time when such youth should be preparing for the larger opportunities in agriculture, and those who find the means to do so are in an advantageous position. It is a serious loss to

State and Nation, as well as to these individuals and their families, that such qualified young men should be prevented from gaining the fullest preparation for their life work. Modest grants for scholarships or for loan funds would enable many of these persons to enter or to continue their studies in the State College of Agriculture. The following two provisions for scholarships are therefore most welcome:

By bequest of Miss Mary F. Hall of Spencer, New York, there has been established, effective beginning with the next academic year, the Hervey S. Hall Scholarship. It has an annual value of approximately \$150, and is to be awarded to a properly qualified student of either sex, a resident of New York, pursuing a course in agriculture or forestry leading to the degree of bachelor of science, and in need of financial aid. It is "to be granted first to a student from the town of Spencer, New York, should a suitable candidate appear, or else to a student from Tioga County, or from the state at large."

Effective for the year 1931-32, the New York Florists' Club presented to the University, \$900, to be awarded as scholarships to junior and senior students specializing in floriculture and ornamental horticulture. The grant is intended to provide three scholarships of \$300 each, but the fund is further divisible at the discretion of the University.

Mr. Archer M. Huntington of New York City, who has a private preserve adjoining the Cornell Forestry Summer Camp at Newcomb, in the Adirondacks, gave to the University \$5000 for the support of researches at the Arnot Experimental Forest. This gift will afford much assistance in advancing a number of research projects in this important tract.

The late G. Frederick Schwarz of New York, just prior to his death, gave the University \$1000 toward the construction of a foresters' lodge, or headquarters building, for the Arnot Experimental Forest. About \$6000 additional is required before this construction can be inaugurated. Such a gift from an interested friend would be most welcome.

It is a pleasure to record our indebtedness to these several donors.

SPECIAL TEMPORARY RESEARCH FELLOWSHIPS AND INVESTIGATORSHIPS

During the year 1930-31, the following temporary fellowships and investigatorships were executed, for the purpose of advancing research in the fields indicated. Such temporary research foundations have been received by the University for the use of the College of Agriculture for more than two decades, and they have proved highly satisfactory aids to research and to graduate study.

(a) By the Smith Incubator Company of Ohio, a fellowship for the study of the combined effects of temperature and humidity on the growth, metabolism, and mortality of the chick embryo in relation to artificial incubation. The fellowship was effective November 1, 1930, and carried a grant of \$3600 from the company.

(b) By the Kraft-Phenix Cheese Corporation a fellowship for the study of the relative nutritive properties of Kraco milk-sugar feed (dried whey) and dried skim milk. The fellowship extends for a period of one and one-half years beginning February 1, 1931, and carries a grant of \$3,000 for the period.

(c) By the Nassau County Farm Bureau Association renewal of its fellowship for the investigation of diseases of truck crops grown by members of the association. The renewal is for a period of two years beginning April 1, 1931, and carries an annual grant of \$1450.

(d) By the American Rose Society renewal of fellowship for the investigation of diseases of the rose, including brown canker, black spot, and other diseases, with special reference to methods of control. The renewal is for a period of two years beginning April 1, 1931, with a grant of \$1250 a year.

(e) By the Boyce Thompson Institute for Plant Research at Yonkers, the Horticultural Society of New York, and the New York Botanical Garden, co-operating with the State College of Agriculture, renewal of the fellowship for the investigations of lily diseases. The renewal is for a period of two years beginning April 1, 1931. Toward the expenses of the cooperatively maintained fellow-

ship the Horticultural Society of New York contributes \$1000 a year, and the Boyce Thompson Institute \$1150 a year; the New York Botanical Garden provides facilities for the growing of seedlings and makes available the collections of lilies grown for display and experimental work at the Garden. The State College of Agriculture provides at least \$150 in addition to laboratory and greenhouse facilities.

(f) By the Oswego County Farm Bureau Association renewal of its fellowship for the investigation of the diseases of vegetable crops grown by members of the association, with special reference to the development and methods of control. The renewal is for a period of six months beginning April 1, 1931, and carries a grant of \$950 for expenses.

(g) By the Agricultural Advertising and Research Service of Ithaca a temporary investigatorship for the study of the value of corn gluten meal and related products for the feeding of poultry. The donor has provided \$800 for the expenses of the work.

(h) By the New York Florists' Club a fellowship for the purpose of investigating the diseases of greenhouse roses, including mildew, rose draft diseases, and other troubles. The fellowship extends for a period of two years beginning May 1, 1931, and carries a grant of \$1450 a year by the donor.

(i) By the General Seafoods Corporation a fellowship for the investigation of the nutritive value of various fish products and other foods subjected to different methods of drying. The agreement covers a period of one year beginning June 1, 1931, and the donor has contributed \$1000 to cover the costs.

CHANGES IN STAFF

The following members of the staff resigned during the year: Dr. J. D. Brew, Extension Professor of Dairy Industry; Ralph A. Felton, Extension Professor of Rural Social Organization; Dr. R. S. Uhrbrock, Assistant Professor of Rural Education; Dr. H. P. Cooper, Assistant Professor of Field Crops; and Dr. J. B. Cotner, Extension Assistant Professor of Plant Breeding.

Dr. Carl E. Ladd, Director of Extension, was granted leave of absence for one year, beginning January 1, 1931, in order to enable him to accept temporary appointment as Deputy Commissioner of Conservation in the State Department of Conservation. Professor in Extension Service, Ralph H. Wheeler, was named Acting Director of Extension during the absence of Doctor Ladd.

For six years the College of Agriculture has cooperated with the University of Nanking, Nanking, China, in a program of plant improvement, assisted financially by the International Education Board. Dr. H. H. Love, Professor of Plant Breeding, who has been especially active in this undertaking, was requested by the national government of China to serve as special adviser to the government in plant improvement for a period of three years. Such leave was approved by the trustees, and Doctor Love sailed for China about the first of April. To provide for the conduct of his work at Cornell University, Dr. John H. Parker, of the Kansas State College, was appointed Acting Professor of Plant Breeding for the year 1931-32.

At the request of the United States Bureau of Indian affairs, Dr. Erl A. Bates, Adviser in Indian Extension Service, was granted leave of absence for ten months beginning September 1, 1930, in order to assist the Bureau in reorganizing its educational and agricultural service programs.

In order to provide for a number of new undertakings authorized in appropriations by the legislature, several important additions to the staff were made possible. C. B. Raymond was appointed Extension Assistant Professor of Vegetable Crops, effective September 1, 1930. Mr. Raymond was graduated in agriculture at Cornell in 1913. For the past twelve years he served in this State as a county agricultural agent.

C. G. Bradt, also a graduate of the college and a former county agricultural agent, was appointed Extension Assistant Professor of Animal Husbandry, effective October 16, 1930.

L. E. Cruickshank, a graduate of the college in 1927, became Extension Specialist in Marketing, by appointment effective August 1, 1930.

Dr. Ora Smith accepted appointment as Assistant Professor of Vegetable Crops as of July 1, 1930. Doctor Smith received his bachelor's degree at the University of Illinois and his Master's degree at Iowa State College. He took his doctorate at the University of California in 1929, with specialization in plant physiology and plant nutrition. He held an assistant professorship at the Oklahoma A. & M. College prior to coming to Cornell University.

Dr. W. A. Anderson, Professor of Sociology and Chairman of the Department of Sociology at North Carolina State College since 1927, has accepted appointment as Assistant Professor of Rural Social Organization, beginning with the next academic year. Doctor Anderson was graduated from the Iowa State College in 1921, receiving his Master's degree there a year later. The degree of Doctor of Philosophy was received at the University of Minnesota. During the current academic year he has been engaged on special rural studies in China, on leave from his institution.

Dr. Arthur Brotherton Burrell becomes Assistant Professor of Plant Pathology by appointment effective July 1, 1931. Doctor Burrell received his undergraduate training at Ohio State University. He entered Cornell for graduate study in 1926, and has remained here since. His studies have been concerned with the diseases of fruits, particularly certain important diseases in the orchards in the Champlain Valley. He is to continue these studies, on a special appropriation made for the purpose.

Dr. Denis Bowes Johnstone-Wallace comes to the college, beginning with the next academic year, as Agrostologist in the Department of Agronomy. He is a graduate of the University of Durham, England, with both bachelor's and master's degrees. He holds a National Diploma in Dairying, granted by the Joint Board of the Royal Agricultural Society of England, and the Highland Agricultural Society of Scotland. For a time he served at the Northumberland County Agricultural Experiment Station at Cockle Park, one of the leading centers for pasture-grass experiments in Great Britain. More recently he was principal of the East Anglian Agricultural Institute at Chelmsford. He will have responsibility for the pasture-land survey and experiments for pasture improvements, as a phase of the New York State land-utilization program recently authorized by the Governor and the legislature.

ANNA BOTSFORD AND JOHN HENRY COMSTOCK

Within the year, death removed two of the most distinguished persons who have been identified with the College of Agriculture and who held high place in the University—Mr. and Mrs. John Henry Comstock, both Professors, Emeritus.

Emeritus Professor Anna Botsford Comstock was born at Otto, New York, September 1, 1854. She entered Cornell as a student in 1875, and received here a bachelor's degree in science in 1885. She was united in marriage with John Henry Comstock October 7, 1878, and went with him to Washington, D. C., where he was for two years (1879-1881) Entomologist of the United States Department of Agriculture. She began teaching and writing as a member of the extension staff in Cornell University in 1896; in 1898 she became Assistant Professor in Extension Nature Study; and in 1899 she was appointed lecturer in Nature Study in the University. This position she held also in Stanford University in 1900, and in the University of California in 1905. She accepted the appointment of Assistant Professor of Nature Study in Cornell University in 1913 and was advanced to a professorship in 1920. In June, 1922, she retired, but only to continue many of the activities in which she had long engaged. She died at Ithaca August 23, 1930.

Emeritus Professor John Henry Comstock was born in Janesville, Wisconsin, on February 24, 1849. He entered Cornell University at the age of twenty intent on the study of entomology, in which his interest was already highly developed. He became an instructor while an undergraduate and gave his first course of lectures in entomology in the University in 1873. He received the degree of Bachelor of Science from Cornell University in 1874, and from then on he shaped and directed the development of entomology in the University for approximately forty years, or until his retirement in 1914. He rose to a professorship in entomology and inverte-

brate zoology in 1882, which he held continuously until the end of his active teaching. He died at Ithaca March 20, 1931, surviving Mrs. Comstock by a few months. These two had been associated in a common work, in which both achieved illustrious careers, for more than a half century.

It is impossible here to speak adequately of the achievements and contributions of these two eminent teachers, investigators, and writers; that record is available elsewhere. Both became outstanding leaders in their chosen subjects, with international reputations, and both have left many books and other writings to preserve their contributions in permanent form. Both were devoted and inspiring teachers, and thousands of students felt their influence, many of them being inspired to seek for themselves careers in the fields of knowledge in which these teachers had led them. Their places are secure in the history of Cornell University and of the fields of science in which they worked. It is persons such as these that enable a University to attain greatness as a center of learning.

STATE EMPLOYEES' RETIREMENT SYSTEM

As reported a year ago, an act of the legislature of 1930 provided for the admission of all of the scientific, administrative, and other employees of the state institutions at Cornell University to the benefits of the State Employees' Retirement System. Admission of the persons employed on the date first effective was optional with the individuals up to December 31, 1930. By this date, 695 employees of the State Colleges of Agriculture and Home Economics had entered the system. The generous provisions of this retirement plan afford excellent protection for the staff and adequately meet an urgent necessity of the institutions.

GROUP INSURANCE

At its meeting on June 15, 1931, the Board of Trustees of Cornell University approved a plan for group insurance, applicable to all permanent employees of the University and immediately effective. The faculties, staffs, and employees of the administrative and operating divisions of all the state institutions at Cornell University, including the State Experiment Station at Geneva, are covered by the insurance on the same basis as similar employees of the endowed colleges without any distinction whatsoever. The plan provides that the University will pay the entire cost above the maximum amount of contribution from the members permitted by law, which is \$7.20 a year for each \$1000 of insurance. This will involve an annual expenditure of many thousands of dollars for the premiums for several hundred teachers and other employees receiving their compensation from state or federal appropriations. The voluntary and gratuitous assumption of this heavy financial responsibility for the employees of the state institutions by the already heavily burdened and always inadequate incomes of Cornell University from its endowments and other sources, is an act of generosity toward the State which merits full recognition. This new benefit is in addition to very large annual expenditures of the private funds of the University for other support of the State Colleges. All of the general facilities of the University and the services of its administrative offices are equally available to the faculty and students of the state institutions; and the University provides instruction in all needed branches which fall outside the technical offerings of the state institutions at a price far below the cost to the University. The state institutions (and therefore the State itself) profit heavily from their relationships with and in Cornell University.

ENROLLMENTS IN REGULAR AND SPECIAL COURSES

The year 1930-31 showed an increase of 174 in the total number of different individuals enrolled in the college, there being some increase in every group except the summer school students. The number of new undergraduate students (300) is greater than for several years past, and the percentage of old students returning remains virtually constant.

	1929-30	1930-31
Students in the four-years courses:		
Freshmen	255	277
Sophomores	160	194
Juniors	149	149
Seniors	145	133
	<hr/>	<hr/>
Special students		26
Students in the two-years courses:		33
Dairy Farming	8	16
Fruit Growing	4	9
Poultry Farming	1	5
Vegetable Growing	1	2
Commercial Floriculture	—	3
Manufacturing and Marketing of Dairy Products	—	8
	<hr/>	<hr/>
Students in the winter-courses:		
Agriculture (general)	38	59
Dairy Industry	27	34
Poultry Husbandry	29	13
Fruit Growing	8	5
Flower Growing	—	13
Vegetable Crops	4	7
	<hr/>	<hr/>
Graduate students	311	387
Summer-school students	782	771
	<hr/>	<hr/>
	1,948	2,118
Less number counted twice	95	91
	<hr/>	<hr/>
	1,853	2,027

Of short schools and other meetings held on the campus during the year the following are the most important:

Summer meeting of New York State Seed Improvement Association, July 14, 1930	100
Meeting of Baptist Sunday School of Conklin, Broome County, July 17, 1930 (approximately)	100
Summer school for town and country pastors, July 21 to August 1, 1930	60
Annual meeting of New York State Cooperative Official Poultry Breeders, August 6-7, 1930	75
Summer meeting of New York State Horticultural Society, August 7, 1930	275-300
International Conference of Agricultural Economists, (21 countries, 28 States, 102 delegates), August 18-29, 1930	322
Cornell Vegetable Variety Field Days, August 19-20, 1930	50
State-wide poultry-judging contest for 4-H Club members (contestants from 19 counties, three winners to go to National 4-H Club contest in Chicago), November 7, 1930	35
Nurserymen's conference, December 15-17, 1930	85
Short course for Commercial Florists, January 19-23, 1931	80
Short course for 4-H Club agents, January 19 to February 6, 1931	14
Short course for Supervisors of dairy-herd-improvement associations, January 19-31, 1931	11
School for missionaries on furlough, January 19 to February 14, 1931	8
Twenty-fourth annual Farm and Home Week, February 9-14, 1930 (number registered)	4,891
Indian Farmers' school, February 16-21, 1931	42
Vegetable-growers training school, March 16-18, 1931	25
School for spray-service men, March 18-20, 1931	25

Extension-service conference, March 23-27, 1931	210
School for grange lecturers, March 30 to April 4, 1931	201
School for tree planters, April 2-3, 1931	42
Farm Management training school for county agricultural agents, June 15-20, 1931	40
Annual meeting of the New York State Cooperative Official Breeders, Inc., June 17, 1931	36
Fourteenth annual poultry-judging and -breeding school, June 22-27, 1931	66
Training camp for 4-H Club camp leaders, June 22-27, 1931	85
State 4-H Club Congress and training school, June 29 to July 1, 1931	585
Total	7,488

THE RESIDENCE REQUIREMENT FOR THE DEGREE

The Faculty took occasion during the year to review the operation of its regulations governing the requirement of residence for the bachelor's degree. Traditionally, the requirements for graduation have been eight terms (four years) of residence and the completion of one hundred and twenty hours, the courses of instruction in the latter being for the most part not absolutely specified. A term of residence was counted only if a minimum of twelve credit hours were satisfactorily passed. Two provisions of administrative procedure have operated to bring into question the need of a residence requirement so defined.

In 1916 the Faculty adopted a grading system by which the amount of credit varies with the excellence of the work done in each course of instruction. It was expected that this would give opportunity for exceptionally good students to complete work for the degree in less than four years, and the residence requirement was accordingly waived if an average of B was maintained. Conversely, it was expected that poor students would be forced to spend more than four years at the College because of the loss of credit incurred.

More recently, the Faculty has restricted students whose credits averaged less than C in any term to a registration of fifteen hours in the succeeding term. Obviously, this also tends to lengthen the residence period for the less able students.

In the judgment of the Faculty, these two provisions made unnecessary any further requirement than that of eight terms of physical residence, with the possibility of shortening this by virtue of work of very high grade.

In connection with the legislation just referred to it was pertinent to inquire into the effects of the system of graduated credit and of the restriction in the amount of work to be undertaken when a poor scholastic record is maintained.

The system of graduated credit operating alone was found to have had no effect in increasing the length of residence on the part of the poorer student, as apparently loss of credit was compensated for by taking more courses. It did apparently increase somewhat the number of students who were able to complete the work in less than four years. Such technical shortages in residence were previously allowed only on consideration by the Faculty of the circumstances in individual cases. On the other hand, when the system of graduated credit was supplemented by a restriction of the number of hours to be carried by those doing poor scholastic work, there was decided effect in increasing the length of residence required.

The following table shows as well as is possible the effect of the two regulations under discussion. In 1915-16 there was no regular provision for graduation in less than eight terms. In 1923-24 the system of graduated credit was in force with provision for relief from residence if a very high grade of work was maintained; there was no restriction on the number of hours to be carried. In 1929-30 the system of graduated credit remained in force and students with credits averaging less than C were restricted in the number of hours carried.

	Number of cases	Number of terms in residence for the degree							
		7	7½	8	8½	9	9½	10	10½
1915-16	100	5	1	66	22	5	1	—	—
1923-24	100	10	2	78	6	2	2	—	—
1929-30	100	6	3	55	12	14	3	6	1

GROUPS FOR CURRICULUM STUDY

In every large teaching organization, there is difficulty in keeping the resources of instruction flexible enough to meet the varied demands made upon them. The units of instruction, having once been conceived as meeting certain ends, tend to become fixed and it is as hard to adapt them to other purposes as it is expensive to duplicate them. The courses offered are likely to be differentiated according to the logical divisions of the subject matter, with successive subdivisions as knowledge in the field grows and as staff facilities permit. It thus becomes the problem of the student and his advisers to bring together into a four-year program the courses that will give the training desired, and upon the Faculty as a whole rests the responsibility for making possible the attainment of the objectives of instruction for which the college exists.

The continued growth of subject matter for instruction and its repeated subdivision make it probable that the departments of instruction shall cease to correspond precisely with the training objectives of students. This situation can hardly be avoided in a college of agriculture because the objectives properly included are so many and so diverse.

To offset these inevitable tendencies the Faculty, on the motion of the Director of Resident Instruction, this year made possible the formation of faculty groups, not confined to departmental lines and not necessarily permanent in personnel, but corresponding to the specific ends of training. For example, the marketing of fruits and vegetables is a field of interest for students in the college but no one departmental organization is responsible for developing a program of training for it. Under the new legislation it is possible for the Director of Resident Instruction to set up a faculty group, irrespective of departmental lines, charged with the responsibility of studying the instruction appropriate for students entering this line of work. This will involve a study of the elements of training needed and an effort to provide these in the courses offered. These groups are also to study what practice should be entered upon by the student before his graduation, to aid him in his study at the college and to facilitate his entrance into his chosen work.

There is nothing essentially new in this procedure, but it is anticipated that an advantage will come from having a regular procedure established by the Faculty for what has hitherto been accomplished in somewhat haphazard and informal ways. It is significant also as marking recognition of the fact that while the established departments correspond closely with some of the vocations for which the college carries training they need to be supplemented by agencies interested in other vocations not so represented. This attempt to place a new emphasis upon the various purposes of instruction may prove a corrective to excessive departmentalization.

CHANGES INCIDENT TO THE OPENING OF THE PLANT
SCIENCE BUILDING

The transfer of five departments to the Plant Science Building during the autumn of 1930 has made possible the shifting of a large number of other departments, and this process must be continued into the next year as there is necessity for a great deal of repair and rearrangement. Naturally the attempt is being made to bring related units together for better coordination of the work to be done.

Pending the completion of the new building for Agricultural Economics and Farm Management and Rural Social Organization, the latter department has moved into the space formerly occupied by the Department of Plant Breeding in Fernow Hall. This transfer of Rural Social Organization to Fernow Hall and of Floriculture to the Plant Science Building has permitted bringing together

on the second floor of Roberts Hall most of the administrative offices of the Extension Division. The basement of Bailey Hall, formerly occupied by Plant Pathology, has been assigned to the Department of Entomology, involving an unfortunate division of the latter department but looking forward to a somewhat greater degree of proximity at the time that the new Home Economics Building is completed and the old one occupied by Entomology. The removal of the Publication Office to the second floor of Roberts Hall permits bringing the placement service and the office of farm practice nearer to the Office of the Director of Resident Instruction, with which they have close relations. The part of East Roberts Hall vacated by the Department of Pomology, by the Office of Farm Practice, and by the office of the college engineer, will be occupied by the Department of Vegetable Crops. The space in Stone Hall, formerly occupied by the Department of Botany, will be given to Rural Education, and, in addition, will provide a much needed expansion for the college library.

While these various changes will bring great relief to several departments, it has not been possible to make adequate provision even for present needs for many of them and the completion of the new buildings for Home Economics and for Agricultural Economics and Farm Management will be eagerly awaited. The most difficult of the temporary situations is that in which the Marketing Division of the Department of Agricultural Economics and Farm Management finds itself. The small building in which this division was located was so near the excavation for the new building that its removal became necessary and another place had to be found for housing thirty-six persons. The best arrangement that could be effected involves separation of this unit from the agricultural campus, a residence on Grove Place being rented and roughly fitted for the use of this unit until the new building is ready for occupancy.

CONTACTS WITH HIGH SCHOOLS

Visits of college representatives to high schools with the purpose of informing students regarding the opportunities for trained men in agricultural pursuits were conducted by Mr. A. W. Gibson and Assistant Professor G. E. Peabody during April and May. Fifty-three schools were included with a total attendance at the meetings of somewhat over 9000 students, mostly of junior- and senior-high-school grade. As in previous years, the school officials have indicated their appreciation of this cooperation in their own programs of student guidance.

These visits to the schools have met with an interested response from the farm boys there in attendance. Nevertheless, the impression gained by the college representatives is that there are surprisingly few farm boys in the rural high schools who are planning to continue their education. This impression is definitely sustained by a study recently made by Mr. Albert Joseph Paulas under the direction of Professor R. M. Stewart of the Department of Rural Education. Mr. Paulas had record of 815 farm boys graduating from high schools in 1930 and only 22 per cent of these had planned their work in such a way as to make college entrance possible.

Even in these difficult times there are rather more openings in agricultural work than can be filled by the graduates of the College. There were received during the past year requests for men for 143 positions while there were but 113 requests for help in placement. The College is therefore justified in continuing the effort to call the attention of farm boys to the existing opportunities.

It is evident that while the number of boys planning to get more than high-school training in agriculture is at present not large, those who desire to go on are often deterred by the high cost of college education. An increase in the number of scholarships for this group is much to be desired. Aside from certain aids for students of floriculture there are now but five scholarships available in the College.

SABBATIC LEAVES OF ABSENCE FOR COUNTY EXTENSION AGENTS

At its meeting in April the Board of Trustees approved the recommendation of the Dean that the privilege of sabbatic leave of absence, in general conformity with the existing university statutes, be extended to include the cooperatively employed county agricultural agents, county home-demonstration agents, and

county 4-H Club agents, subject to concurrence of the cooperating parties. The United States Department of Agriculture under date of September 30, 1930, had announced voluntarily its readiness to consider with the State individual applications for such leaves on their merits. The readiness of the Department of Agriculture to associate itself in a plan for such sabbatic leaves is important because federal extension funds are involved. The concurrence of the federal department contemplates that each proposed leave shall be agreed upon in advance, and that the leaves shall be for the purpose of technical or professional improvement involving study or research at an institution. Leave for travel, recreation, working on a farm, or employment in another institution, will not be regarded by the federal department as a proper reason for granting sabbatic leave on federal extension funds. As in the case of all University sabbatic leaves, the new leaves are to be considered as privileges rather than rights.

In approving a plan for such leaves the Trustees recognized the need for the full concurrence of the executive committees of the county cooperating associations. It was further recognized that it may be necessary for the College, from extension funds available to it, to pay the salary of a substitute agent for the period of the leave in order not to jeopardize the county extension program.

Inasmuch as the county agents are teachers representing the University and are away from libraries and centers for research, a provision enabling periods of study and professional improvement has been greatly needed. There can be no doubt as to the value of the new arrangement from the standpoint of the permanent well-being and development of the county extension services.

PARTICIPATION IN THE GRADUATE SCHOOL OF EDUCATION

For some time it has been evident that there is need in New York for another center at which work in the professional fields of education at the graduate level is available. As is generally known, standards for public-school workers have been increasing for many years. Since the war, especially, certain forces have brought these standards to a point where undergraduate training is considered insufficient to satisfy the demands of the public for certain types of positions. The four-year undergraduate period is needed, according to this conception, for general cultural and subject-matter training, so that most of the strictly professional work should be placed upon the graduate level. Particularly is this true for those holding administrative and supervisory positions, while it now appears that the high-school teacher will soon find some graduate training desirable, if not imperative.

The Department of Rural Education in the State College of Agriculture has exceptional resources for preparing workers for the rural-school field. Through its specialized courses for the different groups (supplemented by a few professional courses of a general nature where these have not been otherwise available), training on the graduate level is being given to a considerable number of supervisors, directors, and teacher-trainers in agriculture, homemaking, and nature study, and to an increasing number of secondary teachers in these fields and in the biological sciences. In addition, the department is training other groups, such as extension workers, teachers of educational psychology, and supervisors, principals, and superintendents for our country and village schools. During the academic year 1930-31 a total of 81 graduate students took either a major or a minor in the department. These may be classified, according to their major interests, as follows: agricultural education, 27; home-economics education, 5; nature study, 21; administration and supervision, 12; psychology, 10; extension, 2; unclassified, 4. A much larger number take work each year during the summer session.

As a natural and, practically, a necessary step in the improvement of these facilities to keep pace with those in other institutions, arrangements have been made for the Department of Rural Education to participate with other teacher-training agencies in the University in the formal organization of a Graduate School of Education. At its spring meeting in 1931, the Board of Trustees created such a Graduate School, with Dr. J. E. Butterworth as Director. It is expected that through such participation unnecessary overlapping of activities will be reduced, a more nearly unified program will become possible, and increased strength gained for work in the professional field.

THE WORK OF THE EXPERIMENT STATION

The Cornell University Agricultural Experiment Station, closely integrated with the research of the State College of Agriculture, has become an agency of great usefulness to the people of the State. The several hundred distinct research studies which are prosecuted each year yield a constant stream of findings of practical benefit to the agricultural industry and of significance in the advancement of knowledge. The work is so extensive that no summary can even be attempted here. In the annual report of the Station published by the State these undertakings are set forth somewhat comprehensively. For information concerning the researches, readers are referred to the state report.

THE EXTENSION SERVICE

In spite of the business depression, there has been further substantial growth in interest in the extension service, indicated, for example, by an increase in the membership in the county farm bureaus of 4984 over the preceding year. The total membership in 1930 was 39,156. The appropriations by county boards of supervisors for the county-agricultural-agent work were increased by \$30,893, or from \$238,994 in 1929, to \$269,887 in 1930, for the State as a whole. During the five-years period from 1924 to 1929, the total increase in county appropriations for such work was \$29,587. The average county appropriation in 1930 was \$4907; in 1929 it was \$4391; in 1924 it was \$3808.

Some indications of the increasing place of the extension service in helping to solve the everyday problems of a more satisfying life in the homes of the State are to be found in the growing use of the organization as a source of information on sound living, the development of a leadership group as an effective link and an activating force between the State Colleges and the homes, the counties, and the communities of the State, the trend toward programs based on known needs and interests of these homes, and the provision of increasing funds to meet these needs.

Considerable progress has been made during the year in the extension work with young persons, popularly known as 4-H Club work. There has been a significant increase in enrollment in the 4-H Clubs. Additional counties have employed club agents, county appropriations for this work have increased, and the attitude of the people in the localities has been most encouraging.

Five counties now have "county conference boards," composed of selected farmers and business men, which assume responsibility for the agricultural-readjustment programs based on economic studies made by the college research and extension staffs. As rapidly as possible other counties will be added. The soundness of recommendations made in counties started on this plan two years ago is apparent.

The use of radio broadcasting as a means of teaching has expanded rapidly during the year. Daily programs covering a wide range of subject matter, broadcast from WEAL, the university station, seem to be reaching a large and increasing audience within a somewhat restricted area. Commercial stations, especially at Schenectady, Syracuse, Rochester, and Buffalo, also are being supplied daily or weekly with manuscripts and occasionally with speakers. The stations have been urgent in their appeals to the College for speakers, and also, though to a somewhat less extent for manuscripts. There appears at present to be no limit to the extent of cooperation with commercial stations, except for the limit imposed by other duties of the extension specialists.

The range of the extension service is very broad, touching nearly every important technical interest of farmers and rural communities. A full report of these activities is included in the annual reports of the State College published by the State. Reference is made to the latter report for those who may desire to inform themselves on this aspect of the University's service, which penetrates every community in the State.

In submitting this report, Mr. President, I desire to record the great obligation of the State College of Agriculture and the Experiment Station for your wise counsel and your unflinching aid in the advancement of the work.

A. R. MANN,
Dean, New York State College of Agriculture and
Director of Experiment Stations.

APPENDIX IX

REPORT OF THE NEW YORK STATE AGRICULTURAL EXPERIMENT STATION

To the President of the University:

SIR: I have the honor to transmit herewith the annual report of the New York State Agricultural Experiment Station at Geneva for the past fiscal year. In the preparation of this report I am under heavy obligation to the Director of the Station.

The year has been viewed by the officers and staff of the Station as one of unusual progress in many essential aspects of the Station's efforts. As a result of increased funds during recent years, there has been increased productivity in the investigations and a larger number of bulletins and circulars reporting the results of such investigations have been published during the past year than in any previous year. The state appropriations for the work of the Station made by the last Legislature reached a new high level, so that the funds of the institution have been more nearly ample for its needs than has been the case for many years. The construction of the new laboratory of horticulture has proceeded rapidly, and the building is now nearing completion. The last Legislature provided \$65,000 for the equipment of this building, thus giving assurance that the Divisions of Pomology, Botany, and Vegetable Crops, which are to occupy it, will be adequately provided for. For many years the Station has urged its need for additional greenhouses. Such structures form an imperative part of the equipment for investigations in fields of plant science. The Legislature of 1931 appropriated \$80,000 for new greenhouses, and the development of plans is advancing rapidly. It is hoped that the new range may be available before the winter of 1931 sets in. Similarly, there have been some important additions to the staff, bringing the total scientific and supporting personnel to sixty-five persons. These several advances have been reflected advantageously in the spirit of the workers, as the opportunity for satisfactory progress has been notably improved.

CHANGES IN STAFF

At the beginning of the year Dr. J. J. Willaman, Chief of the Division of Chemistry, resigned to accept a position in commercial work. At approximately the same time the Station lost its librarian, Mr. Frederic Borg. Near the close of the fiscal year on June 1, 1931, Dr. E. C. Clayton, the Associate in Research in Botany, who has represented the Station in its investigations in plant pathology on Long Island for a number of years, tendered his resignation in order to accept appointment elsewhere.

The new funds together with the changes just noted resulted in several new appointments, those to the higher positions being as follows: Dr. D. C. Carpenter, Associate in Research in Chemistry since 1922, was advanced to the position of Chief of the Division of Chemistry beginning on October 1, 1930, replacing Doctor Willaman. Professor Leon R. Streeter, Associate in Research, was made a Chief in Research in the Division of Chemistry, effective on October 1.

Dr. Maurice W. Yale came to the Station as an Associate in Research in the Division of Bacteriology at the close of the fiscal year. Doctor Yale holds bachelor's and master's degrees from Cornell University and took his doctor's degree at Iowa State College. Dr. H. S. Cunningham, holder of degrees from MacDonald College and Cornell University, became an Associate in Research in Botany on June 1, as successor to Doctor Clayton in the work on Long Island. Mr. L. M. Cooley, holder of a master's degree from the University of Tennessee, came from the Ohio State Experiment Station to accept a place as Associate in Research in Botany, effective at the beginning of the coming fiscal year. Dr.

Arthur L. Shuck accepted an appointment as Associate in Research, effective at the beginning of the coming year. Doctor Shuck received his higher training at the University of Illinois.

SPECIAL LEGISLATIVE ASSIGNMENTS

The State Experiment Station, like the State Colleges at Ithaca, has received from the Legislature during the past ten years many appropriations to undertake special or designated pieces of work. During these more recent years the policy of the Legislature has been to expand the activities of these institutions through appropriations for specific and limited pieces of new work rather than by additions to the general budgets of the institutions. During the past ten years the Experiment Station has received eleven of these special grants, totaling \$133,500. Manifestly, the Station is very happy to undertake the investigations which these grants make possible, all of which are of immediate importance, and for the most part they have been the subject of special request by the organized farmers of the State. The steady increase of special undertakings, however, without compensating increase in general maintenance funds to take care of the overhead and other expenses incident to the work but not properly chargeable to the special funds, has created real embarrassment with respect to the older established work and the general administration of the Station. Relief would be forthcoming if the special funds were merged with the general budget and made to bear their share of the general operating costs. If this is not done soon, it will be necessary for the Legislature to increase the regular funds of the Station unless the established activities are to be handicapped by diversion of some of the essential support.

THE INSPECTION WORK

The State Experiment Station performs a number of duties in connection with the regulatory work of the State Department of Agriculture and Markets. These services include the making of analyses of commercial fertilizers, insecticides, and concentrated feeding stuffs, and the inspecting of glassware used in various important tests at creameries and cheese factories. During the past year the inspection and testing of commercial legume inoculants was delegated to the Station. All of these activities tend to increase in volume. The work has been placed on the Station at various times and the financing of this service and the methods of its administration have not yet been coordinated satisfactorily. The Station feels under the necessity of making the appropriate tests and inspects all of the material submitted to it by the State Department of Agriculture, but the amount has grown more rapidly than have the maintenance funds. This has made a serious drain on the resources of the Station. It is apparent that legislation will need to be sought which will coordinate these several inspection services and provide a financial basis for the work which will bear an appropriate relation to its volume. Part of the work is supported by license fees and part by direct state appropriation at the present time.

SALARY CONDITIONS

The Legislature of 1931 provided two salary increases of \$100 each for members of the staff. For a number of years those responsible for the financial support of the institution at Albany have withheld adequate increases, and there are a number of members of the staff who have received no advancement in eight to ten years. This means that there has been no adequate readjustment to the changed financial situation.

Plans for the presentation to the Legislature of a well-considered salary scale for the officers and employees have been developed for the State Experiment Station in harmony with comparable plans for the other state institutions at Cornell University. A salary scale placing persons of coordinate rank and responsibility at the State Experiment Station, the State College of Agriculture, and the State Veterinary College, on a uniform basis was recently approved

by the Board of Trustees of Cornell University and the Board of Regents of the State Department of Education. These proposals will be placed before the Governor and the Legislature together with those for other state institutions here and elsewhere, when the time seems appropriate. In view of the present disturbed economic conditions further progress with this program may be retarded. In the meanwhile the needs of the Station could be greatly relieved if the State would take care of some of the more urgent individual cases.

THE DEATH OF DR. WHITMAN HOWARD JORDAN

Doctor Jordan, who served for twenty-five years as Director of this Station, died at Orono, Maine, on May 8, 1931. On his retirement from his active responsibilities at the Station in 1921, he had taken up his residence at Orono.

Doctor Jordan was born at Raymond, Maine, on October 27, 1851. He began his professional work at the Connecticut Agricultural Experiment Station in 1878, moving subsequently to the Pennsylvania Experiment Station. For eleven years prior to coming to New York, he was Director of the Maine Experiment Station. His career was coincident with the period of active development of experiment stations in the United States.

Doctor Jordan possessed high professional and scientific ideals which he maintained insistently at all times. To him more than to any other one person belongs the credit for bringing the State Experiment Station in New York to a place of large recognition and influence. His methods and standards were widely recognized, and the whole experiment-station movement in this country profited by his work.

THE EXPERIMENTAL UNDERTAKINGS

It is impracticable to attempt here any discussion of the work of the Station. There are in progress several scores of important investigations and experiments covering many phases of bacteriology, botany, chemistry, dairying, entomology, pomology, and vegetable production. The annual report of the Station published by the State reviews somewhat fully the nature of the investigations and the progress in each of these manifold undertakings. The program of work has been carefully planned and is constantly reexamined in order that it may remain vital with respect to the State's needs. The year has witnessed the completion of many undertakings, a number of important contributions to knowledge as well as to practice, and the inauguration of new investigations. The writer feels that the record of the year's progress as revealed in the separately published state report is of such importance that any one desiring intelligence concerning the service of this division of the university organization should consult the latter report.

A. R. MANN,
Dean, and Director of Experiment Stations.

APPENDIX X

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 herewith a report of the New York State College of Home Economics for the year 1930-31.

THE EDUCATIONAL PROCEDURES

The intensive study of the college curricula and of the methods of instruction which has prevailed in recent years, has been continued during the past year and further changes have been made. The somewhat rigid and prescribed curricula of former years have given way to a policy of larger freedom of election in accordance with the individual interests and purposes of the students, except with respect to a limited number of courses still considered to be basic for certain fields. In general, the plan which has been adopted provides that about one-third of the student's time should be devoted to the study of English and the sciences, the latter including chemistry, physics, biology, physiology, psychology, economics, and sociology; about one-third of the time must be devoted to the technical courses in home economics, with freedom given the student to select what she will study; and approximately one-third of the time may be used for general election of subjects, with a limit fixed as to the number of these which may be taken in the non-state colleges. It is expected that a large proportion of the courses chosen as free electives will be drawn from the courses offered by the College, since a student cannot otherwise acquire within the normal four-year period the technical training needed for most of the vocational outlets in the field of home economics. The chief result of the change will be, perhaps, to place greater responsibility on the student in planning her own course of study than has hitherto been the practice.

Some of the special features of the educational methods under examination were: a plan for the participation of a small group of senior students in the orientation of freshmen; the development of a course for training upperclass students for such experience; the consideration of a plan for extending this experience in participation of upperclass students to certain subject-matter courses; the participation of upperclass students and freshmen in the remaking of the orientation course; and the improvement of the arrangements for the orientation week-end for freshmen just prior to their registration in the fall. In order to determine whether the freshman week-end had been found really beneficial, three discussion periods with freshmen and upperclassmen were held later in the year, at which the values of the experience were discussed and assessed. The freshmen were unanimous in urging the continuance of the freshman week-end.

The faculty of Home Economics has approached the reconsideration of the courses of study and the methods of teaching from the standpoint of the interests, aptitudes, and responses of the students with respect to the courses offered, the more critical evaluation of the subjects, and the place and service of a college of home economics among the institutions which society has created to prepare youth for the experiences and the responsibilities of life. The point of view is presented at length in the report of the Directors of the College to the Dean, which is printed separately by the State and from which the following paragraphs by Director Flora Rose are drawn:

"One of the first situations which it [the College] must face fairly, a situation which many educators are now regarding with the utmost humility, is that schools and colleges as a whole are not meeting effectively the needs of modern society. Their efforts are still directed largely toward the training of the minds of young people, and they are not even critical always of the values to youth of the knowledges selected for this purpose. While schools and colleges have under-

gone comparatively slow changes in the past fifty to a hundred years, the industrialization of society has proceeded with very great rapidity. Life has become community-centered, and its problems and the complexity of its problems have increased enormously. The home, with its inevitably narrow interests and its greatly reduced activities, can no longer serve single-handed to prepare its children for the varied and difficult experiences which they must meet in a world whose horizons are now so immensely wide. It must be reinforced, supplemented, and guided.

"The school is the only institution that the community has developed which by virtue of its organization and its meanings can be made ready to assume the leading role in reorienting the home and in integrating the efforts of all the other forces in the community to work in the interest of youth's wholesome nurture."

"To achieve their destiny, schools and colleges must undergo profound and far-reaching changes. They must review their goals, reconceive their functions, and reconstruct their curricula in accordance with a new conception of social philosophy. They must see themselves as a functioning part of society, not as set apart from it. They must work with and through people, not over them. In working for the young, they must forswear the peddling of facts as a major concern of education, and must devote their energies and resources to determining the ways in which youth is learning to think and feel about life and the value of the facts which they are using to guide his thinking and feeling into creative channels that serve to develop him while they satisfy his needs and his desires."

"Only curricula of vital interest and value to youth will enable schools or colleges to work effectively with youth in a world as dynamic as that which our industrial civilization has produced. Not merely textbook teaching, but activities which are of vital importance to young people and to their relationship to the community, and in which they may participate freely, must be maintained by the school that hopes to function effectively in youth's upbringing."

"Some of the specific goals which all educational institutions must seek through reorganization of their curricula, whether school or college, whether liberal, professional, technical, or vocational, are: the personal development of the individual through creative activities in which he participates because they arouse his interests and discover and satisfy his felt needs; the socialization of the individual through sharing with others in experiences which acquaint him with the economic, political, moral, and intellectual conditions of his times and prepare him to function constructively in the affairs of his community; the preparation of the individual for economic independence; the awakening of the individual to a wide range of creative interests so that he may learn to make constructive use of an increasing leisure which may otherwise prove a bane to him and to civilization."

"For some years the staff of the New York State College of Home Economics has been conscious of the need for curricular reorganization and has been at work on various aspects of the problem. The first attack on the problem was made by individual instructors upon the courses that they were teaching. It led the instructors to abandon the old logical, subject-matter, textbook-recitation approach to the teaching problem, for a method focusing its attention on the discovery of the needs of students and the uses to which subject matter may be put in meeting these needs."

"While this functional approach to the teaching situation has not as yet been made completely in all courses or throughout the College, it has been extensive enough to have had far-reaching effects upon students. Students' thinking and feeling, that is, their attitudes, toward their work are changing, and, with changed attitudes, changes in practice long sought in the older methods of teaching are for the first time occurring naturally. Furthermore, students are beginning to take initiative in seeking information to satisfy needs which work in some given course has discovered to them. It has been a revelation to some instructors to find that curricular activities can be made as challenging to a student and as inwardly compelling to him as are extra-curricular activities, and that he can become equally absorbed in them. As a matter of observation it may be recorded that, through this new approach to an old problem, interest in factual material and desire for knowledge have increased greatly in the student body."

THE LEGISLATIVE AND OTHER APPROPRIATIONS

The Legislature of 1931 increased the appropriations to the State College of Home Economics by \$63,135, of which amount \$24,400 is to supplement previous appropriations for accessory instruction provided by Cornell University during 1929-30 and 1930-31, leaving a net increase of \$38,735 applicable to the year 1931-32. Of the latter amount, \$19,000 is for the increased cost of accessory instruction during 1931-32. There remains, therefore, the sum of \$19,735 for the general improvement of the work.

Most important of the items thus provided for is the first unit in the work in child development and parent education. For this the Legislature granted \$10,500, thus making permanent a part, approximately one-third, of the activity which has hitherto been carried on a special temporary grant from the Laura Spelman Rockefeller Memorial. During the coming two years the State will be requested to appropriate for the remainder of this activity. There is no alternative if this important educational enterprise is to be retained, as the temporary funds will not be available after the close of this period. The field of child development and parent education has assumed such large importance in the schools in recent years, that it has become essential that students of home economics, and especially those who are to teach, shall receive instruction in this field.

The Legislature having adopted the policy of allowing no increases in salaries in the state budget this year, the College had to be content with the omission of some greatly needed and fully deserved promotions, although a few slight advances were made in the clerical and other operative groups. General maintenance funds were enlarged by \$8560, the larger part of this being applied to the printing fund and to the maintenance of the summer school. The total state appropriation for 1931-32 is \$304,662.

The federal extension funds coming to the College will be \$3900 greater for 1931-32 than for the preceding year.

Throughout the year the development of the architects' plans for the new building for Home Economics was prosecuted by the architects and the college administration. The nature and diversity of the activities to be housed in the building created an intricate problem. The close of the year finds the work on the plans and specifications nearing completion. A building excellent in design and arrangement is in prospect. It is expected that bids will be called for by mid-summer. The legislative appropriation available for the building is \$985,000. The necessary equipment will cost about \$400,000, which is still to be authorized by the Legislature. Funds for the roads, walks, and grounds improvements are also yet to be obtained. It is customary for the State to defer the appropriations for these latter items until the structural work on a new building is well advanced, but the necessity for such supplementary grants is accepted by the Legislature when it appropriates for the erection of the building. This extensive new unit will relieve one of the centers of greatest need, in respect to housing, in the group of state institutions here.

A special temporary research fellowship in hotel administration was established during the year by the Harry Latz Service, Incorporated, of New York City, carrying a grant of \$400. The purpose of the fellowship is to enable the inauguration of a critical study of the travel objectives of hotel guests. The work will be done under the guidance of the professor of hotel administration.

CHANGES IN THE STAFF AND IN DEPARTMENTS

Prior to the opening of the fall semester, Dr. Edith MacArthur, assistant professor, engaged on research in nutrition, and Dr. Marguerite Wilker, extension professor in the Department of Family Life, resigned. At the close of the year, Miss Lucile Brewer, extension professor in foods and nutrition, and Miss Helen Hubbell, extension assistant professor in foods and nutrition, tendered their resignations. All of these persons, who had rendered important service to the institution over many years, were attracted by larger opportunities and emoluments elsewhere.

New appointments made during the year include the following:

Miss Olga Pauline Brucher as acting assistant professor in the Department of Foods and Nutrition, effective on September 19, 1930. Miss Brucher received her undergraduate training at Oregon State College and holds a master's degree from Teachers' College of Columbia University. Her experience includes service as a teacher of foods and nutrition, as a hospital dietitian, and as a technical adviser to a well-known commercial corporation.

Miss Doris Schumaker, formerly a member of the staff, was reappointed for the year 1931-32 as acting professor of home economics, to assist in the development of special teaching methods in home economics.

Miss Margaret Wylie, also formerly a member of the staff, was reappointed extension professor in the Department of Family Life, effective on October 1, 1930.

Louis Toth, of the firm of Horwath and Horwath, hotel accountants, who has given generously of his time as special lecturer in accounting since 1924, was appointed assistant professor of accounting in the Department of Hotel Administration, effective on July 1, 1931.

By action of the trustees of the University at their meeting in June, 1931, the instruction in hotel administration, which had hitherto been embraced in the Department of Institution Management, was given independent status as the Department of Hotel Administration. Professor Howard B. Meek was designated as head of the new department. The remainder of the work in institution management is continued as the Department of Institution Management, with Assistant Professor Katherine W. Harris as acting head.

PROPOSALS FOR SALARY IMPROVEMENTS

The first considerations in a teaching and research institution of collegiate or university grade are the educational and scientific qualifications and the spirit and morale of the staff. These are all-controlling. The product of the entire investment depends on them. The staff of the New York State College of Home Economics has been painstakingly assembled over a period of years, and is representative of the training acquired in many institutions. The College of Home Economics is the only higher institution created and maintained by the State to specialize in this department of knowledge, and it is charged by law with the whole field of higher education in this branch of learning, including both the technical and the professional aspects and the functions of research and extension service. Throughout the United States, and only to a lesser degree in Europe, home economics has become one of the rapidly expanding newer fields of knowledge. The subject has undergone an almost phenomenal institutional development throughout this nation. It is highly important that New York State shall recognize in the educational program for home economics a great opportunity as well as an obligation, and shall commit itself with intelligent vision and purpose to a well-considered and desirable program of growth and development.

The salaries now paid to the staff in Home Economics are wholly inadequate, and the turnover in the staff is continuous. In the past five years, twenty-one persons of the grade of professor and assistant professor have been lost to the institution, with a demoralizing effect on its work. The abler staff, the more insistent is the pressure exerted by outside institutions, industries, and other public services to draw persons from it. The replacement of personnel and the adjustment of the work imposed by changes make heavy demands on the time of administrative officers, and are disturbing to the teachers and embarrassing to the extension service.

In October of 1930, a plan was presented to the trustees of the University looking toward the establishment of higher salary scales for all of the employees in the state institutions at Cornell University. These proposals were approved by the Board of Trustees, and were transmitted by the Board to the Commissioner of Education and the State Board of Regents for consideration. Subsequently the proposals were approved by the State Board of Regents for transmission to the Governor and the Legislature.

For the College of Home Economics, the new scale proposes a salary range for heads of departments and professors from \$4500 to \$6500; for assistant pro-

fessors, from \$3250 to \$4500; for instructors, from \$1750 to \$3250; for assistants and part-time teachers and investigators rendering comparable service, from \$750 to \$1750. Appropriate scales are recommended for all other employees. These proposals mark a distinct advance over the salaries now available, and would afford substantial relief if recognized by the appropriating bodies.

The ranges here proposed are somewhat less than those proposed for the other state institutions at the University. Unfortunately, the policy of the State thus far has been to provide less compensation for the work in home economics than for other branches, so that our present point of departure is lower. It is exceedingly desirable that this policy shall not be long continued. The basis of compensation should be comparative qualifications and worth in the educational system. The salaries put forward for home economics are therefore regarded frankly as constituting a temporary stage in the process of bringing these salaries to a satisfactory basis. When the new levels have been reached, consideration must then be given to a further revision upward in order to bring the salaries to a basis fully comparable with other salaries in this and other recognized universities.

THE RESEARCH PROGRAM

The development of research in the College of Home Economics has been a matter of concern for many years. In this relatively new field of knowledge which has received widespread recognition in the schools, it is essential that the scientific bases be developed as rapidly as possible. The inadequacy of staff and funds in proportion to the requirements of the teaching program has made it impossible for the College to devote any appreciable proportion of the funds from state sources to research. Some relief has been found in recent years, however, in the use of the federal appropriation under the Purnell Act. Much consideration has been given to the inauguration of a research program on these funds, and an important beginning has been made. With an increase in research, there has also taken place a growth in graduate work in the College.

The research program has been scrutinized during the year with respect to eliminating investigations which may fall equally appropriately within the field of other educational and research organizations, and to concentrating the available resources upon investigations that deal with specific problems of consumers or with relationships between goods produced and consumer benefits, studies that have as their objective the discovery of consumer practices and their bearing upon the welfare of the consumer, and studies that attempt to discover conditions in the home which contribute to or detract from the well-being of the persons in it.

The investigations have been inaugurated chiefly in the fields of foods and nutrition, household management, and child development and parent education. As examples of the work in progress, a few titles of current investigations may be cited:

In the Department of Foods and Nutrition: (1) the chylomicron content and the total lipids of the blood plasma (as determined on dogs); (2) the anti-pellagra and anti-beriberi vitamins in two varieties of apples, Baldwin and Northern Spy; (3) practices in infant feeding, and the physical development of infants; (4) a comparative study in vitro of the digestion by pepsin of typical infant-feeding formulas in use at the present time.

In the Department of Household Management: (1) cost of living of farm families; (2) methods of household buying; (3) when to buy; (4) the financial aspects of household management.

In the field of child development and parent education: (1) case studies of pre-school children and their families, for the purpose of discovering the factors at home and at school which influence the behavior of children.

In the Department of Hotel Administration: (1) the analysis of financial statements of hotels (this project embraces this year approximately 180 reports of hotels of many types).

THE EXTENSION SERVICE

The spread of interest in the extension service is naturally cumulative, and the year has witnessed a further growth in demand and an increase in participation of the homemakers and their organizations in the State. Forty-one of the fifty

six rural counties of the State, and three of the larger cities, have maintained organizations of home-makers known as home bureaus, with which the College cooperates while at the same time seeking to serve other organized groups and individual homemakers not identified with organizations. The county and city home bureau organizations have been aided during the year by county and city appropriations in the amount of \$193,270. The average county appropriation is now \$3,944, and the average for the three cities is \$10,525. This is one measure of the extent of the local interest. Another is found in the fact that the average membership in the county bureaus is 593 and in the three city bureaus 878. During the past year, 27,016 women paid membership fees in their New York associations for the purpose of cooperating with the State College in the extension service.

On state and federal appropriations supplemented by the county funds, 87 technically trained workers are employed either in the counties or as extension specialists who go out from the College. More than 8000 volunteer local leaders have given generously of their time and efforts in an organized program for home and community improvement in 1039 communities definitely organized for the purpose. The paid staff made 863,851 direct teaching contacts during the year.

It is manifestly impossible in this report to give more than a slight indication of the extent of the work, such as may be revealed by the foregoing statistics. The educational program is very extensive, drawing upon the entire educational resources of the College and reflecting the expressed interests of the organized groups whose representatives participate intimately in the development of the programs. One of the most significant developments in country life is to be found in the growth in knowledge among farm women as a product of their organized association with the University in the extension service.

A somewhat detailed description of both the research and extension activities is included in the annual report of the College, published separately by the State, which is available to those who may be interested.

A. R. MANN,

Dean of the New York State College of Home Economics.

APPENDIX XI

REPORT OF THE DEAN OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR: I have the honor to submit the following report of the College of Architecture for the academic year 1930-31.

The total number of students registered in the College at the beginning of the year was 173, and at the end of the year 165. These numbers are between 10% and 15% below the average for the several years just past. Twenty-one students are now on leave of absence. This number is much greater than usual. The figures here given undoubtedly reflect the general financial stringency.

The number of applications for admission to next year's class is somewhat greater than last year but less than two and three years ago. This year we will have to refuse about 40% of the applicants. It is thus clear that while the numbers in the entering class can be kept normal, the numbers in the upper classes will be smaller, due to the abnormal number of withdrawals.

The Committee on Admissions has considered this situation carefully and has decided to treat it as temporary. This means that the entering class for next year will be kept to the same number as usual, namely, forty-five, even though the total number registered in the College is below our capacity. To do otherwise would involve reorganizing Freshman instruction on a three section basis. Further, a return to normal conditions would bring a return of many students now on leave of absence and the carefully balanced program of the College would be badly disarranged.

The outstanding problem of the year has been in the Department of Landscape Architecture, owing to the death of Professor E. Gorton Davis. As yet no attempt has been made to fill his place but the College has been fortunate in being able to set up a strong Alumni Advisory Council. This consists of Bryant Fleming, '01, and Gilmore D. Clarke, '13. Throughout the year their cooperation has been given most generously and their advice has been found most helpful. Through these men the College is making fortunate contacts with the two main phases of the work done in the Landscape field. I think we can feel secure that with their continuing assistance the difficult problems that are ahead of us in this Department, will be met and solved successfully.

The first matter to be taken up with the Council was a revision of the Landscape Curriculum. This has been worked out and approved by the Faculty and it will be put in effect next year. The main purpose of the revision has been to introduce more freedom of election. In this respect the curriculum in Landscape Architecture is now one of the best in the College.

During the year the Department of Landscape Architecture, with the assistance of Russell V. Black, '18, worked out a series of lectures on City and Regional Planning. These lectures were given by experts from outside the University staff. It so happened that the College of Engineering was planning a similar program and the course as finally given was sponsored jointly by the College of Architecture and the College of Engineering. This experience has proved beyond all question the possibility and desirability of coordinated action between the colleges. Professor Montillon, of this College, and Professor Crandall, of the College of Engineering, are now working on a modification of this course to be given next year, if possible.

Other lines along which the Colleges of Engineering and Architecture may well act in cooperation are now being examined. It seems clear that some fruitful ideas can be worked out in this way. Not the least of the values that may be realized lie in the greater understanding brought about between the interested members of the two Faculties.

In a number of other ways opportunities have been found to make cooperative arrangements with other colleges of the University and with the professional fields. A promising experiment has been started in cooperation with the work in The Drama, under the joint direction of Professor Drummond of the Arts Faculty and Professor Dunbar of this Faculty.

Some interesting contacts are also being developed outside the University through the problems selected for Senior Theses. One of the most valuable of these is with the National Capital Committee of the American Institute of Architects and the National Capital Park and Planning Commission. A number of our students have selected their Thesis subjects so as to fit in with the work these Committees are doing on the Washington plan. To date we have developed in this fashion six or seven sites. The Committees find the results so produced, useful to them and the students get the inspiration that comes from contact with these men and from the feeling that what they are doing is something more than just another problem. The same principle has also been worked out in other fields. Ninety per cent. of the Thesis problems done this year were developed after consultation with some one, not an Architect, but who is an expert with the field covered by the student's Thesis. Bankers, lawyers, clergymen, and business men of various sorts have been most generous with their time and most helpful in adding a touch of reality to these final problems.

For several years these reports have called attention to the need of another man on our Design staff. This appointment, happily, has just been made and it will permit the offering, next year, of two courses in the Theory of Design, primarily for students in other colleges. One of these will be for students in the College of Engineering, the other for non-technical students.

Some progress has been made in the matter of leaves of absence for the staff. This has been a most difficult matter to arrange heretofore and has been frequently mentioned in these reports. During this last year two members of the Faculty have been on leave and next year three others will be away for the whole or a part of the year. Of these leaves, only one is in the nature of a sabbatic

leave but the benefits to the College are about the same in any case and it is encouraging to feel that ways are being found to solve one of the problems that has been long standing.

The exhibitions held in the Morse Hall Galleries have been continued but on a reduced scale. The quality of the exhibitions has been good and the general interest seems to be well maintained. The financing of these exhibitions is still a matter which gives great concern. No provision has yet been made for next year and it is found to be increasingly difficult to manage well on this hand to mouth basis. It is to be hoped that before long a permanent fund can be set up to carry this work and that adequate and fire-safe quarters can be had, in a location which is more central on the Campus.

Last year in speaking of the instruction which the College is offering in the general field of the Fine Arts for students not registered in the College, I said that attendance in these courses might soon reach the limit. Already this has happened. Moreover, members of this Faculty and of the Faculty of Arts and Sciences are now preparing proposals which if adopted will undoubtedly lead to an important increase in the present demand for this sort of instruction. It would appear that we must at once begin to plan for more instruction in these fields and greater studio spaces.

The necessity of restricting admission to the College has forced attention to the problem of the dropped student. For a number of years the Faculty has been watching these cases closely and has gradually developed new ways of handling them. It is now required that a dropped student shall submit an application for readmission to the College, through the Committee on Admissions. The Committee is thus forced to justify its action in each case in the light of other applications. This has led to the requirement that before readmission the applicant must show; (1) That the intervening time since he was dropped has been so spent as to justify the assumption that the maladjustments that led to his being dropped have been eliminated and (2) That the new habits formed have been carried on long enough so that they are presumably well fixed.

As a matter of fact a student is rarely readmitted now in less than a year—in many cases it is more. In most cases the intervening time is spent in work along the line of the student's presumed interests. The cooperation of employers has been freely given and usually effective.

In this connection it is interesting to note what appears to be the effect of the selective admission system. This system was started in 1923 and hence came into full effect only in 1928.

During the years 1923-28, the average number of students dropped was 14.2. Since that time the average number has been 6.25 per year. It is too soon to give statistical results of the new practice with regard to readmission after dropping but from present indications it would appear that the number of such cases that finally turn out well is many times greater than before.

Recently the College received from Mrs. Muriel York a principal sum, the income from which is to be used to establish the Edward Palmer York Memorial Prize. This gift is most welcome and will serve the useful purpose of stimulating effort at the low period which so often comes in the Sophomore year.

I suppose no report of the work of this College could be considered complete unless it called attention to our woefully inadequate plant and equipment. Every inch of room at our disposal has been utilized and growth which is in sight has been denied for a long time. The over-crowding is particularly felt in the matter of office space. In some cases the condition is so bad as to actually preclude effective development of certain phases of the work of some members of the staff. However, quality standards are being maintained and we now have a complete skeleton organization which, when the opportunity is offered, can make the best possible use of a new physical layout.

Professor Martin has been asked to remain for the coming year which is beyond the ordinary term of his service. One of the difficult problems of the coming year will be that of finding someone capable of carrying on the tradition he has established in his Department.

GEORGE YOUNG, JR.,
Dean of the College of Architecture.

APPENDIX XII

REPORT OF THE DEAN OF THE COLLEGE OF ENGINEERING

To the President of the University:

SIR: I have the honor to present the following report upon the work of the College of Engineering for the year 1930-31.

The number of students registered in the College for the year just closed was somewhat greater than last year, the increase in the Freshman class being 46. So far the depression has not affected attendance, though the financial distress among the student body is quite marked. If the depression continues, it will no doubt reduce the number of upperclassmen.

Since presenting my last report, two important changes have occurred in the Faculty. The first was the retirement of Professor Ernsberger. This was a real loss to the College in several ways, for not only is Professor Ernsberger an excellent teacher and a well informed engineer, but he is also a man of exceptionally broad and liberal education. His influence upon both the curriculum and the student body will be greatly missed. The best wishes of his many friends in the Faculty follow him into his retirement.

The second important change was the resignation of Professor Barnes as Director of the School of Civil Engineering because of ill-health. Director Barnes has served in this capacity for ten years and much constructive work has been done in the school during his incumbency. It is hoped that with the removal of the load of administrative duties he will soon recover his health. He retains his professorship and teaching functions. The problem of finding a successor is not an easy one. During the past year the School has been administered by an Administrative Committee consisting of Professors Ogden, Urquhart and Conwell, with Professor Conwell as Chairman. This committee has administered the affairs of the college with skill and wisdom, and there has been no loss of efficiency due to these temporary arrangements.

The most important educational change in the work of the college was the inauguration of a new course in Administrative Engineering leading to the degree of Bachelor of Science in Administrative Engineering. For many years the Sibley School of Mechanical Engineering has offered a course in Industrial Engineering which contains as much instruction in economics, accounting, and kindred subjects as appeared to be permissible in a course leading to the degree of Mechanical Engineer.

Now it is a well established fact that the majority of the graduates of engineering colleges eventually find their way into administrative positions in engineering and manufacturing enterprises. Several reasons for this tendency have been advanced. Industry is becoming increasingly scientific in its background and practices, in many cases, so much so, as to require technical training for an understanding of its problems. Scientific and engineering methods of thought have invaded the fields of plant location, design and operation reaching now into the personnel problems of management.

But engineers as a rule are lacking in certain qualities and accomplishments which often prevent them from attaining as high a place in industry as their opportunities offer. Many of our graduates who have been successful in administrative positions have complained that their college course did not contain certain non-technical subjects that would have been of marked value to them in industry.

The recent investigation of engineering college curricula by the Society for the Promotion of Engineering Education revealed the fact that from the viewpoint of many alumni our courses are lacking in economic and historic content. On the other hand, there is an increasing demand for more thorough scientific training for the smaller group of graduates who are to engage in engineering design and construction; and there is, therefore, greater need for retaining the present

engineering degrees and making them even more significant technically, so far at least, as some options are concerned. If, therefore, a more liberal course is offered, the degree to which it leads should be differentiated from the present degrees of Civil Engineer, Mechanical Engineer, and Electrical Engineer.

The problem, can, of course, be solved in a fairly satisfactory manner by five and six year courses such as are now offered by the College of Engineering as optional programs to the regular four year courses in which there is little room for liberal studies. Experience here, and elsewhere, over a number of years indicates that such courses do not attract students. If for no other than economic reasons, a compulsory five or six year course in engineering seems to be inexpedient at this time.

The solution of the problem and the usual answer to this demand, as offered by most colleges, is a four year course in engineering with a senior option in industrial engineering, so called, somewhat similar to that now offered in Mechanical Engineering in this college. These courses are liberalized with English, Economics, etc., as far as the faculties of engineering are willing to go, and yet confer an engineering degree. Of late, however, a few colleges, elsewhere, have introduced broader courses, such as the one here discussed and no doubt the tendency is in this direction.

The following features of this new course, as worked out for the Sibley School of Mechanical Engineering, may be of interest.

(a) The entrance requirements are the same as those now required for entrance to the old courses including the higher mathematics.

(b) The credit hours required for graduation are 147, of which 91 are engineering or allied subjects now included in the regular four year course in Mechanical Engineering.

(c) The 56 remaining hours are made up mainly of courses in history, economics, finance, and similar subjects, practically all of which are now offered in other colleges of the University.

Lastly, this course is not intended to prepare men for commercial or business pursuits, but rather to prepare engineers for administrative positions in engineering and industrial life. The course is not based upon any hasty decision, but is the result of much thought upon the part of the faculty and the alumni. The demand of the latter for such a course has been insistent for a number of years and the faculty believes that the new departure will meet this need and fully justify itself.

It should be noted that the degree of Bachelor of Science in Administrative Engineering is available for all three schools that compose the College. The School of Electrical Engineering is presenting a course similar to that proposed by the Faculty of the Sibley School of Mechanical Engineering. The School of Civil Engineering has the matter under discussion.

As the field of industry broadens and becomes more complex, professional fields necessarily overlap and interlace in an increasing degree. This has already appeared in the relations of the College of Architecture to the College of Engineering. For some time past, it has been evident that there was common ground between the College of Architecture and the School of Civil Engineering in the field of city and regional planning and during the last academic year a joint course has been sponsored by these two groups with the aid of Mr. Russell V. Black, Arch. '18. The work was conducted principally through lectures by outside speakers and the experience indicates that this is a promising cooperative effort that will be of benefit to both groups. Certainly from the side of engineering such an outlet is much to be desired in a practical sense and the broadening influence of such joint effort is unquestionable. Other similar cooperative ideas are now under consideration by joint committees of the two colleges concerned.

On the more scientific side of engineering education, an effort is being made to work out a cooperative course with the Department of Physics looking to the development of a few highly trained men who wish to make research their life's work. The number of such men is necessarily small, but their influence may be very great. The College of Engineering already has a very satisfactory cooperative course with the Department of Chemistry.

In research the most important event of the year was the award of the Melville Medal to Professor Diederichs. This medal is awarded annually by the American Society of Mechanical Engineers to the person who presents the most outstanding paper based upon original research. The award in the case of Professor Diederichs was for a study of surge pressures in pipes carrying liquids. The research work in connection with this study was conducted with the aid of Mr. W. D. Pomeroy of the Gould Pump Works of Seneca Falls. The award is a well deserved recognition of Professor Diederichs' ability as a research engineer.

The cooperative research project subsidized by the Detroit Edison Company under the direction of Professor Karapetoff has been prosecuted vigorously during the year and the Detroit Edison Company has renewed its grant for the coming year. The research work in concrete under Professor Scofield has made progress in addition to some special work on the effect of freezing upon cement products for Colonel Hugh Cooper for which he has provided funds. Both Professor Schoder and Professor Switzer have continued their researches in hydraulics.

The depression has accented more than ever the value and need of the placement bureau. In Mechanical Engineering where this work was first inaugurated, and where therefore the contacts with industry are oldest and broadest nearly all of this year's graduates were placed in industrial positions. At the present writing only about half of the 1931 graduates in Civil and Electrical Engineering have found positions. There can be little doubt of the value of this work and an effort will be made to extend and strengthen it.

DEXTER S. KIMBALL,

Dean of the College of Engineering.

APPENDIX XIII

REPORT OF THE ADMINISTRATIVE BOARD OF THE SUMMER SESSION

To the President of the University:

SIR: On behalf of the Administrative Board of the Summer Session I have the honor to report as follows for the session of 1930:

ATTENDANCE

	<i>Men</i>	<i>Women</i>	<i>Total</i>
In Summer Session	923	590	1513
In Summer School of Agriculture	403	485	888
	<hr/> 1326	<hr/> 1075	<hr/> 2401
Less double registrants	53	57	110
	<hr/> 1273	<hr/> 1018	<hr/> 2291
Summer Session of Law	89	5	94
	<hr/> 1362	<hr/> 1023	<hr/> 2385

ANALYSIS OF GRADUATE STUDENTS

Graduate students in Summer Session	176	124	300
Graduate students in Agriculture	64	41	105
Graduate students in both	35	20	55
	<hr/> 275	<hr/> 185	<hr/> 460

ANALYSIS OF SUMMER SESSION REGISTRANTS

Undergraduates of Cornell	194	45	239
Undergraduates of other institutions	142	152	294
Students holding Cornell degrees	61	46	107
Students holding degrees from other institutions	251	215	466
Students holding Normal School diplomas	22	68	90
	<hr/> 670	<hr/> 526	<hr/> 1196

TEACHERS

	1927 <i>Total</i>	1928 <i>Total</i>	Men	1929 <i>Women</i>	<i>Total</i>	Men	1930 <i>Women</i>	<i>Total</i>
High School	252	220	70	137	207	94	135	229
Grades	201	162	2	140	142	16	91	107
Colleges	64	76	55	30	85	48	28	76
Normal Schools	2	2	3	5	8	—	3	3
Superintendents	1	4	2	1	3	3	—	3
Principals	13	18	16	4	20	13	4	17
Supervisors	7	6	2	3	5	2	4	6
Kindergarten	9	5	—	5	5	—	4	4
Others	11	24	12	13	25	18	16	34
Junior High Schools	—	31	7	39	46	5	20	25
Junior Colleges	—	1	—	—	—	1	—	1

GEOGRAPHICAL DISTRIBUTION

	1929	1930
New York	1311	1285
Pennsylvania	219	249
New Jersey	126	93
Other Middle States (including Md., D. C., Del.)	167	78
New England	106	144
Southern States	133	142
West Virginia	8	22
Virginia	20	29
North Carolina	11	19
South Carolina	13	14
Georgia	13	6
Florida	14	15
Alabama	11	1
Mississippi	12	4
Kentucky	4	5
Tennessee	10	6
Louisiana	10	4
Arkansas	4	4
Texas	3	12
Central States	110	116
Ohio	51	50
Indiana	10	14
Michigan	22	23
Illinois	27	29
Middle West	50	44
Missouri	10	8
Kansas	3	5
Wisconsin	8	2
Minnesota	6	4
Iowa	6	12
Nebraska	11	2
Oklahoma	5	10
Wyoming	1	1
North Western and Pacific Coast	18	27
South Dakota	1	1

North Dakota.....	—	1
Montana.....	—	3
Colorado.....	4	5
Utah.....	—	2
Arizona.....	2	0
Washington.....	1	1
Oregon.....	2	2
California.....	7	12
Idaho.....	1	0
Foreign Countries.....	81	97
	<hr/> 2321	<hr/> 2291

SUMMER SESSION ATTENDANCE BY COURSES

<i>Subject</i>	<i>1924</i>	<i>1925</i>	<i>1926</i>	<i>1927</i>	<i>1928</i>	<i>1929</i>	<i>1930</i>
Architecture.....	—	—	—	—	17	34	19
Astronomy.....	16	21	22	19	24	14	16
Chemistry.....	165	211	201	205	213	264	255
Drawing and Painting.....	60	67	54	59	107	83	87
Economics.....	277	288	243	252	210	242	227
Education.....	392	434	500	365	388	373	375
Engineering							
Shop Work.....	13	—	—	—	—	—	—
Drawing.....	13	7	15	10	11	4	5
Descriptive Geometry.....	27	35	35	38	29	20	19
Kinematics.....	54	34	25	20	20	29	18
Materials of Construction..	—	—	—	26	29	32	33
Mechanics.....	116	92	83	92	88	75	71
Hydraulics.....	26	16	22	27	14	23	22
Structural Engineering.....	115	88	96	105	111	99	94
English.....	595	611	607	590	561	521	309
Geography.....	280	231	175	220	191	160	140
German.....	75	62	69	51	63	88	67
Government.....	57	46	58	40	64	41	27
Greek.....	—	—	10	5	16	26	14
Health Education.....	—	28	37	31	24	19	32
History.....	245	248	269	320	355	268	211
Hygiene.....	12	22	—	—	—	—	—
Latin.....	66	60	24	75	48	45	42
Mathematics.....	293	220	246	236	388	286	250
Music.....	114	104	122	162	106	157	76
Philosophy.....	115	120	125	115	102	76	90
Photography.....	—	—	—	—	—	—	16
Physical Education.....	153	50	113	188	107	159	138
Physics.....	132	100	129	110	114	130	148
Physiology and Biochemistry..	—	—	—	—	—	4	12
Psychology.....	208	180	183	117	120	109	118
Public Speaking.....	146	147	183	168	163	209	146
Romance Languages							
French.....	185	210	214	202	175	182	112
Spanish.....	75	63	59	62	54	38	34

SUMMER SCHOOL OF BIOLOGY

Botany.....	47	49	61	46	67	71	59
Zoology.....	83	75	90	70	95	118	98
Botany and Zoology (courses dealing with both plants and Animals).....	20	13	32	27	19	25	16
	<hr/> 150	<hr/> 137	<hr/> 183	<hr/> 143	<hr/> 181	<hr/> 214	<hr/> 173

PRESIDENT'S REPORT

SUMMER SCHOOL OF LAW

First Term.....	62	105	84	77	96	78	86
Second Term.....	63	100	79	60	84	68	68
	<u>125</u>	<u>205</u>	<u>163</u>	<u>137</u>	<u>180</u>	<u>146</u>	<u>154</u>

COST PER STUDENT HOUR (1930)

<i>Subject</i>	<i>Student Hours</i>	<i>Cost</i>	<i>Cost per Student Hour</i>
Architecture.....	95	\$750	7.89
Astronomy.....	40	375	9.38
Chemistry.....	683	5675	8.31
Drawing and Painting..	144	1500	10.42
Economics.....	512	2650	5.17
Education.....	660	4825	7.31
Engineering.....	851	7550	8.87
Descriptive Geometry.	49	575	11.73
Mechanical Drawing..	15	750	50.00
Mechanics.....	317	2075	6.54
Hydraulics.....	64	750	11.72
Materials of Construc-			
tion.....	90	750	8.33
Structural Engineering.	272	1900	6.98
Kinematics.....	44	750	17.05
English.....	626	4475	7.14
Geography and Geology.	218	3100	13.76
German.....	112	1675	14.95
Government.....	48	750	15.62
Greek.....	26	575	22.12
History.....	340	3775	11.13
Hygiene.....	54	1325	24.54
Latin.....	84	1500	17.85
Mathematics.....	744	6475	8.70
Music.....	140	3275	23.30
Philosophy.....	142	1725	12.15
Physical Education.....	99	2300	23.23
Physics.....	391	4400	11.25
Psychology.....	222	2375	10.69
Public Speaking.....	222	3425	15.42
Romance Languages.....	348	4075	11.71
French.....	268	2675	9.98
Spanish.....	80	1400	17.50
Total.....	<u>6801</u>	<u>68550</u>	<u>10.08</u>

You will notice that the total attendance upon all departments offering Summer Session work was 2385 as against a total for the session of 1929 of 2415 and the Summer Session of 1928 of 2150. It is gratifying to note that the total registration held so closely to the record figure of 1929. There was, however, a decrease in the Summer Session proper, the figure this year being 1513 as against 1709 for 1929. There was an increase in the Summer Session of Agriculture, the figure being 888 for the year as against 764 for 1929. The decrease in the Summer Session was almost entirely in the undergraduate enrollment, undergraduates of Cornell showing a falling off of 111 and undergraduates of other institutions a decrease of 61. The graduate enrollment showed an increase of 10. There are three factors which operated to bring about the decrease: first, the increase of tuition from \$50 to \$60; second, the prevailing business depression which made it impossible for many parents to finance Summer Session work for their children; and third, an increasing insistence upon good academic standing on the part of the candidates. As a result of the financial situation a certain group of under-

graduates who could secure credits in the State Summer Schools registered with those colleges in order to take advantage of the smaller tuition fee where they could apply the credits toward their college courses. This in part accounts for the increase in the Summer Session of Agriculture. On the other hand there were 466 students enrolled holding degrees from other institutions as against 396 such students in 1929 and 278 in 1928. This steady decrease is in part due to the fact that many institutions formerly known as normal schools have now become teachers colleges giving three and four year courses and making unnecessary supplementary work in Summer Session. There was a slight increase in the number of students holding Cornell degrees, there being 107 this year as compared with 105 in 1929, and 85 in 1928. This again indicates good holding power for our own graduates. The total number of public school teachers again showed some decrease, there being 505 in 1930 as against 536 in 1929. The same trend which has been shown for the past three years continued, that is the number of men teachers increased and the number of women teachers declined: 123 men in 1927, 142 men in 1928, 169 men in 1929 and 200 men in 1930. The figures for women have been 427 in 1927, 402 in 1928, 377 in 1929, and 305 in 1930. The apparent cause of the increase of men as against women teachers seems to be that many of the women teachers have been coming to Summer Session with the idea of repairing inadequate preparation either in professional requirements or subject matter, and with increasing insistence upon proper undergraduate preparation the need for summer work has been lessened for the classroom teacher while at the same time male teachers are feeling increasingly the need for better professional preparation, especially in the field of school administration, beyond the undergraduate level. It might be noted that many other Summer Sessions as indicated by preliminary reports of registration also showed a decrease: California, Chicago, Clark, Kansas, Minnesota, New York University, Ohio, Peabody, Stanford, and Virginia. Of these California, Chicago, Clark, Minnesota, New York University, and Virginia showed decreases in 1929. Several institutions which reported a year ago had not reported this year, so it is probable that the number showing a decrease is larger than indicated. It is, therefore, ground for encouragement that our own decrease was so small, especially in the light of the marked increase in 1929. It was the opinion of the entire staff of instruction that the registration this year advanced again a step forward in personnel. It was everywhere remarked that it was easily the best Summer Session that we have known, in respect to work accomplished and serious application. It is gratifying to report a continued improvement in this matter.

The table showing attendance by courses remains relatively constant, the most marked fluctuations being in courses where in the past large numbers of undergraduates had been enrolled which would naturally run smaller this year on account of the smaller number of undergraduates registered generally. The only disappointing report is that in the Department of Music where, with a larger staff and a better offering, the enrollment was the smallest we have yet known. This is difficult to explain, especially as more advertising was done for that department than for any other.

The table showing cost per student hour for each department shows in general somewhat higher cost than in the past. This was anticipated, for a larger offering of graduate courses was made, necessitating smaller classes and a corresponding increase in cost. With a general trend toward larger graduate and smaller undergraduate enrollment the cost of instruction will necessarily increase and this fact must be kept in mind in estimating future budgets. With the increase in tuition it is probable that the Summer Session of 1930 will come closer to being self-supporting than did the session of 1929. It is, however, too much to expect that with increased graduate enrollment the session can be entirely self-supporting, especially in the light of remission of fees for candidates for higher degrees after their second summer.

The courses in Education were changed somewhat in character to meet the needs of graduate students in that field and despite the smaller number of teachers registered the number taking work in Education was increased over 1929. One factor involved in this increase was a considerable enrollment of students desiring

to become candidates for the new degrees in Education. There is every reason to believe that the action of the Graduate Faculty and the Division of Education in sponsoring these degrees was wise and that a wider opportunity is thus offered for administrative officers and teachers in public schools to secure the needed type of graduate work. The issuance of the college graduate limited teachers certificate by the State of New York was discontinued on September 1, 1930 so that in the future there will be little point in offering courses in Education of an undergraduate rating unless it seems desirable to develop courses in Education for undergraduates—something that up to this time has not been stressed. It is probable that the wiser course will be to strengthen the graduate work. This, however, is a question to be decided by the Department of Education in planning the offering for the coming year.

It is believed that the action of the Board of Trustees in increasing tuition fees from \$50 to \$60 for the session was justified. The decrease in registration resulting from this reason alone was probably very small and it has made possible a better financial showing than could have resulted under the former fee. It is hoped that registration the coming summer will increase to a point where some upward salary revisions may be made for the staff. There has been no increase in staff salaries for four years. An increase, even though it may be slight, would be extremely helpful in holding our own best men who are now attracted elsewhere by higher stipends, and in making it easier to get first class men from other institutions. There should be at least a somewhat greater flexibility in the salaries paid visiting professors so that when need arises a really first class man can be brought from the outside.

Mention should be made of a course offered in Photography made possible through the courtesy of the Eastman Kodak Company of Rochester, New York, without expense to the session. This course was largely attended and the results extremely satisfactory. It is hoped that some arrangement can be made for the continuance of this work. Mention should also be made of the fact that a course in Physiology dealing with the Conditioned Reflex was made available by Professor Liddell without expense to the University. This course carried on the work begun in 1929 by Professor Kupalov of Leningrad, Russia. The course was well attended and it would seem that it might be made a permanent offering of advantage to the session.

The provision made by the Board of Trustees whereby graduate students working under personal direction were allowed to carry courses in the Summer Session on payment of a pro rata fee apparently justified itself and relieved the session of some embarrassments which have arisen in the past.

The morale of the student body continued to improve, it being noteworthy that for the first time in the past ten years the Committee on Student Affairs was not convened to consider student delinquencies. It is the belief of your board that the morale in the summer is at least as good, if not better, than during the regular year.

The Administrative Board wishes to express its appreciation of your continued cooperation in all measures involving the success of the session and is anxious to receive any suggestions or recommendations you may have for its guidance.

R. H. JORDAN,
Chairman of the Summer Session.

APPENDIX XIV

REPORT OF THE DEAN OF WOMEN

To the President of the University:

SIR: I have the honor to submit to you the following report of the Dean of Women, for the year 1930-31.

The housing situation for women students seemed solved with the completion of Balch Halls two years ago, but at registration time in September 1930 the Office of the Dean of Women was confronted with the problem of completely filled dormitories and eighteen homeless students. This fact necessitated arranging for one house outside the campus for the year. Although the total enrollment was the same as that of the preceding year the inability to house all was due to the fact that thirteen less than the previous year lived in sorority houses, and five less worked in town for their board and room. To obviate a recurrence of this housing situation, plans are made to use the University house at 308 Wait Avenue hereafter for any in excess of the dormitory or sorority house capacity.

The Head Residents for the dormitories for the year 1930-31 were the same as the previous year: Risley, Miss Gertrude Nye; Sage, Miss Grace Seely; Balch, Unit I, Miss Mary Cornell; Balch, Unit II, Mrs. Carolyn V. Powell; Balch, Unit III, Mrs. Maude Biggs; Balch, Unit IV, Mrs. Mabel Conger.

The enrollment by classes and residences for the first term 1930-31 was as follows:

	1931	1932	1933	1934	Total
Sage.	1	55	5	121	182
Risley.	—	58	6	131	195
Balch.	133	11	163	5	312
Sorority Houses.	80	65	76	1	222
123 Highland Place.	—	4	1	13	18
Homes in Ithaca.	46	32	35	39	152
Special Permission to live in Ithaca homes.	6	7	—	1	14
Earning Room and Board.	7	11	20	11	49
Negro Women.	3	—	—	—	3
Risley Cottage.	—	1	—	1	2
	276	244	306	323	1149

In addition to the regular undergraduate students there were fourteen special students and one hundred and seventy-nine graduate students among the women. The graduate women were housed at 308 Wait Avenue, at 613 Thurston Avenue, and at approved rooms in town.

FINANCIAL SITUATION

The general economic situation throughout the country brought extra problems to this office. Many requests for employment and loans were made, and the Dean of Women and her assistants had numerous conferences with individual students to help solve the difficulties with work, loans, or scholarships.

The Federation of Cornell Women's Clubs has in past years raised some \$33,000 toward a dormitory. Since the housing of undergraduate women is at the present time adequately provided for, this organization has consented to have this sum serve as a scholarship fund (the interest only to be used) and the trustees have approved the plans for a five-year period. This fund and the accumulated interest on another fund given for the same purpose have been of inestimable value in easing financial burdens this past spring. Scholarships varying from \$25 to \$300 have been granted to thirty-three seniors and to two juniors. Several of the Cornell Women's Clubs have sent checks for \$25 to \$100 this spring, notably Rochester, Syracuse, Pittsburgh, Buffalo.

the student adjust herself to her situation. Miss Simonds was also in charge of housing for graduate women, and visited the rooms offered for rent to them, making necessary arrangements with householders and so forth. This year she has worked with the W. S. G. A. Chairman of Organized Groups. Her report follows. Mrs. Elizabeth W. Leonard has completed her first year in the office as Assistant to the Dean of Women. She has had charge of the approving of chaperons for social affairs, and since there were approximately 600 of these, this has meant thousands of telephone calls, conferences, and notifications to dormitories. She has had charge also of the office records, keeping them up-to-date, and of the sign-out slips, checking, conferring with the presidents and vice-presidents of the dormitories and houses. Both assistants use the dictaphone and typewriter so they handle directly all correspondence regarding their respective departments, and the correspondence of the Dean of Women when they have sufficient time. Arrangements are being made to secure part time assistance next year to handle the correspondence, filing, etc., so that more time can be released for the conferences with students which they request. With the addition of another office this past year, it has been possible to do more, and more efficient work than heretofore because of additional space and privacy.

EMPLOYMENT

The Assistant in charge of employment has, during the past year, tried particularly to make the students understand the desirability of doing as little outside work as possible while studying in the University. She has made an effort to assist the women students in planning their finances in such a way that they will have to give a minimum of time to the business of earning expenses and a maximum to the business of securing an education. For this reason the total number of employment calls filled has decreased since the previous year, as has also the total number of women students earning their room and board in private families. Whether or not this decrease can continue during the coming year it is impossible to say. Probably the general financial situation of the country will make it necessary for more students to assist themselves. During the year 1930-31, 292 women (slightly more than one quarter of all the undergraduate women) were doing part time work. A total of 52 earned their room and board in private homes, 117 more earned board by waiting table in the dormitories and Willard Straight Hall, 40 did other part time work in the dormitories—elevator duty, desk duty, etc.; and 83 did part time work in private homes and offices. The 83 women doing part time work outside of dormitories filled 203 part time calls directly through the Dean of Women's office. Many were called directly by the employer following the first call arranged by this office. In all, 128 different employers applied to the office of the Dean of Women for assistance in obtaining help, and received such help. Of the 203 calls filled directly from this office, 172 were for purely domestic work and 31 were for office work of one kind or another.

SPECIAL STUDIES

Several small bits of research have been made in the office the past year. A study of the number and type of social affairs held on the campus was prepared for the use of the special faculty committee on social life. A study was also made of the freshman class of the year 1929-30, the individual records and the records by entrance ages, 16, 17, 18, 19 years. This included their scholastic records, employment, social life, activities, health, etc. and has been most interesting and valuable in planning for future freshman classes. The Department of Education which gives the mental tests to freshmen has asked for cooperation in obtaining data for them so that they may study the value of mental tests. This data will be compiled for the department in the early fall of 1931. Many more studies of value could be made if there were sufficient assistance in the office. The office expects to be able to accomplish some of these with the additional part time person this coming year.

The Dean of Women herself has been able this year to hold more personal conferences with students than heretofore, and has spent a great deal of time

working out individual daily schedules. This has helped a number increase their self-discipline and ability to handle subject matter and time. The Head Residents have been of inestimable value in giving friendly interest and counsel to the students living in their respective dormitories. The Dean of Women has held frequent conferences with them both collectively and individually. The Balch Halls staff, including the Head Residents, the housekeepers, dietitians, and Mrs. Grace, and the Dean of Women have had frequent meetings to plan for the most efficient management of the building itself and the best methods of developing the desired atmosphere and traditions among the students.

WOMEN'S SELF GOVERNMENT ASSOCIATION

The Women's Self Government Association has been most cooperative during the past year and will continue to do so under the leadership of the new president, Miss Edythe King. Among other things this organization takes charge of the freshman life upon the campus with carefully planned social affairs, group and mass meetings, and individual sponsoring through their 'junior grandmother' system. This helps materially in giving freshman women the right start at Cornell. Each entering girl receives from this organization a personal letter before arriving, copies of the W. S. G. A. handbook, Freshman Bible, W. A. A. bulletin and so forth so that she will be somewhat prepared for the organization of which she automatically becomes a part upon registering.

A decided change was made this past year in the religious organization for women, the Y. W. C. A. which has existed here for many years. The name has been changed to the Cornell Women's Religious Association as it was felt that benefits, otherwise impossible, would accrue from being a part of the Cornell United Religious Work. Mrs. Cassady who has been the Secretary the past year will not return next year. The position of Secretary of the C. W. R. A. for the coming year will be filled by Mrs. Judith Andrews of New York.

SUMMER SESSION

The Summer Session of 1930 was attended by 987 women, representing 130 different colleges and 38 different states. These women were housed in the six dormitories (Balch Halls being used for the first time during a Summer Session) seven sorority houses, and in approved (for graduate women) houses in town. With some 300 women in Balch on the campus, which number had heretofore been in private homes throughout the city, it was quite possible to change materially the character of Summer Session life. Teas, dinners, picnics, musicales, dances, were held, and the entire student body acquired more of an air of an established and organized group than has been possible in the past.

R. LOUISE FITCH,
Dean of Women.

APPENDIX XV

REPORT OF THE DIRECTOR OF ADMISSIONS

To the President of the University:

SIR: I respectfully submit my report for the Office of Admissions, covering entrances to the seven undergraduate colleges of the University in September 1930.

TABLE I

The following table shows the number of applications and the number admitted in September 1930 to each of the colleges. Only those have been counted as applicants who actually filed formal applications for admission as regular students; persons indicating intent to enter, whether by letter or by interview, have not been included, nor have so-called "special students." Under "admitted" are included those who met all university requirements and the particular requirements of the college concerned and who were notified that they were entitled to matriculation as regular students—whether they afterwards registered or not.

A. Applications for entrance direct from secondary institutions:

<i>College</i>	<i>Applied</i>	<i>Admitted</i>
Arts and Sciences		
A.B.	1120	520
B.Chem.	67	36
Agriculture.	391	211
Home Economics.	265	114
Hotel Administration.	115	39
Veterinary.	59	43
Architecture.	67	26
Engineering. ..	461	287
Total.	2545	1276

B. Applications for entrance by transfer with credit towards advanced standing:

<i>College</i>	<i>Applied</i>	<i>Admitted</i>
Arts and Sciences		
A.B.	211	77
B.Chem.	19	9
Agriculture.	67	33
Home Economics.	41	17
Hotel Administration.	44	21
Veterinary.	17	12
Architecture.	21	11
Engineering.	91	42
Total.	511	222

<i>Total</i>	<i>Total</i>
<i>Applications</i>	<i>Admitted</i>
3056	1498

The number of applications in 1930 was 371 less than in 1929; but the number admitted in 1930 was 93 more.

TABLE II

The 1276 students admitted without credit towards advanced standing (see I, A) divide as follows according to the method by which each one offered the greater part of his entrance credit:

Certificate.....	469
Regents.....	777
Examination.....	1
College Board.....	29
	<hr/>
	1276

Many of the 1276 students offered credit by more than one of the four methods. The following shows the number offering credit by any one of the four:

Students presenting credit by Certificate.....	630
“ “ “ “ Regents.....	850
“ “ “ “ Examination.....	103
“ “ “ “ College Board.....	77
Schools using Certificate Privilege September 1930.....	253

TABLE III

ENTRANCE EXAMINATIONS

In September 1930 entrance examinations furnished by the College Entrance Examination Board were used for the first time. The answer-papers were read and graded by members of the Cornell Faculty.

For these examinations permits were issued to 245 individuals. Out of these, 103 completed the requirements and were enabled so to enter, 116 were not admitted, and 26 were old students working off "conditions" or trying for re-entrance. The following table shows the distribution of these individuals among the colleges to which they were applying:

	<i>Made entrance</i>	<i>Not Admitted</i>	<i>Total</i>
Engineering.....	52	26	78
Chemistry.....	5	3	8
Arts and Sciences.....	16	33	49
Agriculture.....	15	37	52
Home Economics.....	7	3	10
Architecture.....	5	6	11
Hotel Administration.....	3	5	8
Veterinary.....	—	1	1
Course not stated.....	—	2	2
	<hr/>	<hr/>	<hr/>
	103	116	219
Old students.....			26
			<hr/>
			245

The following table shows the number of passes and failures for each subject:

<i>Subject</i>	<i>Passing grades</i> (60 or above)	<i>Failing grades</i> (below 60)
English.....	26	8
Latin —2 yrs.....	4	6
“ —3 “.....	2	9
“ —4th yr.....	1	—
German — 2 yrs.....	—	4
“ — 3 “.....	2	2

French — 2 yrs.	11	13
“ — 3 “	7	6
“ — 3rd yr.	2	12
“ — 4 yrs.	1	—
Spanish—3 yrs.	4	5
Ancient History	2	3
Modern History	1	2
American History and Civics.	13	9
Elementary and Intermediate Algebra.	9	20
Elementary Algebra and Plane Geometry.	1	3
Plane Geometry.	10	17
Solid Geometry.	12	13
Solid Geometry, Advanced Algebra, Trigonometry.	—	1
Solid Geometry, Trigonometry	4	9
Advanced Algebra.	7	1
Plane Trigonometry	10	9
Chemistry.	4	2
Physics.	—	6
Physical Geography.	3	—
Bookkeeping.	1	—
Drawing.	4	—
Manual Training.	2	3

For purposes of comparison I append the figures for the entrance examinations of September 1929, the last year when examinations made by the Cornell faculty were used.

Total individuals trying examinations, 1929.	232
Applicants completing requirements by examination.	112
Applicants trying examinations, but failing to complete requirements thereby.	120
The proportion of passing grades, for all subjects, to the total number of grades reported, 1929.	32%
The percentage of passing grades, for all subjects, to the total number of grades reported, 1930.	32%

TABLE IV

Freshmen admitted from private schools in the United States:

	1929	1930
From 32 schools in New York State.	50	65
From 27 “ “ other Middle States.	38	35
From 15 “ “ New England States.	22	22
From 27 “ “ other States.	31	31
Total (about 1/8 of Freshman class).	141	153

For the 153 entering in 1930, the fifth of the class in which the student graduated was known in 101 cases. Of these 101, the percentages graduating in the highest, second, third, fourth, and lowest fifths of the class are as follows:

	Highest	2nd	3rd	4th	Lowest
New York.	42%	29%	13%	7%	9%
Other Middle States.	41%	41%	9%	4.5%	4.5%
New England.	21.4%	42.8%	21.4%	7.2%	7.2%
Other States.	45%	40%	5%	10%	0%
Total.	39.8%	35.8%	11.8%	6.8%	5.8%

TABLE VI

The following table shows the geographical distribution of applicants for admission in September 1930.

New York City.....	281	North Carolina.....	3
Brooklyn.....	284	North Dakota.....	1
Other towns in New York State.....	1438	Ohio.....	116
		Oklahoma.....	4
New York State.....	2003	Pennsylvania.....	215
Alabama.....	2	Rhode Island.....	7
Arkansas.....	2	South Carolina.....	10
California.....	32	South Dakota.....	1
Colorado.....	5	Tennessee.....	9
Connecticut.....	68	Texas.....	12
Delaware.....	9	Vermont.....	12
District of Columbia.....	38	Virginia.....	12
Florida.....	9	Washington.....	3
Georgia.....	7	West Virginia.....	8
Idaho.....	1	Wisconsin.....	14
Illinois.....	57		
Indiana.....	22	Foreign countries:	
Iowa.....	10	Brazil.....	1
Kansas.....	4	Canada.....	11
Louisiana.....	3	Canal Zone.....	1
Maine.....	9	England.....	2
Maryland.....	21	Germany.....	1
Massachusetts.....	68	Hawaii.....	3
Michigan.....	21	India.....	1
Minnesota.....	7	Korea.....	1
Mississippi.....	2	Mexico.....	1
Missouri.....	19	Porto Rico.....	5
Montana.....	3	Scotland.....	2
Nebraska.....	4	Spain.....	2
New Hampshire.....	15	Turkey.....	1
New Jersey.....	231		
New Mexico.....	2	Total.....	3133*

*This total includes special students not included in Tables, I, A and B.

EUGENE F. BRADFORD,
Director of Admissions.

APPENDIX XVI

REPORT OF THE REGISTRAR

To the President of the University:

SIR: I have the honor to submit herewith my first annual report as Registrar of the University. The report covers the academic year 1930-31 including the Summer Session of 1930 and for convenience work between the end of the second term 1929-30 and July 1, 1930, but excluding work between the end of second term of 1930-31 and July 1, 1931.

THE YEAR

	Days in Session	Sun- days	Holi- days	Vaca- tion	Total
Summer vacation, June 16-July 7.....	..	..	..	18	18
Summer Session, July 5-Aug. 16.....	36	6	..	..	42
Summer vacation, Aug. 16-Sept. 22...	..	..	..	37	37
First term, Sept. 22-Feb. 4.....	100½	15	..	..	115½
Thanksgiving vacation, Nov. 27-Dec. 1..	..	..	..	4	4
Christmas vacation, Dec. 20-Jan. 5.....	..	..	..	14½	14½
First term vacation, Feb. 5.....	..	..	..	1	1
Spring vacation, Mar. 29-Apr. 6.....	..	..	..	8½	8½
Second term, Feb. 6-June 15.....	104½	16	1	..	121½

*ATTENDANCE AT SUMMER SESSIONS, ETC.

	Men	Women	Total
Graduate—Personal Direction.....	175	34	209
Graduate School, 1930 SS—State Summer Session.....	298	178	476
Summer School of Law, first term, 1930.....	82	3	85
Summer School of Law, second term, 1930.....	59	3	62
Short Winter Agriculture, 1930-31.....	125	4	129
School for Club Agents, 1930-31.....	11	3	14
Summer Session, 1930.....	837	560	1397
State Summer Session, 1930.....	367	483	850
Totals.....	1954	1268	3222

*DUPLICATES

	Men	Women	Total
Graduate School—Arts.....	16	1	17
Graduate School—Agriculture.....	2	1	3
Graduate School—Home Economics.....	2	—	2
Graduate School—Medicine.....	1	—	1
Graduate School—Engineering.....	3	—	3
Graduate School—Law.....	1	—	1
Arts—Medicine.....	13	1	14
Arts—Agriculture.....	5	2	7
Arts—Engineering.....	6	—	6
Agriculture—Veterinary.....	1	—	1
Agriculture—Home Economics.....	1	1	2
Agriculture—Engineering.....	1	—	1
Special Agriculture—Arts.....	1	1	2
Architecture—Arts.....	2	1	3
Architecture—Engineering.....	1	—	1
Arts—Home Economics.....	—	1	1
Engineering—Architecture.....	1	—	1

*To accompany the inserted table showing attendance for the year 1930-31.

Home Economics—Engineering.....	1	—	1
Graduate School (Personal Direction)—Graduate.....	80	15	95
Graduate—Graduate.....	47	10	57
Graduate in S.S.—Graduate (Personal Direction).....	11	3	14
Graduate—Summer Session of Law, first term.....	1	—	1
Graduate—Summer Session.....	228	127	355
Graduate—State Summer Session.....	105	52	157
Summer Session—Special Agriculture.....	1	—	1
Summer Session—Special Home Economics.....	—	1	1
Summer Session—Special Arts.....	1	—	1
Summer Session—Medicine.....	1	—	1
Summer Session—State Summer Session.....	100	86	186
Summer Session—Arts.....	95	28	123
Summer Session—Agriculture.....	8	1	9
Summer Session—Home Economics.....	2	16	18
Summer Session—Veterinary.....	2	—	2
Summer Session—Engineering.....	148	1	149
Summer Session—Special Architecture.....	1	—	1
Summer Session—Architecture.....	18	3	21
State Summer Session—Arts.....	1	6	7
State Summer Session—Agriculture.....	23	8	31
State Summer Session—Architecture.....	3	—	3
State Summer Session—Home Economics.....	—	18	18
1st S.S. Law 1930—Arts.....	2	—	2
1st S.S. Law 1930—Law.....	23	1	24
1st S.S. Law 1930—S.S.....	2	—	2
2nd S.S. Law—1st S.S. Law.....	40	1	41
2nd S.S. Law—Law.....	20	—	20
Totals.....	1021	386	1407

STUDENTS

The accompanying tables show the attendance for 1930-31, give the number of students who have received instruction this year, including those in the 1930 Summer Session, in the 1930 State Summer Schools, in the 1930-31 Winter Courses in Agriculture, and the Summer Sessions in Law, but excluding duplicates, as 8061.

The accompanying table shows the attendance in each course since the opening of the University in 1868.

MATRICULATES

The following table shows that 2147 students have registered during the present year for the first time. The table also shows the methods of admission. Students entering for the first time in the Summer Session and in the State Summer Schools are not considered as matriculates, but for convenience are listed in this table.

	Men	Women	Total
Graduates.....	362	160	522
Advanced standing.....	186	63	249
Regents' credentials.....	566	214	780
School certificates.....	367	93	460
By examination.....	—	—	—
As special students.....	45	24	69
Coll. Ent. Board Exams.....	26	—	26
Medical (N.Y.C.).....	32	9	41
Summer Session (1930).....	218	284	502
State Summer School (1930).....	109	199	308
Summer Grad. (Per. Dir.).....	3	—	3
Summer Law School.....	22	2	24
Totals.....	1936	1048	2984

The small number entering by some of the methods above is due to the fact that two or more methods have been combined in a single case, the student, however, being listed in the group to which the major portion of his entrance belongs.

FIRST DEGREES

September, 1930; February, 1931; and June, 1931.

	Men	Women	Total
A.B.	269	159	428
B.Chem.	15	—	15
B.S. (a)*	96	12	108
B.S. (b)	—	86	86
B.S. (c)	21	1	22
LL.B.	38	3	41
D.V.M.	29	—	29
B.Arch.	19	3	22
B.L.A.	4	2	6
C.E.	61	—	61
M.E.	86	1	87
E.E.	38	—	38
M.D.	58	9	67
W.A. (d)	2	—	2
Totals.	736	276	1012

*a, means Agriculture; b, Home Economics; c, Hotel; d, War Alumnus.

ADVANCED DEGREES

	Men	Women	Total
A.M.	46	45	91
M.S.	45	21	66
M.S. Agr.	7	—	7
A.M. in Educ.	2	1	3
M.S. in Educ.	2	3	5
M. in Forestry. . .	3	—	3
M. Chem.	4	1	5
M. Arch.	3	—	3
M. Fine Arts.	—	1	1
M.C.E.	11	—	11
M.M.E.	1	—	1
Ph.D.	80	10	90
M.E.E.	3	—	3
Totals.	207	82	289

ADMISSION ON SCHOOL CERTIFICATE, REGENTS' CREDENTIALS, AND EXAMINATIONS

The Director of Admissions has charge of the credentials of those entering by school certificate, by Regents' credentials, and by examinations, including the examinations conducted by the College Entrance Examination Board.

During the past fifteen years the number of students entering by school certificate, by Regents' credentials, and by examinations, has been as follows:

	'16-17	'17-18	'18-19	'19-20	'20-21	'21-22	'22-23	'23-24	'24-25	'25-26	'26-27	'27-28	'28-29	'29-30	'30-31
Cert.	605	524	648	636	646	600	527	595	483	470	438	405	380	387	460
Regents.	544	476	649	575	543	527	596	605	570	603	631	570	578	766	780
Exam.	9	7	4	12	7	8	4	2	9	11	6	6	1	4	—
C.E.E.B.	13	20	22	31	23	23	33	34	21	29	28	28	29	33	26
Total.	1171	1027	1323	1254	1219	1158	1160	1236	1083	1113	1103	1009	988	1190	1266

ADMISSION FROM OTHER COLLEGES AND UNIVERSITIES

In the following list should be included properly a number of cases of special students who, coming from other colleges, would have been eligible for admission to advanced standing. Such students, however, preferred to be admitted as specials. Some later changed to a regular course but are not included in the tables.

The number of students entering with advanced standing as candidates for the first degree during the past forty-three years, is, as nearly as may be ascertained, as follows. The former courses in Chemistry, Pharmacy, Medical Preparatory, and Optional have been omitted from the table but the numbers have been retained in the totals.

Year	Arts	Phil.	Let.	Sci.	Agri.	Arch.	Civil Eng.	Mech. Eng.	Forestry	Law*	Vet.	Med. of Cases
1886-87	2	8	1	4	1	4	6	18	..	..	..	50
1887-88	6	4	1	1	..	..	11	10	..	..	..	37
1888-89	5	..	6	5	2	2	12	21	..	..	..	64
1889-90	4	5	6	3	2	1	2	25	..	..	..	50
1890-91	8	8	2	4	1	..	14	28	..	..	..	69
1891-92	7	9	2	5	2	2	10	52	..	..	..	90
1892-93	6	6	1	8	..	6	11	44	..	..	..	87
1893-94	5	6	5	8	..	6	6	56	..	..	..	98
1894-95	4	2	3	3	2	3	6	44	..	..	..	71
1895-96	5	11	4	7	3	3	9	33	..	..	..	85
1896-97	10	4	2	4	3	3	11	42	..	12	5	100
1897-98	11	6	..	7	9	2	15	41	..	15	1	108
1898-99	27	6	1	7	4	3	16	56	1	6	2	134
1899-00	28	..	..	..	5	3	25	64	1	7	4	138
1900-01	37	..	..	..	4	6	6	64	3	10	2	134
1901-02	38	..	..	..	6	2	29	92	5	7	..	184
9902-03	33	..	..	..	8	2	24	105	9	12	1	194
1103-04	31	..	..	..	9	5	39	112	..	9	1	207
1904-05	29	..	..	..	9	5	44	101	..	3	..	191
1905-06	39	..	..	..	14	8	36	89	..	1	..	187
1906-07	40	..	..	..	19	5	55	86	..	15	..	220
1907-08	43	..	..	..	22	10	60	79	..	11	..	225
1908-09	37	..	..	..	21	10	53	71	..	5	1	203
1909-10	47	..	..	..	41	7	30	88	..	9	..	222
1910-11	41	..	..	..	44	8	44	47	..	11	..	195
1911-12	36	..	..	..	52	6	38	57	..	7	4	200

Year	Arts	Home Econ.	Agri.	Arch.	Engineering	Law	Vet.	Med.	No. of Cases
1912-13	57	..	76	8	83	7	1	..	232
1913-14	58	..	76	5	78	7	..	..	224
1914-15	70	..	87	5	93	7	1	6	269
1915-16	85	..	94	7	75	9	4	8	282
1916-17	76	..	84	9	73	9	2	10	263
1917-18	64	..	45	3	50	12	2	4	180
1918-19	87	..	52	3	79	11	6	6	244
1919-20	126	..	102	8	146	9	2	8	401
1920-21	75	..	68	13	134	5	5	3	303
1921-22	95	..	62	6	100	13	2	1	279
1922-23	61	..	74	14	75	7	6	5	242
1923-24	59	..	82	12	72	21	1	5	252
1924-25	60	..	90	13	62	41	3	6	275
1925-26	60	38	43	13	61	16	3	6	240
1926-27	70	34	36	6	68	13	5	7	239
1927-28	57	26	40	7	61	26	8	10	235
1928-29	123	18	29	9	62	31	7	50	339
1929-30	102	39	33	8	54	25	6	..	267
1930-31	80	40	38	11	44	23	3	5	249

*No data prior to 1896-97.

FIRST DEGREES

ADVANCED DEGREES

****The Certificate of War Alumnus is conferred by the Trustees, on the recommendation of the Faculty in recognition of patriotic service; it conveys all the rights and privileges of an Alumnus of the University. The degrees conferred in September and February are counted with those conferred in the following June.**

TABLE SHOWING THE NUMBER OF STUDENTS IN EACH COURSE SINCE THE OPENING OF THE UNIVERSITY IN 1868

[illegible]

*Includes those registered merely "Optional;" e. g. "Optional Agr.," "Sp. Agr.," etc., are counted in the course to which they belong. The classification of "Optionals" was always vague, and this accounts for the sudden fluctuations in that course which appear in the Catalogue.
 ‡Summer Session of 1892.
 The table for 1916-17 includes the 1916 Summer Session and 1916 Summer School in Agriculture. Thereafter the year is from July 1 to June 30.

ATTENDANCE FOR THE YEAR 1930-31

[illegible]

The following table shows the age in years and months at graduation for the ten year classes 1870-1930. It also shows the age separately for men and women. The Master's degrees are listed in one group and the Doctor's in another. The age at graduation of the youngest member of the graduating class and also that of the oldest member are given as well as the median age.

	Arts		Law		Medicine		Veterinary		Agriculture		Architecture		Civil Eng.		Mech. Eng.		Masters		Doctors		War	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women		Al.
Class of 1870:																						
Minimum.....	20-4																	26-0				
Median.....	21-11																	26-0				
Maximum.....	28-5																	26-0				
Class of 1880:																						
Minimum.....	18-11	19-8							20-6		19-6		21-0		23-0		29-3		22-9			
Median.....	22-3	22-2							21-0		21-5		22-8		25-1		30-3		22-9			
Maximum.....	32-8	24-6							30-0		25-5		25-9		28-1		29-3		22-9			
Class of 1890:																						
Minimum.....	19-9	20-11	20-1						20-1		20-7		19-2		20-2		20-7		23-5			
Median.....	22-4	23-0	22-6						23-2		23-9		22-11		30-1		24-1		28-10			
Maximum.....	32-6	27-1	36-2						25-3		26-11		27-10		30-1		29-10		30-6			
Class of 1900:																						
Minimum.....	20-0	20-6	19-6						22-7		21-2		20-11		19-9		22-0		21-11			
Median.....	22-10	22-11	22-5						23-10		23-0		23-10		22-10		24-9		36-6			
Maximum.....	36-3	33-8	34-4						28-2		28-1		28-8		30-0		40-2		42-0			
Class of 1905:																						
Minimum.....	19-11	20-6	20-9	22-1	20-9	21-10	20-11		20-9	27-6	22-9		20-5		20-4		21-4	23-11	23-5	37-5		
Median.....	22-6	22-10	23-5	22-1	23-6	29-10	25-5		23-10	27-6	24-4		24-1		23-3		25-1	29-3	31-2	37-5		
Maximum.....	33-10	52-5	29-3	22-1	38-10	38-4	33-0		38-3	27-6	30-0		33-8		32-6		36-1	32-5	40-4	37-5		
Class of 1910:																						
Minimum.....	20-1	20-8	20-10	22-6	21-3	27-6	21-0	24-8	20-9	21-10	22-3		19-9		20-2		21-7	29-8	23-0	26-5		
Median.....	22-5	22-6	22-10	23-5	22-6	29-10	25-5		23-10	27-6	23-0		23-5		22-11		20-1	29-8	28-10	29-6		
Maximum.....	34-7	45-2	26-9	22-6	33-9	39-11	47-0	24-8	34-10	24-2	30-4		31-11		32-7		32-4	29-8	38-7	36-1		
Class of 1915:																						
Minimum.....	20-1	20-0	20-5						20-2		20-8		20-7		20-1		24-6	24-7	25-6	28-2		
Median.....	22-6	22-5	22-10						23-7		23-4		23-9		22-8		27-10	28-5	29-4			
Maximum.....	34-4	36-5	32-3						40-8		40-5		36-0		32-11		42-1	42-0	42-1	34-0		
Class of 1920:																						
Minimum.....	16-9	20-6	20-11	21-4	23-0	23-9	21-7		19-9	20-3	21-11		19-8		34-7		21-4	20-9	24-9	25-8	19-10	
Median.....	22-6	22-3	22-11						23-10	22-10	24-8		23-6		23-5		24-10	26-0	30-11	30-7	24-9	
Maximum.....	33-2	44-5	29-11	26-10	30-10	44-1	32-0		43-11	38-2	31-0		33-6		34-7		51-6	47-6	49-9	45-4	69-9	
Class of 1925:																						
Minimum.....	19-4	19-7	21-7						20-3	19-1	23-1		20-7		20-4		20-4		19-8	23-4	30-4	
Median.....	22-0	22-0	23-8						23-9	27-4	24-0		23-3		22-8		26-8	24-11	28-8	40-2		
Maximum.....	29-7	30-1	33-1						32-11	34-2	35-2		28-3		34-6		43-6	43-10	47-4	52-2		
Class of 1930:																						
Minimum.....	19-7	19-5	21-5						20-5	19-9	21-9		20-2		20-2		20-7	20-1	23-6	24-2	30-10	
Median.....	21-9	21-8	23-11						23-2	22-8	24-6		22-1		22-1		26-6	25-2	31-3	34-5	35-7	
Maximum.....	27-2	31-6	33-12						30-2	34-8	33-1		30-2		23-11		57-11	43-6	50-4	59-4	52-1	

Of the 249 entering in 1930-31, 72 registered as Freshmen, 120 as Sophomores, 43 as Juniors, 14 as Seniors.

During the past forty-three years there have been admitted from 580 other institutions of collegiate rank, 8558 students.

The inserted table gives the number admitted to graduation. Care has been taken to discriminate between closely allied degrees, but such have been grouped so as to show at a glance the number in each department.

EUGENE F. BRADFORD,
Registrar.

APPENDIX XVII

REPORT OF THE LIBRARIAN

To the President of the University:

SIR: I herewith submit the report of the University Librarian for the year 1930-31. It is the first report over the signature of the Librarian making it, who entered upon his duties on August 1, 1930. The Librarian Emeritus, Mr. Willard Austen, retired from active service on June 30, 1929. In the interim the Library was administered by a committee appointed to this duty by the President. It consisted of Professor Charles H. Hull, of the Department of American History, Chairman, Professor Halldór Hermannsson, Curator of the Fiske Icelandic Collection, and Mr. E. R. B. Willis, then Assistant, now Associate Librarian.

After an experience of one year, the new librarian has had ample opportunity to become acquainted with the actual condition of the Library and the conditions under which the Staff and users of the Library work. After this period of observation one thought clamors above all others for official utterance. This thought is not new. It has been expressed repeatedly in earlier reports, and was elaborated and commented upon with great care and with wise insight born of long and intimate experience in the report of the interim Administrative Committee submitted last year. It is summed up in the one word, "Inadequate."

The burden of the song, which the present Librarian takes up in conscientious sincerity from his predecessors, is a simple descant upon this theme. The library building is wholly inadequate for the normal needs of the Cornell University of the present day. While it may share this disadvantage with some other universities of the size and the importance of Cornell, it falls notably behind all other universities of the same rank in two additional points. In the first place the sum available for staff salaries is wholly inadequate for the proper staffing of an institution of this size. Secondly, the sum available for the purchase of new books falls far below the figure which would keep the number and the quality of new accessions on a par with the foundation stock of former years, which gave to the Cornell University Library whatever of respect and repute it may have won in the earlier years of its existence.

Aside from the appointment of the new Librarian and the change in the status of Mr. Willis, Assistant Librarian, who became Associate Librarian on August 1, 1930, there have been no changes in the staff that call for comment. That the work of the Library has gone on with no apparent hitch in spite of the existing adverse circumstances, is due entirely to the loyal willingness of the staff to work and to serve with no relaxation of effort. To this loyalty the Librarian takes the opportunity to pay due tribute of acknowledgment.

THE YEAR'S WORK

The reports of the heads of the various divisions show that the resources of the Library have been applied to advantage within the limits of possibility.

REPORT OF THE LIBRARIAN

lxxv

ACCESSIONS

General and Special Collections

	Volumes Added	Present Extent
General Library.....	13,673	610,259
Fiske Dante Collection....	107	10,093
Fiske Petrarch Collection....	23	4,316
Fiske Icelandic Collection....	507	19,043
Wason Chinese Collection....	6,639	18,947
Wordsworth Collection (Gift of Victor Emanuel, 1925)....	259	2,259
Cornell University Theses....	292	8,843
Philological Seminary Collection....	12	1,109
Philosophical Seminary Collection....	0	974
German Seminary Collection....	0	769
French Seminary Collection....	0	24
Latin and Greek Seminary Collection....	0	326
American History Seminary Collection....	32	654
Manuscripts....	38	892
Cornell University Maps and Plans....	2	202
Maps....	11	1,113
U. S. Coast Survey Charts....		950
U. S. Geological Survey Topographical Sheets....		3,505
U. S. Geological Survey Atlases....		215
British Geological Survey Maps....		600
Flower Veterinary Library....	832	9,195
Barnes Hall Library....	95	3,297
Goldwin Smith Hall Library....	74	3,357
Hart Memorial Library....		4,712
Van Cleef Memorial Library (Medical)....	541	3,471
Comstock Memorial Library....	173	1,387
Emil Kuichling Library (Engineering)....	5	2,144
College of Architecture Library....	69	1,976
Economics Laboratory Collection....		340
Gray Memorial Library....	24	664
Entomological Laboratory Collection....		2,403
Rockefeller Hall Library (Physics)....	18	1,186
Chemistry Library (Special)....	67	246
Forestry Library....		1,881
New York State College of Agriculture Library....	4,913	66,144
Law Library....	4,408	68,101
Total.....		855,597

Miss Ingersoll, the head of the Order and Accessions Division, reports that, of the 13,637 volumes added to the General Library, 5,526 were purchases, and 8,147 were gifts. The latter figure includes 2,545 volumes from the hitherto uncatalogued remainder of the Loewy gift of 1924. The additions to the special collections in the central building numbered 9,255, a greater increment than usual because of large additions to the Wason Chinese Collection. The Wordsworth Collection was increased by 259 volumes. A further addition of 292 typewritten Cornell University Theses for advanced degrees brings the total of additions to the University Library to 23,479.

An attempt was made during the year to acquire some of the files of periodicals and learned society publications which were wanting. The following were the largest items among these purchases:

Eclogae geologicae Helvetiae. Vols. 1-20, 1888-1927.

Fataburen: kulturhistorisk tidskrift, Stockholm. 22 vols. 1906-1927.

Southern Historical Society Papers. 36 vols. 1876-1917.
 American Pharmaceutical Association. Journal. 18 vols. 1912-1930.
 Revue Latine. 7 vols. 1902-1908.
 Zeitschrift für schweizerische Geschichte. 9 vols. 1920-1929.
 Gesellschaft der Wissenschaften, Göttingen. Mathematisch-physikalische
 Klasse. Abhandlungen, vols. 1-14, 1897-1929.
 Norske Videnskaps-akademi. Skrifter. Historisk-filosofisk Klasse. 1894-
 1929.

CATALOGUE DIVISION

Volumes and pamphlets catalogued.....	15,965
Maps catalogued.....	124
MSS. catalogued.....	15
Titles added to catalogue.....	9,068
Written cards added.....	14,724
Printed cards added.....	13,804
Cards added to Library of Congress Depository Catalogue.....	47,529
Cards added to Harvard Catalogue.....	320

The figures tabulated by Miss Speed, the head of the Catalogue Division, show that slightly more ground was covered this year than in earlier years, excepting the immediately preceding year, 1929-30, when the use of certain surplus funds made it possible to employ extra catalogue help. This explains the comparatively large number of books from the Loewy gift, 3306, catalogued last year as against this year's figure, 2545. The remainder of the Loewy collection to the number of about 4200 volumes are still uncatalogued after a period of seven years since their arrival in the Library. Several other gifts, not numbering so many volumes as the Loewy collection, have had to remain uncatalogued and therefore inaccessible for lack of a sufficiently large staff of cataloguers.

CLASSIFICATION AND SHELF DIVISION

Books classified.....	13,500
Books reclassified.....	75
Number of presses added.....	432
Number of presses shifted.....	4,387

The number of books handled by Mr. De Grassi, Classifier and Supervisor of Shelves, exceeds that of last year by almost 2000. The overcrowded condition of the Library is as hopeless as ever. The shelving problem, which has been acute for years, is no nearer solution, and cannot be brought nearer, without a new building, or without adequate, even if only temporary additions, such as were proposed in the report of the interim Administration Committee, to the present building. The oft re-iterated cry, "The limit of capacity has been reached!" is fully justified, even though the continued existence and functioning of the Library and the repeated addition of thousands of accessions, seem to disprove its truth. The continued accretions have usually been cared for by the ingenious though dangerous use of odd spaces and corners, which were never intended for and should not properly be used for the shelving of books. Order and system are jeopardized. Bindings and books themselves are ruined. Valuable books cannot be properly segregated and cared for. A momentary relief was afforded during the past year by a simple building operation which, by preempting a part of the space formerly used by the Economics Seminary converted this room into one-and-a-half floors of bookstacks, and in another place, made of what was formerly an entry space two very small stack rooms. The number of presses thus provided was about 430. But the disadvantage of this method of increasing the shelf space becomes clear when it is seen that, in order to utilize these 430 new presses and to take advantage of the space thus released in the old presses, it was actually necessary to shift more than 4300 presses of books, some of them over long distances and up and down flights of stairs.

PERIODICAL DIVISION

Periodicals received, current:	
By subscription	1,334
By gift and exchange	1,151
Total	2,485
Volumes of periodicals bound	3,277

In spite of the overcrowded condition of our shelves the requests for the addition of new and of more complete files of old periodicals was justifiably insistent. The needs were urged by members of all departments of the Faculty, and by graduate and undergraduate students in all fields of study. Although it mortgaged the book funds for the future in a manner which cannot fail to react upon the freedom of book selection and acquisition in the next years, the demand was met by action of the Library Council which within the last three years increased the regular annual allotment for the purchase of periodicals and serials from \$6,000 to \$9,000.

Miss Leland, in charge of the Periodical Division, reports that the lack of proper shelf space has necessitated the removal to less accessible shelves of certain files which should have remained available for general ready reference, such as *Century*, *Current Opinion* and others. The removal to the new space obtained by the remodelling of the Economics Seminary room, some distance away from the present newspaper stacks, of certain files of old newspapers, has afforded a slight improvement in the absolutely prohibitive condition of the Library's stock of old newspapers, some of which are very valuable, and are in constant though far from easy use for research purposes by Faculty and students alike.

The monthly and quarterly indexes of *The New York Times* and *The Educational Index* published by the H. W. Wilson Company were new additions to the Library's list of periodical indexes.

The Periodical Division prepared the data for Cornell's contribution to the Second Supplement to the *Union List of Serials*, now in the press. Upon Miss Leland's shoulders fell the greater part of the burden of preparing for publication the annual "List of Publications of University Officers," for the year 1930-31.

READERS' DIVISION

Days open to the public	308
Registered borrowers	
Faculty	740*
Students. College year	756
Summer Session	263
Recorded use (Number of books)	
Reading room	103,737
Seminary rooms	3,332
Laboratories and department collections	4,227
Home use	52,463

*Less than in former years, because all inactive cards have been removed.

Mr. Willis, Associate Librarian, who remains in charge of the Readers' Division, points out that the special circulation collection of books of unusual and general current interest, known to its users as "7-day books," which was established two years ago, has continued to attract the attention and interest of a group of grateful borrowers. These books, chiefly though not entirely modern fiction, are loaned for one week only, and only one volume may be borrowed at a time. The penalty for overdue books is ten cents per day. The books were purchased chiefly with money obtained from fines and from the income of the Howland Fund. Gifts from the Faculty, from students, and from other residents of Ithaca have been added from time to time. As the interest in a seven-day book wanes it is removed from the open seven-day shelf, and added to the general collection. About 200 titles are kept available for the seven-day circulation. During the past year 4,962 loans were made. These figures are included in the figures for "home use" given above.

INTER-LIBRARY LOAN

The supervision of Inter-Library Loans has likewise continued under the direction of Mr. Willis. The great number of valuable older scientific, historical and belletristic works, which characterized the original book stock of Cornell University, and also the complete modern collections maintained by a few departments which pursue special lines of research, have made the Cornell University Library a source of help, even to some of the greater libraries of the country, though they are numerically and financially stronger than Cornell.

The loans of Cornell to other libraries far outnumber our borrowings. During the year Cornell made 766 loans to 109 other libraries. Several of them were libraries of the research laboratories of great industrial corporations. The largest number, 105, went to the New York State Agricultural Experiment Station at Geneva, which is a part of Cornell University. The other borrowers included:

University of Rochester.	57	Elmira College.	14
Wells College.	56	University of Pittsburgh.	13
Syracuse University.	31	University of Pennsylvania.	11
University of North Dakota.	28	University of Toronto.	11
University of Buffalo.	23	University of Rochester Medical Li-	
Ocala Public Library.	23	brary.	10
University of Buffalo School of		Brown University.	9
Medicine.	20	Grosvenor Library.	7
Eastman Kodak Company.	19	New York State Library.	7
University of Iowa.	17	Princeton University.	7
Columbia University.	16	Hamilton College.	6
Dartmouth College.	16	McGill University.	5
General Electric Company.	16	Johns Hopkins University.	3
University of Michigan.	15	Harvard University.	2
Yale University.	15	Rockefeller Institute.	2

Cornell borrowed 290 works from 38 other libraries. The large share of the burden assumed by the Library of Congress should not remain without a token of thankful recognition. To this Library and to the others who responded to our appeals our gratitude is unabated. Those which head the list are:

Library of Congress.	95	University of Toronto.	10
Columbia University.	38	University of California.	9
Harvard University.	16	U. S. Department of Agriculture.	8
McGill University.	14	University of Rochester Medical	
New York State Library.	13	Library.	6
Surgeon General's Library.	13	Syracuse University.	6
Yale University.	11		

SPECIAL COLLECTIONS

Wason Chinese Collection

The largest addition to any of the special collections supported by independent endowments, which constitute a source of pride to the University Library and the University at large, was made this year to the Wason Chinese Collection. This unusual library, now numbering about 19,000 items, came to the University in 1919 through the bequest of Charles W. Wason of the Class of '76, and then numbered about 9,400 items, chiefly books in the English language relating to China. Since then, out of the generous endowment of the donor, it has grown and is growing rapidly, its scope and aim having been widened to include books in other languages than English, among them important Chinese publications. For the year 1929-30 no complete report of additions could be made, because the Curator, Miss Gussie Gaskill, was abroad in China during the greater part of the period, and the collection profited materially by her ability to acquire valuable books in China. The accumulated purchases of the two years amounted to 6,639 volumes.

Among the important additions were:

Ssu pu ts'ung k'an. A collection in 2,101 volumes of facsimile reprints of rare old editions of 323 works of all classes of Chinese literature.

Shih i ch'ao sheng hsin. The decrees of the Emperors of the Ch'ing dynasty (1644-1911) in the original palace edition, 722 volumes in 130 covers.

Chiu t'ung. A collection of nine great historical works, 1,000 volumes in 50 covers.

Among the lesser additions were numerous Chinese catalogues of private libraries, so that the Cornell collection is now one of the richest in this respect in the Western hemisphere. Another feature of strength in the Wason Collection is its wealth of material on the history of the Ch'ing dynasty, and more especially on the relation between China and the West. Most noteworthy in this group is the series in 130 volumes of documents relating to foreign affairs from 1836 to 1875, the Ch'ou pan i wu shih mo, recently published in photolithographic reproductions by the Palace Museum in Peiping (Peking), where the original manuscripts are preserved.

Various gifts prove the interest of distant friends in the growth of the collection. The Curator is particularly grateful to Mr. T. L. Yuan, Acting Director of the National Library at Peiping, for his invaluable aid, and the ready assistance of his whole staff in the selection and acquisition of Chinese books. From this Library the collection received, as a gift, the Hsin chi lu of Lin Tse-hsü. Other gifts came from Dr. Hu Shih of Shanghai, who presented the four volumes of his "Wen ts'un san chi," and from Mr. Chu Ting-mou of Peiping who gave ten of his own works in Chinese, dealing with literature and economics.

In the Wason Collection, again, the inadequacy of the Library's catalogue force makes itself most painfully noticeable.

The Fiske Dante and Petrarch Collections

The Dante Collection, increased by 107 volumes, now numbers 10,093; while the addition of 27 volumes to the Petrarch Collection brings it to 4,316. The new acquisitions are not all recent publications. Professor Hamilton, the Curator of the Italian collections, points out that a careful and continuous scrutiny of dealers' catalogues results in the occasional discovery of older works, which by their rarity had eluded the indefatigable efforts of Mr. Willard Fiske, to whose wisdom and skill as a collector several of the great special collections of Cornell University are a lasting monument.

Thus, the past year saw the addition to the Petrarch library of five older books which deserve special mention. Perhaps the most important of these is an edition of Petrarch's "Rime," published by Giorgio Marescotti in Florence in 1573, an edition quite unknown to Petrarchean bibliographers, except to one, who, writing in 1732, noted an edition by this printer, dated 1574, which he had not seen himself. Very rare is the "editio princeps" of the "De remediis utriusque fortunæ," printed by Conrad Fyner at Esslingen, probably in 1474, while of the Spanish translation of the same work, made by Francesco de Madrid, printed at Seville in 1516 by Juan Varela, only four other copies are known. Of the third edition of the "De vera sapientia," which from its type is attributed to Cornelius von Zyrickzee, printed at Cologne about 1500, only four other copies are known. Of the Deventer 1498 edition of the "Secretum" there are only three other copies.

Of the newer Dante books two came as gifts to the Library. Mr. Jukichi Oga of Osaka gave the second edition of his "Bibliografia Dantesca Giapponese." Mr. Yamakawa Isaburo presented his translation into Japanese of Dante's Vita Nuova.

Fiske Icelandic Collection

The Icelandic Collection was increased by 507 volumes this year and now numbers 19,043 volumes. Professor Halldór Hermannsson, its Curator, reports that among the most significant additions of the year was an apparently unique copy of Peder Palladius' "Catechism," printed at Hólar in Iceland in 1576, a very

early Iceland imprint. Another important acquisition was a facsimile of the Flatey Codex, the largest and best preserved of old Icelandic manuscripts. The original, dating from the end of the fourteenth century, is preserved in the Royal Library at Copenhagen. Among the donors to the Collection were Mr. Eynar Munksgaard of Copenhagen, who presented three books on Iceland by various authors, published by him; and Professor Olafur Lárusson of Reykjavik, who gave us eleven of his own works.

PUBLICATIONS

To the list of publications of the Cornell University Library was added the usual annual volume of the series "Islandica," published with the aid of an endowment provided by Willard Fiske. The new volume "The Book of the Icelanders (Islendingabók), by Ari Thorgilson. Edited and translated, with an introductory essay and notes, by Halldór Hermannsson." is the twentieth in the series. The editor intends to make the twenty-first volume a memorial publication to its founder, who was born one hundred years ago on November 11, 1831. The Library's series of catalogues (Dante, Petrarch, Icelandic, Runic, A. D. White Library) was increased this year by a new volume: "The Wordsworth Collection, formed by Cynthia Morgan St. John and given to Cornell University by Victor Emanuel. A catalogue compiled by Leslie Nathan Broughton."

GIFTS

Those who enriched our collections, general and special, by gifts during the year numbered not fewer than 340, and their gifts totalled more than 8,000 volumes and pamphlets. An alphabetical list of donors concludes this report. The gifts of faculty members, students and alumni form no small part of the new acquisitions, and donations from these quarters are always a source of particular satisfaction to all who have the interest of the Library at heart. It will also be observed that the titles of periodicals and serials and the names of national, state and municipal governments, of learned societies, corporations or individuals who published serials, occur frequently. At a time when the scarcity of funds makes the purchase of an ever increasing number of periodicals a matter of disquieting difficulty, we feel that we owe a special debt of gratitude to these donors, particularly to such as have renewed their gifts from year to year.

There follows a random and quite incomplete selection of some of the individual gifts, which is offered here merely to show the kind of books which have been received. Gifts to the special collections have been enumerated in the reports on those collections.

Dr. Marion Blake gave us her "Pavements of the Roman buildings of the Republic and early Empire." Mr. Otto E. Burger gave twelve volumes of Luther's works in eighteenth century editions. Dr. Luzerne Coville presented a photostat copy of the town meeting records of the Town of Ulysses, the corporate unit which included what is now Ithaca before the latter was established as an independent village in 1821. Dr. N. M. Crouse has continued his aid in building a collection of books on Fascism by adding nine new works on this subject. Mr. E. J. Farley gave Moore's "A story-teller's holiday." Mr. and Mrs. W. F. E. Gurley, whose names have figured constantly in the list of donors, presented ten volumes on various topics. From Mrs. George Heye we received "An account of conferences held and treaties made between Major General William Johnson and the chief sachems and warriors," a 1930 reprint of the London edition of 1756. Lieutenant Colonel R. H. Isham gave us F. A. Pottle's catalogue of "The private papers of James Boswell in the collection of Lt. Colonel R. H. Isham." Mr. and Mrs. Victor H. Panek gave eighteen volumes of the Storisende Edition of the works of James Branch Cabell. Mr. H. V. Pratt presented volumes 46 to 49 of "The Steuben Farmers Advocate," 1860-1864. Dr. H. P. de Forest added to his donations of former years the continuations of nine medical serials and fifty-one miscellaneous publications. Mr. J. H. Nash sent, from his press, the "Laudes Virgilianae" of Henry Woods. Mr. Samuel Tannenbaum gave his "Shakespeare

Studies, No. 2.—An object lesson in Shakespearian research." From Dr. A. C. White came works of St. Augustine and Ovid in early sixteenth century editions, a 1522 edition of the Vulgate and five volumes of serials. Mr. S. L. Werner gave ten works by D. H. Lawrence. Mr. Thomas J. Wise presented "A Landor library, a catalogue of printed books, manuscripts and autograph letters by Walter Savage Landor, collected by Thomas J. Wise."

Among the societies, libraries and corporations who added to our collections were: The Carnegie Endowment for International Peace which sent us six publications. The Hispanic Society continued its long series of valuable gifts with five new volumes and twenty-nine leaflets. The Bancroft Library of Berkeley, California, donated "Spain and Spanish America in the Library of the University of California. Vol. 2." The John Rylands Library of Manchester, England gave us "The cartulary of the Cistercian Abbey of Old Warden, Bedfordshire" and "English incunabula in the John Rylands Library." From the Pierpont Morgan Library in New York came "The Pierpont Morgan Library, 1924-1929." The United States Playing card Company donated C. P. Hargrave's "A history of playing cards and a bibliography of cards and gaming."

OTTO KINKELDEY,
Librarian.

APPENDIX XVIII

PUBLICATIONS 1930-31

The University Library keeps alphabetically arranged the publications of University Officers, so far as received at the Library, and for this purpose copies are solicited. Omissions in the following list are due to incomplete information.

Cornell University. Official publication. v. 22, 1930-31.

Cornell University. Agricultural Experiment Station. Bulletin. Ithaca, N. Y. No. 510-525. 1930-31.

— Memoir. Ithaca, N. Y. No. 129-135. 1930-31.

Cornell University. College of Architecture. Report of the Dean. 1929-30.

Cornell University. Official publication. v. 22, no. 4. Appendix XI. 1930.

Cornell University. College of Arts and Sciences. Report of the Dean. 1929-30.

Cornell University. Official publication. v. 22, no. 4. Appendix III. 1930.

Cornell University. College of Engineering. Report of the Dean. 1929-30.

Cornell University. Official publication. v. 22, no. 4. Appendix XII. 1930.

Cornell University. Director of Admissions. Report. 1929-30. *Cornell University. Official publication. v. 22, no. 4. Appendix XV. 1930.*

Cornell University. Law School. Report of the Acting Dean. 1929-30. *Cornell University. Official publication. v. 22, no. 4. Appendix IV. 1930.*

Cornell University. Dean of Women. Report. 1929-30. *Cornell University. Official publication. v. 22, no. 4. Appendix XIV. 1930.*

Cornell University. Graduate School. Report of the Dean. 1929-30. *Cornell University. Official publication. v. 22, no. 4. Appendix II. 1930.*

Cornell University. Library. Report of the Librarian. 1929-30. *Cornell University. Official publication. v. 22, no. 4. Appendix XVII. 1930.*

— Publications (by Cornell University and its officers). 1929-30. *Cornell University. Official publication. v. 22, no. 4. Appendix XVIII. 1930.*

Cornell University. Medical College. Report of the Dean. 1929-30. *Cornell University. Official publication. v. 22, no. 4. Appendix V. 1930.*

Cornell University. Medical College, Ithaca Division. Report of the Secretary. 1929-30. *Cornell University. Official publication. v. 22, no. 4. Appendix VI. 1930.*

Cornell University. President. Annual report. 1929-30. *Cornell University. Official publication. v. 22, no. 4. 1930.*

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