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Willard, A.C.

Resources of U. of I.
for wartime service

University of Illinois
Convocations

“The University and the War”

THE RESOURCES OF THE
UNIVERSITY OF ILLINOIS
FOR WARTIME SERVICE

An address delivered by
A. C. WILLARD
President of the University

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UNIVERSITY OF ILLINOIS

January 21, 1942

THIS country is now engaged in total war with powerful enemies in Europe and in Asia. Every resource of these United States is needed in the attempt to win this war with the aid of our allies. For this colossal war effort the University of Illinois, along with all other colleges and universities, is pledged to render every possible assistance to the federal government, and do it *now, immediately*. Otherwise, what we do may be "too little and too late." We have already learned since the attack on Pearl Harbor that, as someone has already said, "it is later than you think."

But whatever we do, we must keep in mind the fact that in serving the country in either peace or war, the colleges and universities are primarily educational institutions. The great importance of this fact has been recognized by the President of the United States in a recent letter to the Association of American Colleges under date of December 29, 1941. Mr. Roosevelt said:

We have one great task before us. That is to win the war. At the same time it is perfectly clear that it will be futile to win the war unless during its winning we lay the foundation for the kind of peace and readjustment that will guarantee the preservation of those aspects of American life for which the war is fought. Colleges and universities are in the particularly difficult position of balancing their contributions to these two ends. I am sure, nevertheless, that the leaders of our colleges and universities can be depended upon to find the wisest solution for the difficult problem of how to make this twofold contribution.

I am anxious that this national crisis shall not result in the destruction or impairment of those institutions which have contributed so largely to the development of American culture. I shall appreciate being kept informed through the United States Commissioner of Education as to the effects of federal legislation and federal programs upon our colleges and universities.

The United States needs the services of its institutions of higher learning and we know we can depend upon their complete cooperation in carrying forward the present war effort.

Just what have we as one of the 52 land-grant colleges and universities to offer in the "one great task before us," and what are we capable of doing; in brief, what are the war resources of this publicly supported institution? In my opinion, our most effective resources are closely related to the regular services we render to the state and nation. Those services are:

1. Education at the college level in all fields of knowledge—nearly every one of which is or will be needed in winning this war and maintaining a permanent peace.

2. Research in all fields of pure and applied science as well as many other areas of knowledge.

3. Military training in what is now the largest R.O.T.C. unit in the country.

In these categories we have had experience and success, we have

competent teaching and research personnel, and a splendid plant with the necessary staff and equipment to operate it. A brief general summary of our present resources as a going University, as they existed on November 1, 1941, should have a place in this survey.

THE R.O.T.C.

1. The basic course, in which all able-bodied male students are enrolled during their first two years, consists of 3,648 men.

2. The advanced course, in which qualified juniors and seniors are given appointments leading to commissions as second lieutenants in the United States Army Officers' Reserve, consists of 595 men.

3. The United States Army staff of 86 is under Colonel Leonard C. Sparks, F.A., Commandant, and comprises 31 officers and 55 enlisted personnel.

Note: Over 50 per cent, or about 75,000, of the officers entering the United States Army have been secured from the advanced R.O.T.C. graduates of the land-grant colleges and universities of the United States. At present the R.O.T.C. is supplying the Army at the rate of 10,000 officers per year.

FACULTY AND STAFF

The University of Illinois employs a total of 3,888 persons, as follows:

	Urbana	Chicago	Total
Administration, teaching, research, clerical, etc.....	2,025	813	2,838
Maintenance of buildings and grounds.....	875	175	1,050
<i>Total</i>	<u>2,900</u>	<u>988</u>	<u>3,888</u>

STUDENTS AND ALUMNI

On November 1, 1941, 13,060 undergraduate and graduate students were enrolled, and of these 1,291 were enrolled in our three Chicago Colleges of Medicine, Dentistry, and Pharmacy. In addition, our 1941 Summer Session enrolled 3,194.

Alumni of the University now living total about 146,000.

PLANT AND EQUIPMENT

All buildings, grounds, and equipment necessary for teaching and research have actually cost \$39,000,000 as of November 1, 1941.

These are the major resources available at the University of Illinois for aiding our state and nation in "all out" war against our enemies.

Just how do we propose to use our resources in helping to fight and win this war? I think it must be obvious to anyone that this same question confronts all the other colleges and universities of the country, and so a National Conference of all these institutions was called to meet in Baltimore, Maryland, on January 3 and 4, 1942 and discuss the many common problems. Approximately 1,000 representatives of

higher institutions of learning from 46 states and one from Canada and one from Porto Rico attended the conference, which adopted the following 16 resolutions. I will read only a few, although we are in agreement with all of them.—

The Conference recommended that:

1. Institutions of higher education cooperate to the fullest extent with the National Resources Planning Board and other federal agencies responsible for surveys (a) to determine the immediate needs of man power and woman power for the essential branches of national service—military, industrial, and civilian, (b) to determine the available facilities of colleges and universities to prepare students to meet these needs, and (c) to appraise the ultimate needs in professional personnel for long-term conflict and for the post-war period, in order that a continuous and adequate supply of men and women trained in technical and professional skills and in leadership to meet both immediate and long-range needs shall be maintained.

2. There be brought to the attention of the President the necessity of issuing a statement of national policy which will avoid competitive bidding for faculty and students by government agencies and by industry and will conserve adequate personnel on all levels of education to assure the effective instruction of youth and adults, in order to provide a continuous supply of trained men and women.

3. The United States Office of Education Wartime Commission be requested to study and develop appropriate plans for the solution of the problems of (a) how to meet the teacher shortage in elementary and secondary schools and the shortage of workers for community programs, and (b) how to supplement the training of present and potentially available teachers and other workers for new and changing responsibilities.

4. The United States Office of Education Wartime Commission offer its services for cooperation with the United States Department of Agriculture, the Executive Committee of the Association of Land-Grant Colleges and Universities, and the Conference of Negro Land-Grant Colleges to assure an adequate supply of county agents, 4-H club leaders, home demonstration agents, and other leaders in rural life.

5. All institutions of higher education give immediate consideration to ways and means for accelerating the progress of students through such extension of the annual period of instruction and such adjustments of curricula as may be consistent with national needs and with educational standards, and as may be possible with available resources.

6. Desirable acceleration of programs of higher education should be accomplished without lowering of established standards of admission to college.

7. An immediate study be made by the National Committee on Education and Defense and the United States Office of Education Wartime Commission of desirable articulation in the academic calendars of the secondary schools and the colleges to facilitate acceleration of total educational progress.

8. An immediate study be made by the National Committee on Education and Defense and the United States Office of Education Wartime Commission as to the needs for and bases of federal financial assistance

to higher education (including junior colleges), for the duration of the emergency, in order that the training of students for national service may be accelerated.

9. The National Committee on Education and Defense and the United States Office of Education Wartime Commission be requested to assemble and publish accounts of changes made by educational institutions in the interest of war service.

10. Credit be awarded only to individuals, upon the completion of their service, who shall apply to the institution for this credit and who shall meet such tests as the institution may prescribe. In cases in which degrees are of distinct advantage to students in the service, it is recognized that some departure from this practice, on an individual basis, may be justified.

11. All colleges and universities take such steps as will be necessary to bring each individual student to his highest possible level of physical fitness.

12. The general application of the principle of selective service promises the most effective means for the placement of the individual in accordance with his capacity to serve national needs and with the least disturbance of basic social institutions.

13. The Selective Service System be requested to make adequate provisions for the deferment of bona fide *premedical* students in colleges whose tentative admission to an approved medical school has already been assured on the basis of the completion of not less than two years of college.

14. The Selective Service System be requested to make similar provisions for the deferment of bona fide *predental* students in colleges whose tentative admission to an approved dental school has already been assured on the basis of the completion of not less than two years of college.

15. The Selective Service System be requested to make provision for the deferment of bona fide *pretheological* students in colleges or universities who have been approved by their appropriate ecclesiastical authority.

16. The Selective Service System be urged to issue a directive calling attention of state directors and local selective service boards to this need and the consequent necessity of providing occupational deferment for selected individuals pursuing graduate work.

So much for the general background and policies against which our University resources for wartime service are being developed. That development has been in progress for many months and has proceeded very rapidly since December 7, 1941 as the following record indicates:

1. Research work for the Army and Navy is now being actively engaged in by members of our teaching and research staffs both here on the campus and away from the campus. The Department of Physics has granted leaves to Professor Loomis, the head of the department, and six or more of its principal men to carry on a highly technical program of research in the East, all of which has been in progress for over a year.

2. The Department of Chemistry has a number of men similarly engaged on very important research projects related to the war for various departments of the government. The head of this department, Dr. Roger Adams, is now serving as Chairman of Division B (Chemistry and Chemical Engineering) of the National Defense Research Committee.

3. The Board of Trustees has made it possible for faculty and staff members to retain their positions through leaves of absence without pay when called into the military and naval service of the United States or into service essential to the prosecution of the war. The number of persons now on leave in these services includes 71 for military service and 16 for defense projects, in addition to 24 who have resigned.

The most recent activities of the University in meeting the war situation by using our resources are briefly summarized in the following paragraphs:

1. On December 10, 1941, the President of the University called a *General Convocation* of students and staff over which Provost Harno presided. Approximately 9,000 persons attended and were given information and advice in facing the war situation thrust upon the country.

2. A *Central War Emergency Committee* headed by Provost Harno and composed of chairmen of important standing committees was set up immediately to study and coordinate our resources and programs for meeting a situation of national peril unprecedented in the history of the University.

One of the first problems the new Central Committee has had to consider is the question of accelerating the University's program in order to enable students to proceed more rapidly to a degree. This can be accomplished by curtailing vacation periods to some extent as is now done in many universities. Our own Colleges in Chicago have already been authorized by the Board of Trustees to operate on a year round program, in order to meet the greatly increased demands on the medical profession. Under the University Statutes, since this matter involves problems of educational policy, the authorized agency to deal with it is the Senate Committee on Educational policy. With the assistance of the Central Committee, the Senate Committee on Educational Policy has been working on an accelerated program which involves keeping the doors of the University open to students all year round with only short intermissions. It is expected that the Senate Committee will announce the results of its deliberations very soon.

3. The University Senate acting on recommendations from its Committee on Educational Policy, Professor J. O. Draffin, Acting Chairman, promptly passed a series of war-time regulations granting certain credit for courses and providing for graduation of students who leave the University and enter the military or naval services of the United States or go into war industries under certain conditions.

4. The present Committee on Student Affairs, J. J. Doland, Chairman, has formulated and has already put into operation an extensive program. It has approved approximately thirty extracurricular defense projects. These have been opened to students, and registration is now being carried on. So far as possible, students are asked to limit their interests to one activity. At the present moment the greatest interest is being shown in radio operation, the learning of Spanish (extracurricular), first aid training on the part of men and women students, women's health service, nutrition courses by the Home Economics Department, and Red Cross work for women.

This committee has also been very active in providing facilities for visiting recruiting officers from various branches of the service; the

University has been visited by representatives from the Marine Corps, the Army, the Navy, Army and Navy aviation, and the Coast Guard.

5. A new *Committee on Curricular Course Adjustments*, C. R. Griffith, Chairman, has appraised the courses of the University in relation to special types of military service and defense training and has studied the areas in which new courses might be given.

Of existing courses, the committee points out that several branches of engineering science, of chemistry, of the premedical curriculum, and other divisions offer valuable specialized training in the recognized occupational and professional fields. For example, adequate training can be had in the University in physics, the various branches of electrical engineering, motorized equipment, transportation, road construction and maintenance, radio and communication, civil engineering, and kindred fields.

A highly practical form of work is given in the Department of Agricultural Engineering in the construction and operation of motorized equipment.

In the Department of Bacteriology, special attention will be given to types of laboratory work with pathogenic bacteria, such as are concerned in the operation and maintenance of military services.

In times of war even more than in times of peace, a steady supply of foodstuff is imperative so that work in agriculture and in agricultural extension occupies a position of importance along with other specialized occupations. The same fact holds true of other divisions of the University as, for example, of Education where the demand is growing for an increasing number of qualified teachers at all levels.

In consideration of the wealth of training and experience that can be provided through existing courses, the committee on courses has been impressed by the need for continuing our main policies of instruction and research. These policies possess values in their own right but they now have additional merit because (a) of the basic training in all fields of knowledge that ought to be available to those men and women who are not yet ready to be called to the service and (b) of the extreme demands that will be made on all educated citizens during the post-war period of reconstruction.

Several departments of the University have pooled their information in order to give divisional courses, as in the Division of Social Sciences which are aimed to give students clear ideas of the forces which have led up to the present war and the issues that are involved.

The special facilities in the General Division of the College of Liberal Arts and Sciences will continue to provide a new form of basic training for many students. A special value lies in the fact that those students who may not be able to complete more than two years of work before they are called to the service can resume, on their return, their educational plans for specialization with the advantage of a broad foundation in knowledge and experience.

Of direct practical value are a wide variety of resources in physical education. In view of the many defects uncovered by the selective service examinations, the departments of Physical Education for Men and for Women will provide facilities for corrective gymnastics and physical fitness.

6. *New Courses* sponsored by the Committee on Curricular Course

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Adjustments are also being set up in various departments to meet specific situations applicable to the war. Those already announced are:

Latin American Civilization (Social Science 1). The relations between North and South America are already becoming more friendly. One effect of the war will doubtless be a greater degree of cooperation and understanding. These results will depend, in part, on what we know about the peoples and activities of the countries to the south. Several departments will cooperate in the presentation of this course.

Military Law and Defense Legislation (Law 99). The R.O.T.C. of the University has been anxious to have the College of Law give a course on military law. The faculty was very glad to respond. It has conceived this course, however, to be one of much broader significance than the teaching of the mere principles of military law. A substantial amount of legislation has been passed affecting the rights of fighting men. Along with the study of military law proper, the student will study legislation bearing on the Selective Service Act, Soldiers' and Sailors' Relief Act, war risk and civil insurance.

Quartermaster Corps Organization and Operation (B.O. & O. 40). Quartermaster's service covers a wide variety of topics such as the organization and administration of the Quartermaster Corps, mess management, procurement of supplies, industrial mobilization, administration of supplies, theater of operation, accountability for property, and the operation of the quartermaster's depot.

Background and Problems of the War (Social Science 2). Ideals and practices of all sorts are intermingled in the present conflict. If we are to act wisely and promptly, we must have an understanding of the best practices in these areas.

Wartime Communications and Censorship (Journalism 48). This course will cover restrictions on naval and military information, sedition and espionage, Government information agencies, etc.

Pathogenic Bacteria (Bacteriology 25). Classification, morphology, cultural requirements and reactions, toxins, diagnostic tests and methods of differentiation. Laboratory methods of the United States Army.

Introduction to Chinese Culture (Sociology 46). Comprehensive survey and introductory analysis of Chinese civilization from the standpoint of cultural sociology and ethnology.

Economic Problems of the Defense Program (Economics 53).

Ultra-High Frequency Techniques (Electrical Engineering 53).

Training Home Economists for Work in Community Programs for the Present Emergency (Home Economics 23e).

Red Cross Nursing (Home Economics 40e).

First Aid (Hygiene 6). A complete Red Cross First Aid course and open to all undergraduate women.

First Aid (Hygiene 7). A complete Red Cross First Aid course and open to all undergraduate men.

Nurses' Aide (Hygiene 8).

This committee also organized and sponsored a program of *Convocations*. A schedule of the dates, speakers, and subjects for these convocations follows:

Tuesday, January 6—The Chief Causes of the War in Europe. Dr. A. L. SACHAR of the Hillel Foundation.

Wednesday, January 7—The Chief Causes of the War in the Far East. Professor A. H. LYBYER of the Department of History.

Tuesday, January 13—What Is Totalitarianism? Professor A. E. MURPHY of the Department of Philosophy.

Thursday, January 15—What Is Democracy? Professor ERNEST BERNBAUM of the Department of English.

Tuesday, January 20—Types of Military Service. Colonel LEONARD C. SPARKS, Field Artillery, Commandant of the University R.O.T.C.

Wednesday, January 21—The Resources of the University of Illinois for Wartime Service. President A. C. WILLARD.

7. *Centers of Information for Men and Women* have been established in the offices of the Deans of Men and Women respectively, and appropriate special committees are collecting and organizing the material. This information is available to students in Dean Turner's Office, and individuals familiar with this information will be available in that office to answer inquiries and to advise students. The committee has information on the Navy, Marine Corps, Army, Coast Guard, Federal Bureau of Investigation, Army Intelligence, and numerous industrial agencies working on defense projects. These materials are being summarized and arranged so that students may be able to secure information easily and without confusion. The committee plans a library of official publications, and summaries will be available in the Office of the Dean of Men and in the offices of the other members of the committee.

A similar center of information has been established for women students in the Office of the Dean of Women. Dean Leonard, in cooperation with a committee, has available in her office various types of information bearing on services which women can perform in the present emergency. Through the Office of the Dean of Women and in cooperation with the Committee on Student Affairs, extracurricular classes and services have been organized for the women students. These involve, among other things, a women's health service, a refresher course on nutrition given under the supervision of the Home Economics Department, a program of physical education organized by the Physical Education Department for Women, and a program of Red Cross work, as well as other activities.

8. *The Division of University Extension* under Director Robert B. Browne has been most active in making the resources of the University available to the entire State of Illinois. The work of this division in the field of help to industry and other activities related to the war has been in progress for many months and is very comprehensive in its scope.

(a) Most impressive is the Engineering, Science, and Management Defense Training Program. Under this program, training at the college level in engineering, chemistry, physics, and production management is provided in those industrial areas of the State that are in the battle of production. At this time there are in operation 24 different courses in 18 Illinois communities, for a total of 148 classes and an enrollment of 3,600 students. The courses are: Elementary Electrical Engineering; Chemistry of Powder and Explosives; Sanitary Engineering for the Emergency; Pre-Foremanship; Elementary Engineering Drafting; Advanced Engineering Drafting; Shop Mathematics; Production Engineering; Elementary Tool Design; Elementary Machine Design; Motion and Time Study; Safety Engineering; Personnel and Industrial Relations; Heat Treatment of Steel; Foundry Sand Control; Engineering Chemistry; Mathematics, Mechanics, and Strength of Materials; Engineering Physics; Electrical Circuits; Industrial Cost Accounting; Supervisory Training; Power Circuits and Machines; Stress Analysis. The Illinois communities are: Alton, Granite City, Decatur, Springfield, Champaign-Urbana, Kankakee, LaSalle,

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Further courses are in the process of organization—such as Ultra-High Frequency Techniques, Stress Analysis, Theory and Practice of Reinforced Concrete Design, Pyrometry, Aerial Bombardment Protection for Civilians, Training for Radio Engineers and Technicians; and more industrial communities will shortly be added to the list given above. It seems highly probable that more than five thousand of the men and women of Illinois—engineers, production supervisors, metallurgists, chemists, foremen, accountants, and others who make up the non-commissioned officers of the State's industrial army—will go into classrooms, laboratories and shops, often after the day's work, to become for a time the student body of the University's E.S.M.D.T. program.

(b) The Division has provided courses in conversational Spanish for the officers of the Air Corps stationed at Chanute Field. There have been almost two hundred of these officers receiving this instruction, which came as a result of a directive from the War Department to all such officers to learn the language.

(c) The Division is having prepared by the appropriate staff members materials for courses for young men who, lacking the necessary college training for admission to the flying cadet schools of the United States Army, wish to prepare for the mental examination required by the Army in lieu of sixty semester hours of college credit.

(d) The Division operates a Speakers' Bureau. This is the channel through which flow the requests for University faculty and student speakers from program chairmen of clubs and organizations in the State. The Bureau has been booking speaking engagements for those able and willing to inform the public on the problems of our National war effort. This is an important contribution to the maintenance of civilian morale.

(e) There has been created a state-wide school and college civilian morale service to work in conjunction with the Office of Civilian Morale in Washington and the United States Office of Education. It is the purpose of this service to muster the resources of the colleges and public and private schools of the State to contribute to the building of civilian morale for the successful prosecution of the war and the establishment of a just peace. The direction of this program in Illinois has been assigned to the Director of the Division of University Extension, who acts as State Chairman.

(f) The Visual Aids Service of the Division has acquired and is distributing motion picture films for exhibition in the classrooms on subjects that portray dramatically important events in the history of our country and contribute to the understanding of and loyalty to fundamental American ideas and ideals. Films on the story of the Declaration of Independence, of the American Constitution, and of the Bill of Rights are examples. Instructional films depicting operations of milling machines, turret lathes, precision instruments, as well as a large number of films in the fields of heat, sound, light, electronics, communication and transportation are in continuous use.

(g) The Division sponsors a research project in adult education that has been engaged in the preparation of materials and the training of teachers for the education of the foreign born under the auspices of the United States Department of Justice with whom all aliens in the United States are registered. This is part of an Americanization program.

(h) The Division conducts a number of institutes and conferences, several of which recently have been concerned with the problem of defense. The Club Women's School of Affairs this year enrolled 250 of the State, district, and local leaders of the Illinois Federation of Women's Clubs in a meeting whose program was devoted to seeking an understanding of the problems of the emergency. The Division conducted on the campus this fall an Illinois Fore-

men's Defense Conference attended by three hundred foremen and supervisors from Illinois defense industries. A leadership institute for the Illinois Congress of Parents and Teachers will be addressed to the consideration of topics growing out of the war situation. The annual meeting of the Illinois County Superintendents of Schools, which the Division conducts, will be given over to a consideration of the impact of the war on the schools of the State. The Division acts as a resource agency for the promotion of forums and citizenship training, all of which is designed to contribute to the successful operation of democratic processes.

(i) Men in the armed forces, whose education is interrupted by their calls to service, are afforded opportunity to make some progress toward college degrees by the University courses that are taught by correspondence.

(j) In conjunction with the University Library, the Division has projected a series of reading lists on the understanding of America, its aims, the war and the peace to follow.

9. The *Radio Advisory Committee* is planning programs of the town meeting type over the University Station W I L L in charge of Director J. F. Wright. These programs will be given on Sundays, a new departure for our Radio Station. Two programs already have been scheduled and approved for next semester which should be distinct contributions at the present time. The first is exclusively for radio and concerns Foreign Trade with special emphasis on South America. The second is the course especially arranged to deal with economic problems of the defense program.

In general, Station W I L L has been using all programs of a national defense nature that are consistent with its program policy. These include spot announcements for the Army, Coast Guard, Marines, Navy, Civil Service Commission, Defense Savings, etc.; transcribed programs for the Army, Navy, WPA-Defense projects; and all of President Roosevelt's recent talks, as well as the recent one by Prime Minister Churchill.

In conclusion, I again wish to refer to a statement in President Roosevelt's letter in which he said that winning the war will be futile *unless* "we lay the foundations for the kind of peace and readjustment that will guarantee the preservation of those aspects of American life for which the war is fought." Colleges and universities should be vital elements in helping to lay the foundations of such a permanent peace. Such a peace, however, will depend largely on the United States occupying a dominant position in world affairs as a powerful, fully armed nation always ready to defend and preserve that peace. Any idea that when peace comes we can then again pursue a national policy of isolationism is unthinkable. The cessation of actual fighting will not result in a Utopia in which we can "beat our swords into plowshares." Instead we will probably find ourselves living in a world more like an armed camp. Our Army, Navy and air force are going to be essential to our national existence for a long time to come. We are going to live in a world in which force and the ability to defend ourselves and our way of life are going to be major factors. In such a world colleges and universities must assume a greater responsibility than ever before in the education of men and women who will be fully aware of the problems of such a post-war world and our proper place in whatever world order will guarantee and maintain a lasting peace.