

THE COLLEGE TEACHER: 1959

The college teacher of today is teaching because he would be less satisfied in some other work . . . he measures the rewards of his profession largely in non-monetary terms: the excitement of research, of working with young people and stimulating their minds; the freedom to conduct his teaching program as he desires; the pleasant atmosphere of the campus and a college town . . . the college teacher is concerned that more of his promising students do not consider teaching as a career, and he sees moderate salaries as a threat to maintaining the quality of a teaching staff.

LEWIS ATHERTON

Lewis Atherton, professor of history, expressing his pleasure at alumni interest in the problems of the college teacher, voiced a note of caution:

"There is one danger, though, in emphasizing the shortcomings of the teaching profession. We must have results as well as publicity regarding the plight of the teacher. There is already a noticeable difference in the number of outstanding people coming into teaching. We are downgrading the profession by drawing on a lower intellectual level because the top students are aware of the financial limitations. Though teaching salaries have improved, they have certainly not kept pace with the inflationary trends of recent years."

Acording to Dr. Atherton, a professor friend of his on this campus has said that his department is not getting its first or second choice among young men in the field; in fact, in light of heavy competition from business and government as well as other schools, they are settling for their fifth or sixth choices. As a result this department has already suffered from the standpoint of research and publication. There is an awareness of this situation both by the department and by the administration, but there are simply no funds available to solve it.

"In our own history department," he added, "We have a problem, not of getting good young men, but of holding them. There is no problem in hiring men for all divisions with the existing salary scale but there definitely is a problem of getting and holding the good men. If a university with a staff of seven hundred men loses just ten men a year, it usually loses good men and this loss is reflected in leadership. The younger men on the faculty will not have these top men to emulate in their teaching and research."

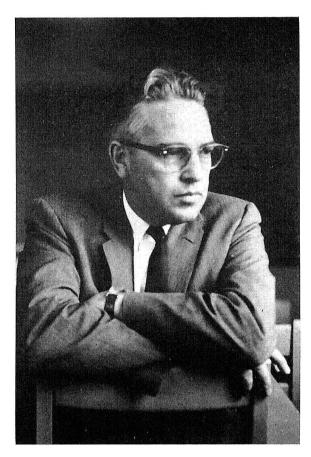
Would he go into teaching if he had it to do over again? "Yes, I would because of the opportunity in a limited number of schools to do research and writing. My ambition is to write the greatest book ever written; I may not accomplish it, but that's all



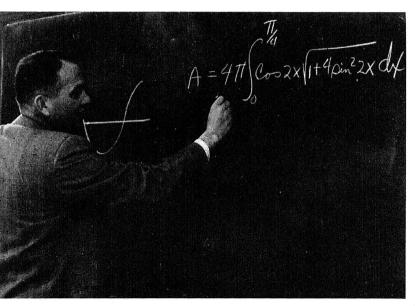
Lewis Atherton, History

right. I feel that a man should have an ambition that he may never accomplish." Incidentally, Dr. Atherton has already written three books, Mainstreet on the Middle Border, Southern Country Store, and Pioneer Merchant in Mid America, which are considered definitive works in his field, and he is now working on a fourth.

Does your teaching load interfere with this goal? "No, despite the fact that my teaching and advising load has increased greatly since I came to the University in 1936, I greatly enjoy the continuing satisfaction of teaching. In fact, I believe that good research and good teaching go hand in hand. The scholar seeking truth is certainly not in conflict with the teacher seeking truth. Research keeps the teacher alive intellectually, and his excitement at finding new material bearing on his course is bound to be reflected by his students. Without continuing research, it is too easy for the teacher to 'work out his course' and even allow it to stagnate. The ideal professor



John L. Ferguson, Education



Paul B. Burcham, Mathematics

would be the man who has taught many years and yet is just coming out of graduate school. When you do research and work with your sources, you are continually just coming out of graduate school. All teachers should be encouraged if not required to do research. I find the theory held by some of two types of graduate schools for research and for teaching a pernicious one. Research and writing is the best possible discipline for accuracy and truth. Good teaching is probing a problem just as surely as research is.

"Finally, I would like to touch on one aspect of college teaching that is not popularly recognized, the competitive nature of the work. To the businessman, teaching is a serene way of life allowing a lot of time for repose and contemplation and lacking the pressures of other forms of work. This is not true. Teachers are rewarded in direct correlation to the quality of their teaching, the value of their research and writing and the proficiency with which they perform other duties. There is a range of as much as \$5,000 a year in a professor's salary depending on how well he meets the competition of his colleagues. If I am going to continue to justify a good salary in the history department, I've got to produce. Every book by a colleague is a challenge to me. Another aspect of this competition is that a favorable climate for this competition must be provided to the top young men. If you are to get the top ones, you must be able to offer, in addition to salary, the teaching schedule, the library and the laboratory facilities that will allow them to keep abreast of the competition in their field."

JOHN L. FERGUSON

Prof. John L. Ferguson went into college teaching because it was a natural and logical thing to do. As far back as he remembers, his environment and surroundings conditioned him to look on teaching as an honorable profession. Both his parents were teachers.

"Teaching was an accepted framework in the home," he recalls. "I was aware of the respect given persons in teaching. I knew it had approval, and I viewed it as an outlet in my field."

Dr. Ferguson, a member of the faculty since 1953, is associate professor of education and has the additional title of counselor trainer. After World War II he considered education-related fields beyond a campus, but he decided to enter graduate school and stay in public education.

"I have been treated fairly here and I'm not inclined to look around," he said in his office on the top floor of Hill Hall. "I don't feel hemmed in. Teach-

ing is compatible with my interests and background, and the University has provided a suitable outlet for my special interests. Any diverting influences are relatively minor."

He is another member of the "I like it here" club, obviously, but it was suggested that surely in the daily grind—the conferences with students, the committee meetings, and myriad other functions outside the classroom—he must encounter something to tax the patience or endurance of even a dedicated faculty member. Some probing disclosed that in his case, Prof. Ferguson would be willing to forego some of the frustrations involved in the development of special programs to be sponsored by the University. At the present time he is serving as the director of a guidance and counseling training institute authorized by the U. S. Office of Education with money appropriated from the National Defense Education Act of 1958; he is also serving as the University's liaison with the State Department of Education for the development of a statewide testing program for secondary school students, also authorized under the NDEA.

"I never realized the legal problems that could arise from one short paragraph describing the provisions for guidance institutes," he said. "Three months of interpretation and one month of writing regulations —it's an education I hardly expected."

Most of his students are mature, have had teaching experience, and some have their own families.

"They are very conscientious, they want to improve their skill and ability in working with students, and in this sense we have an eager audience," he said. About one-eighth of his students relocate in teaching at the college level. Dr. Ferguson believes the salary scale in Missouri is approaching the area where many of these graduates are less likely to be attracted to other states.

"Boards of education—essentially the public—look for the extra-competent person to work with their children, but they are reluctant to buy what they'd like to have," Prof. Ferguson said. "The superintendent wants the best he can hire, but he may be limited by budget.

"The general financing of education from the elementary schools through higher education is one of the problems that our generation is going to have to face more realistically. While most of my students enter into the teaching field and are receiving somewhat more attractive salaries, there is a feeling that educational programs are somewhat subject to the whim and caprice of public opinion. If the sentiment isn't favorable, if it is felt that taxes are too high, if there is no sense of urgency in putting education on a sound financial basis, there is danger of the quality of the program being seriously impaired."

PAUL B. BURCHAM

Dr. Paul Burcham, professor of mathematics, would choose teaching again despite the fact that, "a mathematician never had it so good as he has it now." He conceded that more money could be made in industry or governmental research, but to him the appeal of freedom of choice of areas of emphasis makes teaching a rewarding and satisfying career. "In fact," he added, "many of the mathematicians I know in industry and government look forward to returning to teaching."

"Industry's appeal is primarily to young men. It is difficult if not impossible to match the salary offers in teaching. We are proud when other schools and other agencies are after our men; it is an indication of the worth of our department. We usually try to keep them; but if they go, it's still a credit to the University. To compensate for the loss, we try to attract more young men into the teaching of mathematics by allowing our graduate students to teach. I mention this proudly, and I am pleased with our results."

Dr. Burcham felt that the emphasis on science and mathematics during the recent post-sputnik period had basically increased the supply as well as the demand for young men in the field of mathematics. He warned, though, that the basic approach of the teaching of mathematics to small classes would have to change and that more responsibility would have to be put on the student if the continuing increase in enrollment is to be met, with the present supply of teachers.

Professor Burcham has just recently completed a stint as acting Associate Dean of the College of Arts and Science, the University's largest division. He has also served as long-time chairman of the Department of Mathematics and on many important committees. He explains these administrative duties by saying, "I myself am not a great research mathematician. I much prefer teaching; so, teaching and administration have been my chief areas of work. Others in the department have served chiefly in the areas of teaching and research. The important thing is that not a man in the department looks down on teaching. Every man on the staff enjoys teaching and considers it a great challenge, not a secondary responsibility."

"Speaking for the department as well as for myself," he added, "there are times that this primary function seems to get lost in the incidental responsibilities and activities of the complex organization of the University as a whole. This and the consistent emphasis on the need for public relations, the concern over what someone will think rather than over a good job of teaching, are consistent irritants. However, I feel that some form of discontent is necessary; there is a great danger of complacency in this or any other department. If things go too smoothly, it can weaken a department."

On the subject of student attitude, Burcham had this to say, "Our staff has no desire to 'crack down' on students; they simply want 'consistent and productive effort with what is already being taught. I have felt, and my recent experience in the Dean's Office confirms the feeling, that students on the whole are more serious about their work today. From the high school graduate through the graduate students, I feel that we are getting better students."

Dr. Burcham did his undergraduate work at Central College, a liberal arts school in Fayette, Missouri. Both his graduate degrees were taken at Northwestern University. Although during his thirteen years at Missouri his contact with alumni activities has naturally been limited, he said: "In the final analysis a university must be sold to its alumni or to anyone else on the accomplishments of its staff. Publishing a series of articles such as planned in your magazine should help get that job done."

PETER W. FLETCHER

Forestry Professor Peter W. Fletcher, discussing the task of education in keeping up the quality of teaching as enrollments increase, observed: "We teachers should be encouraging some of our students through the years to think about turning to teaching as a career at some time in their lives—not right away, maybe—but five, ten or fifteen years from now."

This feeling echoes the counsel of Dr. Fletcher's educator father, a member of the Penn State faculty. He suggested that his son might well consider teaching after he had devoted some years to his chosen field.

"Not nearly as many students in the School of Forestry go into teaching as have capabilities in that direction," Prof. Fletcher said. "We need in our field a reservoir of new people coming into the teaching profession. Forestry schools will pay the price for an experienced man rather than work someone up. I think we just need to have more new blood coming in, rather than shuffling the same people about from one institution to another."

When Fletcher decided to turn to teaching as a career he had built up a background of fifteen years' experience in forestry. After receiving a B.S. from Penn State in 1933 and his Master of Forestry degree at Yale in 1934, he entered the U.S. Forest Service.

His first job was in Missouri, where he was a Forest Ranger from 1934 to 1940. After further service in such states as Michigan, Ohio, West Virginia, and the Carolinas, he returned to Missouri in 1948, not as a Forest Ranger, but as a graduate student in the University, teaching part-time and working on his doctor's degree. He received his Ph.D. in Soils in 1950, when he became a full-time member of the faculty.

"Most of us on our staff have some time available for research," Prof. Fletcher said. "In my case I devote one-fifth of my time to research, four-fifths to teaching. The combination suits me fine. To me the stimulation of new research each year makes me a better teacher. I teach from the latest that I learn in research; it is the greatest thing in the background of my teaching. I like for my students at least to recognize or anticipate that there are going to be changes. In other words, I am not much of a black and white type of teacher. I want the students to realize that their textbook presents the best we have for now, but so long as we have research there will be changes."

Prof. Fletcher's comments on a variety of topics included:

On today's students: "I'm surprised that young people are as conservative as they are. For example, they ask questions about old age benefits on prospective jobs, something that would never have occurred to me as a young man."

On freedom in his work: "I certainly have all the freedom I ever desired. There has never been any interference. No one ever told me what to do or say, or what not to do and what not to say in my classes."

On Forest Service life before teaching: "I treasure every year of it, but it's for the young fellow with an adventurous spirit. Quite frequently, in forestry, you are by yourself and you want to engage in some stimulating intellectual conversation about a research problem. You have nothing but your books, trade journals and research bulletins. These can carry you just so far—they're no substitute for talking to your fellowman. That's why a college campus is ideal for the stimulation of new thoughts and ideas."

On leaving the teaching field: "It would be very difficult for me to consider seriously a job in industry at this time of my life. I am not a real high-pressure type. I doubt that I could ever compete at the fast pace required in big business."

On teaching goal: "A student seldom recalls exactly what he was taught, but the general philosophy and attitude of several of my college professors made a profound impression on me. I hope some students may be reached by me in the same way that I was influenced by these professors."

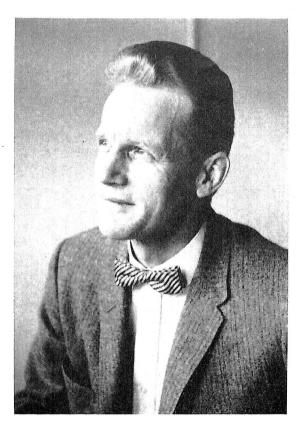
JOHN F. LASLEY

Dr. John F. Lasley, native Missourian, farmer, and professor of animal husbandry in the Division of Agriculture, believes that the potential for the supply of teachers and college professors is here, if it can be developed and promoted. He says the old adage, "Those who can, do; those who can't, teach" is not necessarily true, "especially on our campus, for the advantages of doing research and teaching in combination gives us the opportunity to develop those teachers who can and do, as well as teach."

Born in Barton County near Liberal, Mo., Prof. Lasley is qualified to speak of both the technical and practical areas of his profession. Between high school graduation and the time he entered the University, he spent five and a half years on his mother's farm in Barton County, and continues to operate a farm of his own today. After receiving his B.S. degree in Agriculture in 1938, he went to the San Carlos Apache Indian Reservation in Arizona the following year. There he had charge of the Hereford breeding program. This Reservation had 1,000 registered Herefords and 30,000 commercial cattle on 1,100 acres of farming land and 1,620,000 acres of grazing land. Before he returned to the campus as a member of the faculty in November, 1949, Lasley had completed the requirements for receiving from the University his master's degree in 1940 and the Ph.D. degree in 1943. He joined the faculty in 1949 as an associate professor of animal husbandry in charge of swine production. Two years later he was promoted to professor, dividing his time almost equally between teaching and research work in the animal breeding program.

"When I am teaching, I remind myself that I do not like to teach. Yet, when I am not teaching, I realize that if I were to choose again I would take the same profession," says Prof. Lasley. "There are always opportunities for more remunerative positions away from the campus, but a college professor has many advantages. In both my research and teaching the contact with the students is stimulating and challenging. One must keep current on the latest information and must know not just how, but why. It is rewarding to know that former students have made good and that others will. A college town provides a good place to rear a family; schools, churches, hospitals, library facilities and opportunities to continue studying and improving. There are individual freedom and professional pride if we avail ourselves of

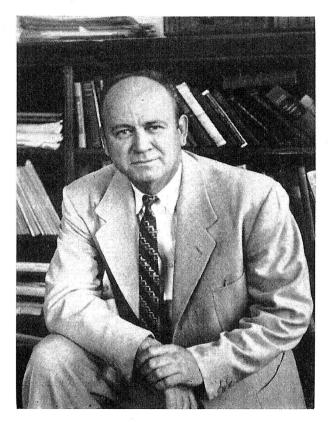
"In our department we are constantly supplied with graduate students who will make good teachers. We give them at least one semester of laboratory teach-



Peter W. Fletcher, Forestry



John F. Lasley, Animal Husbandry

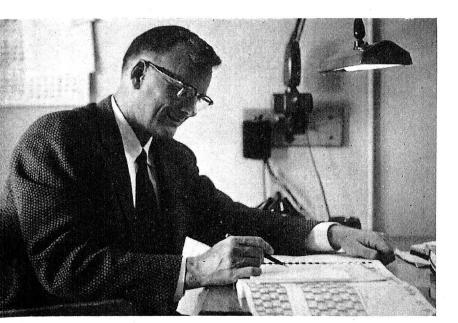


Pinkney C. Walker, Economics

ing, and can watch them develop professional qualities. If we can provide the motivation, and the salaries to hold them, our colleges can fulfill the demand. Experience is a must."

Dr. Lasley, in his work with the farmers of the state, realizes that today's farmer is a business man. He wants information, and he wants this as near the source as possible. The demand for Short Courses and for services beyond the classroom is greater than ever before.

He considers the students of today on a par with those of twenty and thirty years ago. "Many believe that the G.I. was the best student we ever had," he said. "This may be true, because he was older, more mature and seriously interested in getting an education. There are still many students who want to know what they can do for the world, not what the world can do for them. Our students need to realize, as many of us have learned, that money isn't everything, and that our associations are important."



Ellis R. Graham, Soils

PINKNEY C. WALKER

Prof. Pinkney C. Walker teaches two courses at the graduate level but he is more widely known on the campus through his General Economics course wherein he faces 420 undergraduate students three times a week in Waters Auditorium.

In less skilled hands, the attention of so large a group might wander during the lecture periods, but Prof. Walker strikes a blow at indifference through judicious use of light comment. He believes the technique makes smoother sailing for the salient points to be put across.

Naturally, the bulk of his lectures is made up by a steady flow of economic facts and theory, and the cascade overflows into thirteen sectional meetings of the large group two days a week. These smaller classes are a welcome stopping place for the students to review, digest and reappraise the material covered in the preceding lectures.

Dr. Walker's classroom enthusiasm is a carry-over from a genuine enjoyment of dealing with students of college age. He is convinced that the recent high school graduates have high potential, once they are intellectually stimulated and given motivation.

"Many high school graduates have great ability, although some haven't learned how to study," he says. "Properly motivated, the great majority of freshman students would do high quality work. Motivation is

the key. When students have a goal, what they can do is amazing.

"I think we tend to shove off on high schools the blame for our own weaknesses in developing some of these students. However, one can't help feeling at times that a better job might have been done with these students during high school, but perhaps the weakness in their background is due to lack of application."

A native of Texas, Walker has been on the University faculty since the fall of 1940. The professor of economics received his M.B.A. degree from the Wharton School of Finance and Commerce of the University of Pennsylvania, and earned his doctor's degree from the same institution. He became interested in teaching as a career when he was a graduate student.

"I really enjoy teaching, and I would not want to sacrifice my teaching load for either additional research or administrative work. I am convinced that I'm a poor administrator, and what little work I do in the administrative line is the least enjoyable of my various duties."

The University is doing a better job of making teaching here more attractive in relation to other places, Prof. Walker believes. "We have a very wholesome atmosphere in the B & P. A. School, for instance. Our school is a pleasant place to work. We have freedom and latitude in the use of our time and planning our courses. A new instructor has never had to accept the ideas of a superior on how his classes should be taught."

Dr. Walker's schedule, like that of many a colleague, is heavily filled with duties beyond the classroom. He serves on numerous committees (including one on student conduct), spends considerable time conferring with students, attends a few student functions, does some writing, and tries to stay up to date technically in the expanding field of economics.

Are there potential college teachers among his graduate students? Very few of them plan such a career, Prof. Walker says. "Teaching doesn't rank as high as it should among alternative careers with our top students. We send good bachelor graduates to good jobs as soon as they get their degrees, and many of them would become excellent teachers.

"Our society must make college teaching a relatively more attractive vocation or we shall suffer a decline and have to be satisfied with a job not done as well as we should like. I fear for that. The salary scale for college teachers has not kept pace with inflationary trends. Many people already established in education will adjust to the lower relative standard of living, but for a man at the threshold of a career, the scales are weighted against his choosing college teaching."

ELLIS R. GRAHAM

To Ellis R. Graham, professor of soils, being a college professor is rewarding in many ways. He enjoys the freedom allowed in his work, the atmosphere of campus activity, and the opportunities available in research and teaching. He sums up his satisfaction with these favorable conditions:

Freedom—"I like the freedom to teach what I believe to be important and interesting, freedom of movement and freedom of thought. It is important to me to be able to ask questions of myself and others—to be free to seek answers to many questions."

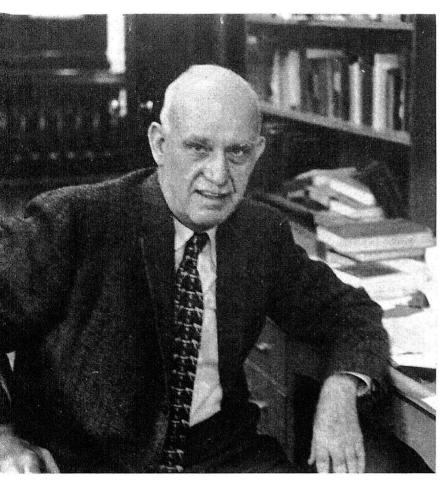
Activity—"I like the exciting and enthusiastic atmosphere of scholarship. Enthusiasm for scholarship may also be found at research centers, such as the National Laboratories; however, the students bring an element of youthful excitement which stimulates the teacher."

Research and teaching—"I am excited and stimulated when I can tell others about my observations—to have new material to talk about and to be able to keep abreast with my co-workers on this campus and others. I must actively participate in research. Any new systematic observations and collections of data will allow me to present my lecture materials in a more interesting manner, and to remain enthusiastic about my subject. Without an opportunity to travel or to participate in research activity, a teacher will find it difficult to remain youthful and open-minded."

Dr. Graham's research activities have been varied and widespread in recent years. In the summer of 1951 he went to Waite Institute at Adelaide, Australia as a Fulbright Fellow for an academic year of research on soil mineralogy and trace element deficiencies. He spent the summers of 1956 and 1957 as a temporary employe of Union Carbide at Oak Ridge, Tenn. He was a staff member at Los Alamos Scientific Laboratory in New Mexico in 1957-58.

Prof. Graham has words of praise for the Agricultural Research Station at the University. "It is ideally set up to provide teachers the opportunity to keep well up with their subject matter, to remain enthusiastic about their profession, and to make worthwhile accomplishments in research. It also supplies graduates with training in scientific methods for other research centers."

As a college professor, he has felt little or no discomfort over the problems of status, dignity, and anti-intellectualism. "These may be acute problems in some circumstances but they have not bothered me," Prof. Graham said. "The major drawback is the salary for professors, which is very low in comparison to other professions of equal training. As every one knows, college towns are usually expensive



Edward H. Weatherly, English

places to live, and in our present set-up the real purchasing power of a professor's salary is at a low level."

He noted changes in the present-day student. "The student of today does not spend as much time on the campus," Graham said. "Several years ago he lingered around the buildings, became acquainted with the teachers and others, and seemed to feel closer akin to the University. Economic changes, increased enrollment and the automobile may be responsible. However, there continues to be sufficient student help in our work, and a supply of good graduate students."

EDWARD H. WEATHERLY

"Teaching," according to Dr. Edward Weatherly, "is much harder work than most people realize. While you are teaching, the success of your class rides directly on you. It requires more concentration than any other type of work I am familiar with."

He believes there are two other areas in addition to classroom work in which the teacher should make contributions to his school—research and administration. "Only the rare teacher can do all three well, and any university is lucky to have such a man; in fact, even two of these capabilities make a man very valuable."

Teaching with its preparation and grading, research in the field of interest, and administrative duties such as student advising, university committee work and departmental administration all add up, in his words, "to a good bit more than the twelve hours a week spent in the classroom."

Prof. Weatherly threw in his lot with education thirty-one years ago, and he has been at Missouri the last twenty-two. After graduating from Missouri with an A.B. and a B.J. in 1926, Ed Weatherly went to work as the telegraph editor of the *Decatur Herald*. It took him only a year to recognize the appeal of teaching, and in 1927 he returned to Missouri for his Master's. Then it was on to Yale for his Ph.D. in English in 1932. After that he spent one year teaching at McKendree College and four years at Northwestern University before returning to the University of Missouri in 1937.

Commenting on changes on the campus during his twenty-two years back here, Professor Weatherly observed, "There has been a change in student attitude to a more serious approach to education, and this has been a basically good thing. Today's students show a definite gain in maturity and urbanity. There are not as many colorful students as there were in the past. Today most students want to fit into professional or social groups instead of wanting to develop their own individual characteristics. This is no reflection on the quality of the students but rather a comment on the direction of their interests."

However, he finds one unfortunate ramification of this student attitude: "During my days as a student there were more individualists and a great many of these individualists sought out teaching with its freedom and challenge as a desirable way of life." Without this fundamental philosophical appeal and without commensurate financial appeal, there is a "definite danger of the loss of supply of good teachers. There is no danger of running out of teachers, but there is a great danger of running out of good teachers. Financial support, certainly, and just as important, a climate of respect and understanding for the profession is important for its future."

Have teaching methods also changed? "A colleague from another department and I were discussing this problem recently, and we agreed that there had been a marked change in teaching methods during recent years. We are teaching more things but teaching them less thoroughly than we learned as students. We also agreed that this broadening of scope in education has been inevitable in view of the broadening of the field of learning. The responsibility to new knowledge demands sacrifice of some already known."



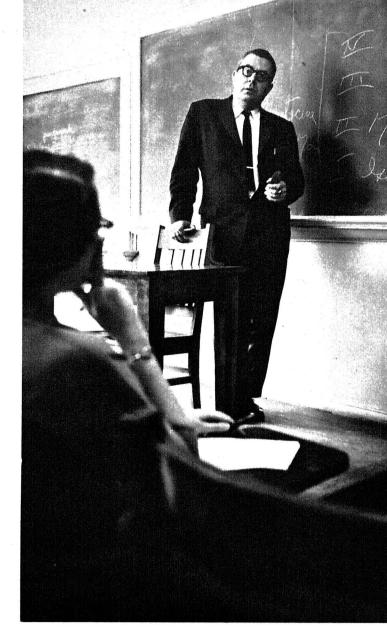
"If I were sitting here and the whole outside world were indifferent to what I was doing, I would still want to be doing just what I am."

I'VE ALWAYS FOUND IT SOMEWHAT HARD TO SAY JUST WHY I CHOSE TO BE A PROFESSOR.

There are many reasons, not all of them tangible things which can be pulled out and explained. I still hear people say, "Those who can, do; those who can't, teach." But there are many teachers who can. They are teachers because they have more than the usual desire to communicate. They are excited enough about something to want to tell others, have others love it as they love it, tell people the how of something, and the why.

I like to see students who will carry the intellectual spark into the world beyond my time. And I like to think that maybe I have something to do with this.





THERE IS A CERTAIN FREEDOM IN THIS JOB, TOO.

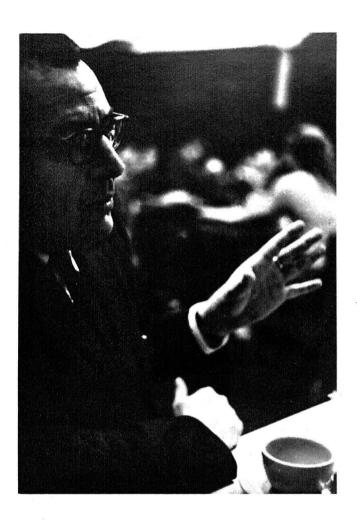
A professor doesn't punch a time clock. He is allowed the responsibility of planning his own time and activities. This freedom of movement provides something very valuable—time to think and consider.

I've always had the freedom to teach what I believe to be true. I have never been interfered with in what I wanted to say—either in the small college or in the large university. I know there have been and are infringements on academic freedom. But they've never happened to me.

I LIKE YOUNG PEOPLE. I REGARD MYSELF AS YOUNG.

I'm still eager about many of the things I was eager about as a young man. It is gratifying to see bright young men and women excited and enthusiastic about scholarship. There are times when I feel that I'm only an old worn boulder in the never-ending stream of students. There are times when I want to flee, when I look ahead to a quieter life of contemplation, of reading things I've always wanted to read. Then a brilliant and likeable human being comes along, whom I feel I can help—and this makes it all the more worthwhile. When I see a young teacher get a start, I get a vicarious feeling of beginning again.





THE COLLEGE TEACHER: 1959

PEOPLE ASK ME ABOUT THE "DRAWBACKS" IN TEACHING.

I find it difficult to be glib about this. There are major problems to be faced. There is this business of salaries, of status and dignity, of anti-intellectualism, of too much to do in too little time. But these are *problems*, not drawbacks. A teacher doesn't become a teacher in spite of them, but with an awareness that they exist and need to be solved.

AND THERE IS THIS MATTER OF "STATUS."

Terms like "egghead" tend to suggest that the intellectual is something like a toadstool—almost physically different from everyone else. America is obsessed with stereotypes. There is a whole spectrum of personalities in education, all individuals. The notion that the intellectual is somebody totally removed from what human beings are supposed to be is absurd.





TODAY MAN HAS LESS TIME ALONE THAN ANY MAN BEFORE HIM.

But we are here for only a limited time, and I would rather spend such time as I have thinking about the meaning of the universe and the purpose of man, than doing something else. I've spent hours in libraries and on park benches, escaping long enough to do a little thinking. I can be found occasionally sitting out there with sparrows perching on me, almost.



"We may always be running just to keep from falling behind. But the person who is a teacher because he wants to teach, because he is deeply interested in people and scholarship, will pursue it as long as he can."

—LOREN C. EISELEY

HE CIRCUMSTANCE is a strange one. In recent years Americans have spent more money on the trappings of higher education than ever before in history. More parents than ever have set their sights on a college education for their children. More buildings than ever have been put up to accommodate the crowds. But in the midst of this national preoccupation with higher education, the indispensable element in education—the teacher—somehow has been overlooked. The results are unfortunate—not only for college teachers, but for college teaching as well, and for all whose lives it touches. If allowed to persist, present conditions could lead to so serious a decline in the excellence of higher education that we would require generations to recover from it. Among educators, the problem is the subject of current concern and debate and experiment. What is missing, and urgently needed, is full public awareness of the problem—and full public support of measures to deal with it.

Here is a task for the college alumnus and alumna. No one knows the value of higher education better than the educated. No one is better able to take action, and to persuade others to take action, to preserve and increase its value. Will they do it? The outlines of the problem, and some guideposts to action, appear in the pages that follow.

WILL WE RUN OUT OF COLLEGE TEACHERS?

No; there will always be someone to fill classroom vacancies. But quality is almost certain to drop unless something is done quickly

The number of students enrolled in America's colleges and universities this year exceeds last year's figure by more than a quarter million. In ten years it should pass six million—nearly double today's enrollment.

The number of teachers also may have to double. Some educators say that within a decade 495,000 may be needed —more than twice the present number.

Can we hope to meet the demand? If so, what is likely to happen to the quality of teaching in the process?

"Great numbers of youngsters will flood into our colleges and universities whether we are prepared or not," a report of the Carnegie Foundation for the Advancement of Teaching has pointed out. "These youngsters will be taught—taught well or taught badly. And the demand for teachers will somehow be at least partly met—if not with well-prepared teachers then with ill-prepared, if not with superior teachers then with inferior ones."

OST IMMEDIATE is the problem of finding enough qualified teachers to meet classes next fall. College administrators must scramble to do so.

"The staffing problems are the worst in my 30 years' experience at hiring teaching staff," said one college president, replying to a survey by the U.S. Office of Education's Division of Higher Education.

"The securing and retaining of well-trained, effective teachers is the outstanding problem confronting all colleges today," said another.

One logical place to start reckoning with the teacher shortage is on the present faculties of American colleges and universities. The shortage is hardly alleviated by the fact that substantial numbers of men and women find it necessary to leave college teaching each year, for largely financial reasons. So serious is this problem—and so relevant is it to the college alumnus and alumna—that a separate article in this report is devoted to it.

The scarcity of funds has led most colleges and universities to seek at least short-range solutions to the teacher shortage by other means.

Difficulty in finding young new teachers to fill faculty vacancies is turning the attention of more and more administrators to the other end of the academic line, where tried and able teachers are about to retire. A few institutions have modified the upper age limits for faculty. Others are keeping selected faculty members on the payroll past the usual retirement age. A number of institutions are filling their own vacancies with the cream of the men and women retired elsewhere, and two organizations, the Association of American Colleges and the American Association of University Professors, with the aid of a grant from the Ford Foundation, have set up a "Retired Professors Registry" to facilitate the process.

Old restraints and handicaps for the woman teacher are disappearing in the colleges. Indeed, there are special opportunities for her, as she earns her standing alongside the man who teaches. But there is no room for complacency here. We can no longer take it for granted that the woman teacher will be any more available than the man, for she exercises the privilege of her sex to change her mind about teaching as about other matters. Says Dean Nancy Duke Lewis of Pembroke College: "The day has passed when we could assume that every woman who earned her Ph.D. would go into college teaching. She needs something positive today to attract her to the colleges because of the welcome that awaits her talents in business, industry, government, or the foundations. Her freedom to choose comes at a time when undergraduate women particularly need distinguished women scholars to







inspire them to do their best in the classroom and laboratory—and certainly to encourage them to elect college teaching as a career."

Some Hard-Pressed administrators find themselves forced to accelerate promotions and salary increases in order to attract and hold faculty members. Many are being forced to settle for less qualified teachers.

In an effort to attract and keep teachers, most colleges are providing such necessities as improved research facilities and secretarial help to relieve faculty members of paperwork and administrative burdens, thus giving faculty members more time to concentrate on teaching and research.

In the process of revising their curricula many colleges are eliminating courses that overlap one another or are considered frivolous. Some are increasing the size of lecture classes and eliminating classes they deem too small.

Finally, somewhat in desperation (but also with the firm conviction that the technological age must, after all, have something of value to offer even to the most basic and fundamental exercises of education), experiments are being conducted with teaching by films and television.

At Penn State, where televised instruction is in its ninth semester, TV has met with mixed reactions. Students consider it a good technique for teaching courses with large enrollments—and their performance in courses employing television has been as good as that of students having personal contact with their teachers. The reaction of faculty members has been less favorable. But acceptance appears to be growing: the number of courses offered on television has grown steadily, and the number of faculty members teaching via TV has grown, also.

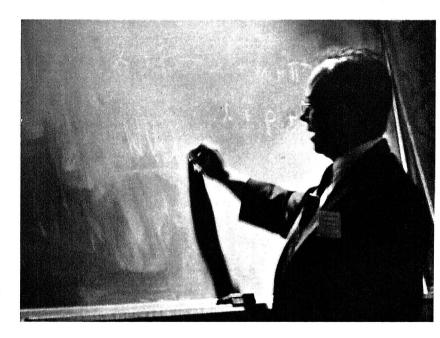
Elsewhere, teachers are far from unanimity on the subject of TV. "Must the TV technicians take over the colleges?" asked Professor Ernest Earnest of Temple University in an article title last fall. "Like the conventional lecture system, TV lends itself to the sausage-stuffing concept of education," Professor Earnest said. The classroom, he argued, "is the place for testing ideas and skills, for the interchange of ideas"—objectives difficult to attain when one's teacher is merely a shadow on a fluorescent screen.

The TV pioneers, however, believe the medium, used properly, holds great promise for the future.

For college teaching fall far short of meeting the demand. The Ph.D., for example, long regarded by many colleges and universities as the ideal "driver's license" for teachers, is awarded to fewer than 9,000 persons per year. Even if, as is probable, the number of students enrolled in Ph.D. programs rises over the next







few years, it will be a long time before they have traveled the full route to the degree.

Meanwhile, the demand for Ph.D.'s grows, as industry, consulting firms, and government compete for many of the men and women who do obtain the degree. Thus, at the very time that a great increase is occurring in the number of undergraduates who must be taught, the supply of new college teachers with the rank of Ph.D. is even shorter than usual.

"During each of the past four years," reported the National Education Association in 1958, "the average level of preparation of newly employed teachers has fallen. Four years ago no less than 31.4 per cent of the new teachers held the earned doctor's degree. Last year only 23.5 per cent were at this high level of preparation."

Ph.D., to which educators are directing their attention:

▶ The Ph.D. program, as it now exists in most graduate schools, does not sufficiently emphasize the development of teaching skills. As a result, many Ph.D.'s go into teaching with little or no idea how to teach, and make a mess of it when they try. Many who don't go into teaching might have done so, had a greater emphasis been laid upon it when they were graduate students.

- ▶ The Ph.D. program is indefinite in its time requirements: they vary from school to school, from department to department, from student to student, far more than seems warranted. "Generally the Ph.D. takes at least four years to get," says a committee of the Association of Graduate Schools. "More often it takes six or seven, and not infrequently ten to fifteen. . . . If we put our heads to the matter, certainly we ought to be able to say to a good student: 'With a leeway of not more than one year, it will take you so and so long to take the Ph.D.'"
- "Uncertainty about the time required," says the Association's Committee on Policies in Graduate Education, "leads in turn to another kind of uncertainty—financial uncertainty. Doubt and confusion on this score have a host of disastrous effects. Many superior men, facing unknowns here, abandon thoughts about working for a Ph.D. and realistically go off to law or the like..."

LTHOUGH ROUGHLY HALF of the teachers in America's colleges and universities hold the Ph.D., more than three quarters of the newcomers to college and university teaching, these days, don't have one. In the years ahead, it appears inevitable that the proportion of Ph.D.'s to non-Ph.D.'s on America's faculties will diminish.

Next in line, after the doctorate, is the master's degree.

For centuries the master's was "the" degree, until, with the growth of the Ph.D. in America, it began to be moved into a back seat. In Great Britain its prestige is still high.

But in America the M.A. has, in some graduate schools, deteriorated. Where the M.A.'s standards have been kept high, on the other hand, able students have been able to prepare themselves, not only adequately but well, for college teaching.

Today the M.A. is one source of hope in the teacher shortage. "If the M.A. were of universal dignity and good standing," says the report of the Committee on Policies in Graduate Education, "... this ancient degree could bring us succor in the decade ahead....

"The nub of the problem... is to get rid of 'good' and 'bad' M.A.'s and to set up generally a 'rehabilitated' degree which will have such worth in its own right that a man entering graduate school will consider the possibility of working toward the M.A. as the first step to the Ph.D...."

One problem would remain. "If you have a master's degree you are still a mister and if you have a Ph.D., no matter where it is from, you are a doctor," Dean G. Bruce Dearing, of the University of Delaware, has said. "The town looks at you differently. Business looks at you differently. The dean may; it depends on how discriminating he is."

The problem won't be solved, W. R. Dennes, former dean of the graduate school of the University of California at Berkeley, has said, "until universities have the courage ... to select men very largely on the quality of work they have done and soft-pedal this matter of degrees."

A point for parents and prospective students to remember—and one of which alumni and alumnae might remind them—is that counting the number of Ph.D.'s in a college catalogue is not the only, or even necessarily the best, way to judge the worth of an educational institution or its faculty's abilities. To base one's judgment solely on such a count is quite a temptation, as William James noted 56 years ago in "The Ph.D. Octopus": "The dazzled reader of the list, the parent or student, says to himself, 'This must be a terribly distinguished crc vd—their titles shine like the stars in the firmament; Ph.D.'s, Sc.D.'s, and Litt.D.'s bespangle the page as if they were sprinkled over it from a pepper caster.'"

The Ph.D. will remain higher education's most honored earned degree. It stands for a depth of scholarship and productive research to which the master has not yet addressed himself so intensively. But many educational leaders expect the doctoral programs to give more em-

phasis to teaching. At the same time the master's degree will be strengthened and given more prestige.

In the process the graduate schools will have taken a long step toward solving the shortage of qualified college teachers.

Some of the Changes being made by colleges and universities to meet the teacher shortage constitute reasonable and overdue reforms. Other changes are admittedly desperate—and possibly dangerous—attempts to meet today's needs.

The central problem is to get more young people interested in college teaching. Here, college alumni and alumnae have an opportunity to provide a badly needed service to higher education and to superior young people themselves. The problem of teacher supply is not one with which the college administrator is able to cope alone.

President J. Seelye Bixler, of Colby College, recently said: "Let us cultivate a teacher-centered point of view. There is tragedy as well as truth in the old saying that in Europe when you meet a teacher you tip your hat, whereas over here you tap your head. Our debt to our teachers is very great, and fortunately we are beginning to realize that we must make some attempt to balance the account. Money and prestige are among the first requirements.

"Most important is independence. Too often we sit back with the comfortable feeling that our teachers have all the freedom they desire. We forget that the payoff comes in times of stress. Are we really willing to allow them independence of thought when a national emergency is in the offing? Are we ready to defend them against all pressure groups and to acknowledge their right to act as critics of our customs, our institutions, and even our national policy? Evidence abounds that for some of our more vociferous compatriots this is too much. They see no reason why such privileges should be offered or why a teacher should not express his patriotism in the same outworn and often irrelevant shibboleths they find so dear and so hard to give up. Surely our educational task has not been completed until we have persuaded them that a teacher should be a pioneer, a leader, and at times a nonconformist with a recognized right to dissent. As Howard Mumford Jones has observed, we can hardly allow ourselves to become a nation proud of machines that think and suspicious of any man who tries to."

By lending their support to programs designed to improve the climate for teachers at their own colleges, alumni can do much to alter the conviction held by many that teaching is tolerable only to martyrs.

WHAT PRICE DEDICATION?

Most teachers teach because they love their jobs. But low pay is forcing many to leave the profession, just when we need them most

EVERY TUESDAY EVENING for the past three and a half months, the principal activity of a 34-year-old associate professor of chemistry at a first-rate midwestern college has centered around Section 3 of the previous Sunday's New York Times. The Times, which arrives at his office in Tuesday afternoon's mail delivery, customarily devotes page after page of Section 3 to large help-wanted ads, most of them directed at scientists and engineers. The associate professor, a Ph.D., is jobhunting.

"There's certainly no secret about it," he told a recent visitor. "At least two others in the department are looking, too. We'd all give a lot to be able to stay in teaching; that's what we're trained for, that's what we like. But we simply can't swing it financially."

"I'm up against it this spring," says the chairman of the physics department at an eastern college for women. "Within the past two weeks two of my people, one an associate and one an assistant professor, turned in their resignations, effective in June. Both are leaving the field—one for a job in industry, the other for government work. I've got strings out, all over the country, but so far I've found no suitable replacements. We've always prided ourselves on having Ph.D.'s in these jobs, but it looks as if that's one resolution we'll have to break in 1959-60."

"We're a long way from being able to compete with industry when young people put teaching and industry on the scales," says Vice Chancellor Vern O. Knudsen of UCLA. "Salary is the real rub, of course. Ph.D.'s in physics here in Los Angeles are getting \$8-12,000 in

industry without any experience, while about all we can offer them is \$5,500. Things are not much better in the chemistry department."

One young Ph.D. candidate sums it up thus: "We want to teach and we want to do basic research, but industry offers us twice the salary we can get as teachers. We talk it over with our wives, but it's pretty hard to turn down \$10,000 to work for less than half that amount."

"That woman you saw leaving my office: she's one of our most brilliant young teachers, and she was ready to leave us," said a women's college dean recently. "I persuaded her to postpone her decision for a couple of months, until the results of the alumnae fund drive are in. We're going to use that money entirely for raising salaries, this year. If it goes over the top, we'll be able to hold some of our best people. If it falls short. . . I'm on the phone every morning, talking to the fund chairman, counting those dollars, and praying."

United States and Canada are enormous. It has reached a point of crisis in public institutions and in private institutions, in richly endowed institutions as well as in poorer ones. It exists even in Catholic colleges and universities, where, as student populations grow, more and more laymen must be found in order to supplement the limited number of clerics available for teaching posts.

"In a generation," says Seymour E. Harris, the distinguished Harvard economist, "the college professor has lost 50 per cent in economic status as compared to the average American. His real income has declined sub-

stantially, while that of the average American has risen by 70-80 per cent."

Figures assembled by the American Association of University Professors show how seriously the college teacher's economic standing has deteriorated. Since 1939, according to the AAUP's latest study (published in 1958), the purchasing power of lawyers rose 34 per cent, that of dentists 54 per cent, and that of doctors 98 per cent. But at the five state universities surveyed by the AAUP, the purchasing power of teachers in all ranks rose only 9 per cent. And at twenty-eight privately controlled institutions, the purchasing power of teachers' salaries dropped by 8.5 per cent. While nearly everybody else in the country was gaining ground spectacularly, teachers were losing it.

The AAUP's sample, it should be noted, is not representative of all colleges and universities in the United States and Canada. The institutions it contains are, as the AAUP says, "among the better colleges and universities in the country in salary matters." For America as a whole, the situation is even worse.

The National Education Association, which studied the salaries paid in the 1957–58 academic year by more than three quarters of the nation's degree-granting institutions and by nearly two thirds of the junior colleges, found that half of all college and university teachers earned less than \$6,015 per year. College instructors earned a median salary of only \$4,562—not much better than the median salary of teachers in public elementary schools, whose economic plight is well known.

The implications of such statistics are plain.

"Higher salaries," says Robert Lekachman, professor of economics at Barnard College, "would make teaching a reasonable alternative for the bright young lawyer, the bright young doctor. Any ill-paid occupation becomes something of a refuge for the ill-trained, the lazy, and the incompetent. If the scale of salaries isn't improved, the quality of teaching won't improve; it will worsen. Unless Americans are willing to pay more for higher education, they will have to be satisfied with an inferior product."

Says President Margaret Clapp of Wellesley College, which is devoting all of its fund-raising efforts to accumulating enough money (\$15 million) to strengthen faculty salaries: "Since the war, in an effort to keep alive the profession, discussion in America of teachers' salaries has necessarily centered on the minimums paid. But insofar as money is a factor in decision, wherever minimums only are stressed, the appeal is to the underprivileged and the timid; able and ambitious youths are not likely to listen."



PEOPLE IN SHORT SUPPLY:

It appears certain that if college teaching is to attract and hold top-grade men and women, a drastic step must be taken: salaries must be doubled within five to ten years.

There is nothing extravagant about such a proposal; indeed, it may dangerously understate the need. The current situation is so serious that even doubling his salary would not enable the college teacher to regain his former status in the American economy.

Professor Harris of Harvard figures it this way:

For every \$100 he earned in 1930, the college faculty member earned only \$85, in terms of 1930 dollars, in 1957. By contrast, the average American got \$175 in 1957 for every \$100 he earned in 1930. Even if the professor's salary is doubled in ten years, he will get only a



TEACHERS IN THE MARKETPLACE

\$70 increase in buying power over 1930. By contrast, the average American is expected to have \$127 more buying power at the end of the same period.

In this respect, Professor Harris notes, doubling faculty salaries is a modest program. "But in another sense," he says, "the proposed rise seems large indeed. None of the authorities . . . has told us where the money is coming from." It seems quite clear that a fundamental change in public attitudes toward faculty salaries will be necessary before significant progress can be made.

For some, it is a matter of convincing taxpayers and state legislators that appropriating money for faculty

salaries is even more important than appropriating money for campus buildings. (Curiously, buildings are usually easier to "sell" than pay raises, despite the seemingly obvious fact that no one was ever educated by a pile of bricks.)

For others, it has been a matter of fund-raising campaigns ("We are writing salary increases into our 1959-60 budget, even though we don't have any idea where the money is coming from," says the president of a privately supported college in the Mid-Atlantic region); of finding additional salary money in budgets that are already spread thin ("We're cutting back our library's book budget again, to gain some funds in the salary accounts"); of tuition increases ("This is about the only private enterprise in the country which gladly subsidizes its customers; maybe we're crazy"); of promoting research contracts ("We claim to be a privately supported university, but what would we do without the AEC?"); and of bargaining.

"The tendency to bargain, on the part of both the colleges and the teachers, is a deplorable development," says the dean of a university in the South. But it is a growing practice. As a result, inequities have developed: the teacher in a field in which people are in short supply or in industrial demand—or the teacher who is adept at "campus politics"—is likely to fare better than his colleagues who are less favorably situated.

"Before you check with the administration on the actual appointment of a specific individual," says a faculty man quoted in the recent and revealing book, The Academic Marketplace, "you can be honest and say to the man, 'Would you be interested in coming at this amount?' and he says, 'No, but I would be interested at this amount.'" One result of such bargaining has been that newly hired faculty members often make more money than was paid to the people they replace—a happy circumstance for the newcomers, but not likely to raise the morale of others on the faculty.

"We have been compelled to set the beginning salary of such personnel as physics professors at least \$1,500 higher than salaries in such fields as history, art, physical education, and English," wrote the dean of faculty in a state college in the Rocky Mountain area, in response to a recent government questionnaire dealing with salary practices. "This began about 1954 and has worked until the present year, when the differential perhaps may be increased even more."

Bargaining is not new in Academe (Thorstein Veblen referred to it in *The Higher Learning*, which he wrote in

1918), but never has it been as widespread or as much a matter of desperation as today. In colleges and universities, whose members like to think of themselves as equally dedicated to all fields of human knowledge, it may prove to be a weakening factor of serious proportions.

Many colleges and universities have managed to make modest across-the-board increases, designed to restore part of the faculty's lost purchasing power. In the 1957–58 academic year, 1,197 institutions, 84.5 per cent of those answering a U.S. Office of Education survey question on the point, gave salary increases of at least 5 per cent to their faculties as a whole. More than half of them (248 public institutions and 329 privately supported institutions) said their action was due wholly or in part to the teacher shortage.

Others have found fringe benefits to be a partial answer. Providing low-cost housing is a particularly successful way of attracting and holding faculty members; and since housing is a major item in a family budget, it is as good as or better than a salary increase. Oglethorpe University in Georgia, for example, a 200-student, private, liberal arts institution, long ago built houses on campus land (in one of the most desirable residential areas on the outskirts of Atlanta), which it rents to faculty members at about one-third the area's going rate. (The cost of a three-bedroom faculty house: \$50 per month.) "It's our major selling point," says Oglethorpe's president, Donald Agnew, "and we use it for all it's worth."

Dartmouth, in addition to attacking the salary problem itself, has worked out a program of fringe benefits that includes full payment of retirement premiums (16 per cent of each faculty member's annual salary), group insurance coverage, paying the tuition of faculty children at any college in the country, liberal mortgage loans, and contributing to the improvement of local schools which faculty members' children attend.

Taking care of trouble spots while attempting to whittle down the salary problem as a whole, searching for new funds while reapportioning existing ones, the colleges and universities are dealing with their salary crises as best they can, and sometimes ingeniously. But still the gap between salary increases and the rising figures on the Bureau of Labor Statistics' consumer price index persists.

First, stringent economies must be applied by educational institutions themselves. Any waste that occurs, as well as most luxuries, is probably being subsidized by low salaries. Some "waste" may be hidden

in educational theories so old that they are accepted without question; if so, the theories must be re-examined and, if found invalid, replaced with new ones. The idea of the small class, for example, has long been honored by administrators and faculty members alike; there is now reason to suspect that large classes can be equally effective in many courses—a suspicion which, if found correct, should be translated into action by those institutions which are able to do so. Tuition may have to be increased—a prospect at which many public-college, as well as many private-college, educators shudder, but which appears justified and fair if the increases can be tied to a system of loans, scholarships, and tuition rebates based on a student's or his family's ability to pay.

Second, massive aid must come from the public, both in the form of taxes for increased salaries in state and municipal institutions and in the form of direct gifts to both public and private institutions. Anyone who gives money to a college or university for unrestricted use or earmarked for faculty salaries can be sure that he is making one of the best possible investments in the free world's future. If he is himself a college alumnus, he may consider it a repayment of a debt he incurred when his college or university subsidized a large part of his own education (virtually nowhere does, or did, a student's tuition cover costs). If he is a corporation executive or director. he may consider it a legitimate cost of doing business; the supply of well-educated men and women (the alternative to which is half-educated men and women) is dependent upon it. If he is a parent, he may consider it a premium on a policy to insure high-quality education for his children-quality which, without such aid, he can be certain will deteriorate.

Plain talk between educators and the public is a third necessity. The president of Barnard College, Millicent C. McIntosh, says: "The 'plight' is not of the faculty, but of the public. The faculty will take care of themselves in the future either by leaving the teaching profession or by never entering it. Those who care for education, those who run institutions of learning, and those who have children-all these will be left holding the bag." It is hard to believe that if Americans—and particularly college alumni and alumnae-had been aware of the problem, they would have let faculty salaries fall into a sad state. Americans know the value of excellence in higher education too well to have blithely let its basic element—excellent teaching-slip into its present peril. First we must rescue it; then we must make certain that it does not fall into disrepair again.

Some Questions for Alumni and Alumnae

- ▶ Is your Alma Mater having difficulty finding qualified new teachers to fill vacancies and expand its faculty to meet climbing enrollments?
- ► Has the economic status of faculty members of your college kept up with inflationary trends?
- Are the physical facilities of your college, including laboratories and libraries, good enough to attract and hold qualified teachers?
- ▶ Is your community one which respects the college teacher? Is the social and educational environment of your college's "home town" one in which a teacher would like to raise his family?
- Are the restrictions on time and freedom of teachers at your college such as to discourage adventurous research, careful preparation of instruction, and the expression of honest conviction?
- ► To meet the teacher shortage, is your college forced to resort to hiring practices that are unfair to segments of the faculty it already has?
- ► Are courses of proved merit being curtailed? Are classes becoming larger than subject matter or safeguards of teacher-student relationships would warrant?
- Are you, as an alumnus, and your college as an institution, doing everything possible to encourage talented young people to pursue careers in college teaching?

If you are dissatisfied with the answers to these questions, your college may need help. Contact alumni officials at your college to learn if your concern is justified. If it is, register your interest in helping the college authorities find solutions through appropriate programs of organized alumni cooperation.

EDITORIAL STAFF

DAVID A. BURR
The University of Oklahoma

DAN H. FENN, Jr. Harvard University

RANDOLPH L. FORT Emory University

CORBIN GWALTNEY
The Johns Hopkins University

L. FRANKLIN HEALD
The University of New Hampshire

CHARLES M. HELMKEN St. John's University

JEAN D. LINEHAN
The American Alumni Council

ROBERT L. PAYTON Washington University

MARIAN POVERMAN

Barnard College

FRANCES PROVENCE

Baylor University

ROBERT M. RHODES

Lehigh University

WILLIAM SCHRAMM
The University of Pennsylvania

VERNE A. STADTMAN The University of California

FREDERIC A. STOTT, Jr. *Phillips Academy, Andover*

FRANK J. TATE
The Ohio State University

ERIK WENSBERG Columbia University

CHARLES E. WIDMAYER

Dartmouth College

REBA WILCOXON
The University of Arkansas

CHESLEY WORTHINGTON

Brown University

ACKNOWLEDGMENTS

Photographs: Alan J. Bearden Printing: R. R. Donnelley & Sons Co.

This survey was made possible in part by funds granted by Carnegie Corporation of New York. That Corporation is not, however, the author, owner, publisher, or proprietor of this publication and is not to be understood as approving by virtue of its grant any of the statements made or views expressed therein.

The editors are indebted to Loren C. Eiseley, professor of anthropology at the University of Pennsylvania, for his contributions to the introductory picture section of this report.

No part of this report may be reprinted without express permission of the editors.

PRINTED IN U.S.A.