METHODS OF REPORTING THE COLLEGE TEACHER'S LOAD AND ADMINISTRATIVE EFFICIENCY

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The present method of determining the kind and amount of the teacher's work in Colorado State Teachers College consists essentially of asking him to make a report of his teaching hours per week, the names of the courses, and the number and size of the classes taught. In addition to this there may be some note of publications, addresses, and committee work. This article is written for the purpose of showing the inadequacy of this method from the standpoint of administrative equity and efficiency, and of making suggestions for the use of another if not a better method.

To throw some light upon the adequacy of the present methods of determining and regulating the teacher's load in our college, the members of the faculty were requested by the President of the College to fill in two blanks. The one, entitled "Teacher's Daily Schedule," makes provision for reporting the data which are regularly collected at the opening of each quarter. The other, entitled "Total Weekly Load," provides for a report of the teacher's total unweighted teaching load per week and of all other regular college activities in itemized form, including those activities for which there is extra pay. Both of these blanks are reproduced on following pages. During the winter quarter of 1923, the members of the faculty were instructed to keep an accurate daily record of the amount of time which they devoted to each type of college activity performed during the third, sixth, and ninth weeks of the quarter. Special blanks were furnished for the purpose of keeping these records. If the weeks designated were unusual for any of the teachers from the standpoint of their school activities, they were instructed to make their records during the following week. At the close of the ninth week they were asked to average their records and enter the averages on the "Total Weekly Load" blank. If they engaged in school activities not provided for by the blank, they were directed to list these in the spaces left for that purpose.

TEACHER'S DAILY SCHEDULE

NAME DEPT. QUARTER YEAR

Course		Class Period		Days on which Class Recites					No. in Class	Class Hours Per Week				Hours Credit	Room
Name	No.	From	To	M	T	W	T	F		Lab.Shop Phys. Ex.	Studio	Sched. Conf.	Lecture Recita.		
Unweighted Total										2-3 x	3-4 x	1-2 x	1 x		
Weighted Total															

TOTAL WEEKLY LOAD

Activity	Hrs. Per Week	Activity	Hrs. Per Week
Unweighted total		Coaching	
Office work		Museum	
Committee work		Repairing	
Research		Preparing plays	
Conference		Ordering supplies, etc.	
Gen. supervision		Orchestra	
Student organizations		Glee Club	
Faculty meetings		Chorus	
Program making		Phys. examinations	
Faculty clubs		Mental examinations	
Catalog work		Library work	
Prof. correspondence			
Prof. reading			
Public addresses, etc.			
Prep. for courses			
Grading notebooks, etc.			
Extension work without pay			
Total		Total	
Sum of Totals			

Activities With Extra Pay

Total		Total	
Sum of Totals			

Both of the cards were filled in by sixty-three members of the faculty, although two of them failed to itemize their work as provided for by the "Total Weekly Load" card. Three of the members of the faculty failed to fill in the card. One of these had a teaching load of only four hours per week, but the other two were full-time instructors. For a fourth member of the faculty, the card was misplaced. Data were therefore received from over ninety-four per cent of the faculty.

In Colorado State Teachers College one of the avowed purposes of the teacher's daily schedule, or the record of his teaching load, is its use as a gauge of the amount of work done by each teacher. In a printed notice by the late President Crabbe to the members of the faculty concerning the teacher's load these words appear, "The 'measuring stick' of the teacher's work in our college is the teaching load." By means of this "measuring stick," the load of the different teachers was supposed to be fairly well equalized. Let us see how well this purpose was realized by using a different method of measuring the teacher's load—the method of counting the total number of hours per week spent in regular college activities or what we shall designate as the total time-load method. In Table I, the total time-load distributions are given for different divisions of the college as well as for the college as a whole. In computing the medians of this table it was assumed that a step on the scale extended from the beginning of one unit to the beginning of the next. It should also be remembered that the averages were computed for ungrouped measures.

TABLE I. TOTAL WEEKLY TIME-LOAD

Hours Per Week	College Division	Elementary School	High School	Music Division	Library Division	Entire College
75	1					1
72						
69		1	1			2
66	1					1
63	3		1			4
60	2					2
57	4	3	1			8
54	3		1		1	5
51	4	1	1			6
48	4	2			1	7
45	2	2	1			5
42	3	1			3	7
39	3					3
36	1					1
33	1		1	1		3
30	2	1		3		6
27						
24	1			1		2
Total	35	11	7	5	5	63
Median	51.38	49.25	55.50	31.50	44.50	49.54
Average	50.58	51.02	54.72	31.01	46.10	49.23

The enormous variations in the number of hours reported, even if these reports are far from accurate, show the inadequacy of the teaching load method for the purpose of equalizing the teacher's load. In the college division the smallest number of hours reported is 24 and the largest number is 77, a difference of 53 hours. This number is higher than the median number of hours for all but one of the divisions. In the elementary school the extreme range is from 30 to 69 hours, a difference of 39 hours, and in the high school the range extends from 34 to 70, a difference of 36 hours. For the music and the library divisions, the extreme ranges are 8 and 12 respectively. In all but two of the divisions of Table I there are some teachers, who, according to their reports, devote from two to three times as much time to their regular college activities as other teachers. From the standpoint of variation, the results of this investigation are very similar to those obtained in a survey of the college made in 1917-18. In the survey, the smallest number of hours reported was 23, and the largest number was 68, a difference of 45 hours. It is perhaps worthy of note that since the survey there has been practically a complete change in the personnel of the faculty.

A comparison of the medians of the several divisions shows that the teachers of the high school as a group spend about five hours per week more time on their regular college work than do those of the college and the elementary school divisions. They report about ten hours per week more than the librarians and twenty-four hours more than the music division. This latter difference is as large as the total number of hours per week reported by two individuals. The normal weekly teaching load of the high school teacher is four hours per week more than that of the teacher in the college under the assumption that it is less laborious to teach in the high school than in the college, an assumption which is perhaps unwarranted.

As measured by the total time-load, the teaching load has been shown to be inadequate for the purpose of equalizing the teacher's load both for individuals and for the larger divisions of the college. The same inadequacy will appear from a comparison of the average total time-load of the several departments of the college division. These averages are given in Table II. Because there was only one teacher in each of the departments of history, geography, biology, chemistry, physics and agriculture, the results of these departments were combined into two groups. This procedure reduced the extreme range for the departments by twenty hours.

TABLE II. THE AVERAGE WEEKLY TIME-LOAD FOR DEPARTMENTS

Department	Average Time-Load	Department	Average Time-Load
Home Economics	62.77	Mathematics	49.58
Psychology	54.12	Industrial Arts	49.52
English	54.01	Education	49.01
Dean of Women	53.46	Commercial Arts	48.58
History & Geography	51.45	Sciences & Agriculture	45.27
Fine Arts	51.28	Physical Education	44.71

The difference between the lowest and the highest departments is about 18 hours, and the difference between the second lowest and the second highest departments is about 9 hours. The teachers of the department with the highest total time-load do about two days' work per week more than the teachers of the department reporting the lowest time-load, and the teachers of the department reporting the second highest time-load do about one day's work per week more than the teachers of the department reporting the second lowest time-load. From the results given in Table II, as well as from those given in Table I, the conclusion must be drawn that the teaching load method is inadequate for the purpose of regulating the amount of work done by the different teachers. There are some teachers who carry far too heavy a load, becoming inefficient through over-burdening, while there are others who carry too light a load, becoming inefficient through a lack of fitness for their work.

As a matter of fact, in our institution there appears to be very little connection between the teaching load and the total time-load. There are teachers who, carrying more than the normal sixteen-hour teaching load, nevertheless stand at the bottom of the list in the total load distribution. The coefficient of correlation between the teaching load and the total load is only .24. This means that if an attempt were made to predict the teacher's total load from his teaching load, the prediction would be only from three to four per cent better than a mere guess. We are obliged to conclude that, if our reports on the total time-load are reasonably accurate and a fair measure of the teacher's load, the method of controlling the teacher's load through his teaching load is practically worthless. In computing the coefficient of correlation given above, the load of such teachers as were carrying a light teaching load on account of administrative duties was not considered. The data for fifty-three teachers were used in making the computations.

From the results which were presented, it is evident that the teaching load as this is given by the teacher's daily schedule, cannot be used as an accurate gauge of the amount of time which individual teachers and groups of teachers devote to their regular school work. But the question arises what the record of the teacher's work should show. Should it show how much time the teacher spends in doing a part of his work, as it does when the teacher reports his teaching load, or should it show how much time the teacher spends in doing all of his regular college activities, as it does when the teacher reports his total time-load? Perhaps it is unimportant to know either of these. What the record of the teacher's work should show is his productiveness or service. There are at least four important features of the teacher's work which the record should show. These are the amount and difficultness of the work, its excellence or quality, and the degree of responsibility connected with it. Unfortunately, our present records cannot show any one of these features of the teacher's work with accuracy, because there is no practical method of measuring them with

reliability. It is of little or no consequence to measure the amount of work done by each teacher unless the factors of difficulty and quality can be kept constant or can be expressed in terms of amount. The disturbing factor of difficulty would be eliminated if all of the teachers produced precisely the same thing, but this of course is not the case.

There are, moreover, other disturbing factors. Even though teachers were engaged in the same kind of activity and performed their work equally well, they still could not be compared upon the basis of productiveness or the amount of service rendered, unless they worked under equally favorable conditions. Some teachers do much better work than others solely because they are favored with a better equipment, more pleasant places in which to carry on their work, and by more encouraging words and better salaries.

Teachers could be compared upon the basis of productiveness if their work were similar to that performed in many factories in which many of the workers do nothing but run the same kind of machine. This type of work carries no responsibility; the conditions under which it is performed can easily be equalized; there is no difference in difficulty because all of the workers run the same kind of machine; and the quality of the work is determined by the nature of the machine. Unfortunately for the ease of measurement, the teacher's work is not of this kind.

On account of the impossibility of measuring the teacher's service directly with a useful degree of reliability, several courses in regard to this matter may be pursued. First, all attempts at evaluating and controlling the teacher's service may be abandoned. This is what some teachers recommend. One instructor argued that the administration should not keep any record of the teacher's work, but should substitute for this, confidence in the teachers. This he thought was the best method of increasing the teacher's service. I think experience has demonstrated that some attempt at control and evaluation is better than none at all. The teacher who argued for the abandonment of all methods of control, fell many hours below the median in his total weekly time-load. Second, we may continue the present faulty methods. There are doubtless many in favor of this procedure, because it is inconvenient and annoying to make any changes. Third, attempts may be made to improve the present indirect and inadequate methods. It is possible to improve the present teaching load or part time-load method or to substitute for it the total time-load method. In the rest of this article I wish to compare the relative merits of the part time-load method with the total time-load method as a means of controlling and evaluating the teacher's work. In doing this there is no implication that such other indirect and subjective methods as occasional classroom inspections and off hand judgments should be discarded.

Neither of these methods attempts to measure the teacher's product or service directly, but each of them measures something which is

somewhat indicative of the value of the service rendered by the teacher. The part time or teaching load method shows the number and kind of subjects taught, the number and the sizes of the classes, the time when they appear on the schedule, and the amount of time devoted to actual classroom instruction. The total time-load method includes the part time-load method, but in addition to this it requires a report on the total amount of time which the teacher spends on all of his regular school work and on each one of the different types of school work in which he is engaged.

The total time-load method is somewhat more irksome and requires a little more work on the part of the teacher than the part time or teaching load method. These disadvantages may be minimized by furnishing the teachers with a blank form on which the different types of school work appear as column headings and the days of the week as sub-headings. The teacher is required to note on each day of the week the amount of time he spent on each type of school work and enter this in the proper space on the blank. These disadvantages may be still further diminished by requiring only from three to five sample reports per term. The danger, however, of this procedure is that the load weeks are padded with an extra amount of work. The total time-load method is not as annoying as it might appear to be before trial. Several instructors, after trial, stated that they were surprised to find it more interesting and instructive than annoying. One of our instructors kept his total time-load record during the entire quarter instead of only during the three weeks specified when the data for making this investigation were collected. Those who have a very heavy time-load are usually anxious for the opportunity of reporting it, and those who have a very light time-load might as well be annoyed by the task of reporting it.

It has also been urged that the total time-load method degraded teaching to the plane of common labor. I am of the opinion that no kind of honest and necessary labor should be regarded as more or less honorable than any other.

Because the total time-load method determines the total amount of time which the teacher spends on his work more accurately than the part time-load method, it is the more adequate method for securing an equitable distribution of the teacher's work. The part time-load method is about as reliable a method of determining the teacher's total time-load as is the method of getting a man's height from the measurement of his head. It might be argued that the teachers with the least native ability and the poorest preparation for their work should be obliged to put in more time than those excelling in these traits. I am inclined to think that this is the wrong attitude to take. Every teacher should be obliged to give a reasonable amount of time to his work, and the amount should vary more with strength and vigor than with other traits. Superiority of production should be rewarded in other ways than by those which encourage habits of idleness and mini-

mum effort. The organization of our institutions of learning should be severely criticised for permitting and even encouraging and compelling the best among the teachers and learners to acquire bad and slothful habits of application.

The unfairness or unsatisfactoriness of the teaching load method appears to be realized by some of our educational institutions. The presidents or deans of a half dozen institutions to whom I had occasion to write relative to the teacher's load expressed dissatisfaction with the present method. One of these institutions, the University of Washington, has made a serious attempt to correct the unfairness of the teaching load method by adopting, upon the basis of a comprehensive study made by Dr. L. V. Koos,* a rather elaborate system of weighing the different types of instruction. However, when once the weighing principle has been adopted, it leads to many complexities and inconsistencies in its application, because so many factors, the relative value of which is unknown, are involved.

There are, for example, many types of teaching, each one of which should probably have a different weighting. Among the different types of instruction we may mention the ordinary recitation, the lecture, the oral quiz, supervisional instruction, the scheduled conference, the seminar, instruction in the studio, the shop, the field, the laboratory and the gymnasium, the mixed lecture and discussion, and a large variety of other mixtures. Then there are other factors which complicate the process of weighting. Among them are the kind of subject taught and the division of the college in which it is taught; the size of the class and the repetition of the course in concurrent sections; and the growth of the subject and the experience which the teacher has had in teaching a given subject.

The teachers who give laboratory, shop and studio courses in our institution regard the teaching load method with its customary weighting as unjust. The teachers of the high school division are unable to understand why their normal teaching load should be four hours per week more than that of the teachers who teach only college classes and why this should be in spite of the fact that the teachers of the high school receive the smaller salaries. Some of the teachers who offer scheduled conference courses are of the opinion that the teaching of such courses should have the same weighting as the teaching of any other course. These are some of the difficulties into which the weighting principle is apt to lead.

The part time-load method also is inferior to the total time-load method in the number of teachers it affects. The total time-load affects all of the teachers while the teaching load does not. For example, an average of the weekly teaching load of sixty teachers for a

*Dr. L. V. Koos. Adjustment of the Teaching Load in a University. Bulletin, 1919, No. 15. Department of the Interior. Bureau of Education.

period of four quarters showed that almost fifty per cent of them taught less than the normal sixteen hours per week; twenty-three per cent taught from twelve to fifteen hours per week; twelve per cent from nine to twelve hours per week; and twelve per cent from three to six hours per week. As these teachers were not obliged to make a report on their other activities, their load was inadequately known. Those who make a report of their load indirectly through their teaching load would perfer to have those who do not carry a full teaching load make some report of their load also. It frequently happens that those who are released from teaching to do administrative and other work, carry by far the lighter time-load. The president of one of our large universities stated in a letter to me that the only load carried by the heads of departments in his institution was, according to their view, a very heavy load of responsibility. In my opinion, those who carry the heaviest time-load are usually best fitted to carry the heaviest load of responsibility.

The total time-load makes possible a statement of the length of the teacher's day to inquiring citizens. Teachers are frequently criticised for a short working day. In 1922 the Tax-Payers' League of Colorado, while making an investigation of the state educational institutions in the interest of economy, asked for a statement of the length of the teacher's working day. Had it not been for a survey of the college made several years previously, the administration could not have furnished a satisfying response to the League's request.

Another value of making a record of the total time-load grows out of the stimulus which it offers to the teacher to more constant application. Many teachers have formed bad habits of study. Their working periods are too frequently interspersed with pleasant conversations, social conferences, cheap shows, and many other pauses with a large variety of fillings. Teachers are also apt to shift frequently from one type of work to another, never doing any one type long enough to profit by the factor of fitness. Moreover, a time-record of all of the teacher's activities frequently makes him aware of his bad habits of study. All of these values were mentioned by teachers who had had some experience in keeping a record of their total time-load.

The total time-load has an advantage in that it does not put the administration under any obligations to commit itself to a prescribed number of teaching hours. If it is found desirable that some teachers should carry a heavier teaching load than others, or the reverse, this can easily be done and the whole matter checked up by means of the total time-load method. When teachers complain that their load in comparison with other teachers is too heavy, as is often the case, the problem can be referred to the total time-load record for solution.

Perhaps the most significant shortcoming of the total time-load method is the fact that teachers are tempted to falsify their reports. The reliability of the reports depends, of course, upon the moral status of the teachers as well as upon the interest which they take in the

method. If the teachers are honest and are desirous of a square deal, the above mentioned objection to the method disappears. A lack of interest leads to an error in the time, because under such conditions the time is only estimated, the whole matter being considered too unimportant to consult the watch. However, the overestimation or falsification of the time-load has in some cases a distinct advantage. If teachers constantly report a high time-load but have nothing to show for their efforts, it is quite probable that their work requires supervision. A high time-load unaccompanied by some tangible evidence, in the long run, of a high degree of productiveness or service, means bad habits of work or dishonesty or inability, the presence of any or all of which it is worth knowing.

The chief value of the total time-load method probably lies in the fact that it furnishes a basis for the intelligent supervision of the most important activities of the institution. The main, if not the sole function of an educational institution, is production or service. The service is rendered, directly or indirectly, almost entirely by the activities of the members of the faculty. Therefore, these activities should be directed with the utmost care, insight and foresight. Such direction is so indispensable to the fullest realization of the purposes of educational institutions, that it should be by far the most important business of the president of the institution, Upon this job, rather than upon political matters and the material excellence of the institution, should the president's time, efforts, training and talents be expended. But one of the factors upon which such direction depends is as complete a record of the teacher's activities as it is possible to obtain. Without such a record the activities of the members of the faculty cannot be directed most intelligently and effectively. It is very important for the administration to know about how many hours per week each teacher puts on regular school activities. Seventy-seven hours per week is too large a time-load and twenty-four hours per week is too small a time-load. In an institution where such conditions exist without any special reason, the activities of the members of the faculty are very poorly controlled. It is also very important for the administration to know in what proportion the members of the faculty distribute their time over the several activities in which they are engaged. No time spent on preparation for teaching with twenty-eight hours per week spent on so-called professional reading appears to be a distorted distribution of a teacher's efforts.

In managing the affairs of an educational institution efficiently and in such a manner as to make the members of the faculty feel that they are justly treated, it is necessary to know just how much time is devoted by each member to activities for which there is extra pay. It is hardly fair for heads of departments to spend the major portion of their time in extra pay activities while they force upon assistants the burden of doing most of the regular work of the department. It is also very important to know, in certain types of extra pay activities such as correspondence work, just how much time is spent for the extra

amount of remuneration. When teachers correct correspondence papers so rapidly that their extra earnings amount to from six to eight dollars per hour, it does not speak well for the efficiency of the institution, to say the least.

In the following pages I am giving several examples of the insight which an administrator may get into the activities of the members of the faculty from a study of the report on the total time-load. As the first example I am giving in Table III the amount of time, per teaching hour of fifty minutes, which the teachers spent in preparation for teaching, the grading of papers and notebooks, etc.

TABLE III. THE AMOUNT OF TIME PER TEACHING HOUR OF FIFTY MINUTES SPENT IN PREPARATION FOR TEACHING, GRADING PAPERS AND NOTEBOOKS, ETC.

Tenths of Hours	College Division	Elementary School	High School	Music Division	Library Division	Entire College
18	.....	1	.....	.....	.....	1
17	.....	.....	.....	.....	.....	.....
16	2	.....	.....	.....	.....	2
15	.....	.....	.....	.....	.....	.....
14	.....	.....	.....	.....	.....	.....
13	.....	.....	1	.....	.....	1
12	1	.....	.....	1	.....	2
11	1	.....	.....	.....	.....	1
10	4	1	.....	.....	.....	5
9	2	.....	.....	.....	.....	2
8	3	.....	2	.....	.....	5
7	4	1	.....	.....	1	6
6	3	2	.....	.....	.....	5
5	3	2	2	1	.....	8
4	2	4	1	1	.....	8
3	2	.....	.....	1	.....	3
2	.....	.....	1	1	.....	2
1	3	.....	.....	.....	.....	3
0	2	.....	.....	.....	.....	2
Total....	32	11	7	5	1	56
Median..	.73	.58	.58	.45	.80	.64
Average..	.72	.72	.68	.58	.72	.69

The results of Table III are expressed in tenths of hours. The average was computed for the ungrouped measures. In computing the medians, it was assumed that a step on the scale extended from the beginning of one unit to the beginning of the next, although it might have been more accurate to have assumed that a step extended from the middle of one unit to the middle of the next. It will be noticed that the variation in the amount of time spent by the different teachers in the preparation for teaching, the grading of papers, etc., is enormous. Two teachers reported that they spent no time at all in this type of activity, while three reported that they spent 1.6 or more hours for every teaching hour of 50 minutes. The type of ability which enables teachers, even after long experience, to get by without any preparation is not the most desirable kind to look for in an educational institution.

For the different divisions of the college as given in Table III, the average amount of time spent in the preparation for teaching and the grading of papers varies from .58 to .72 hours per teaching hour of 50 minutes. In terms of the median the variation is from .45 to .80. The average amount of time which the faculty as a whole spends in preparation for teaching and the grading of papers is .69 hours for every teaching hour of 50 minutes, or .83 hours per clock hour of instruction. About 13% of the teaching hours were laboratory, studio, and shop hours, for which the preparation was probably only about one-third as much as for the other types of instruction. With these hours eliminated, the amount of time spent in preparation for teaching and the grading of papers will be approximately .90 hours for every clock hour of instruction.

This figure of .90 appears to be exceedingly low in comparison with a similar one for the University of Washington, in which the teacher, whose type of instruction is mixed lecture and discussion, devotes for every clock hour of instruction, 1.41 hours to the preparation for teaching and the grading of papers. This is about one and one-half times as much time as the teachers in our institution devote to similar work. It may, however, be questioned whether our types of instruction correspond primarily to the mixed lecture and discussion type. In my opinion, they correspond more nearly to the pure lecture type in the college division. If this opinion is correct, then the teacher in our institution spends a full hour less, or only about one-half as much time, per clock hour of instruction than does the teacher in the University of Washington on the preparation for teaching and the grading of papers. Only if it is assumed that the type of instruction in our institution is altogether of the recitation type, is the amount of time devoted to the preparation for teaching and the grading of papers equal to that for this type of activity in the University of Washington. I think it is very fair to our institution to state that our teachers devote only about two-thirds as much time to the preparation for teaching and the grading of papers as is devoted to this type of activity by the teachers in the University of Washington. Perhaps it is some such difference in the amount of time spent in studying which chiefly explains the difference between college and university scholarship.

If teaching hours are combined with the hours devoted to preparation for teaching and the grading of papers, we obtain for our faculty an average of 22.66 clock hours per week. A corresponding figure for the University of Washington is 31.90, a difference of over 9 hours per week. Our working day is about one-half hour longer than the working day in the University, but in the University they spend 9 hours per week more than we do on the most worth while activities of an educational institution. Perhaps all of the variations and differences which have been pointed out in the preceding paragraphs are very desirable, but to say the least, they should not be assumed to be so.

In Table IV is given the amount of time which the teacher in our college devotes to the preparation for teaching per teaching hour of fifty minutes, exclusive of the time spent in the grading of papers, notebooks, etc.

TABLE IV. THE NUMBER OF HOURS PER TEACHING HOUR OF FIFTY MINUTES SPENT IN PREPARATION FOR TEACHING

Tenths of Hours	College Division	Elementary School	High School	Music Division	Library Division	Entire College
16	1	1	.....	.....	.....	2
15	.....	.....	.....	.....	.....	.....
14	.....	.....	.....	.....	.....	.....
13	.....	.....	.....	.....	.....	.....
12	1	.....	1	.....	.....	2
11	.....	.....	.....	.....	.....	.....
10	.....	.....	.....	.....	.....	.....
9	1	.....	.....	.....	.....	1
8	3	1	1	.....	.....	5
7	1	.....	.....	.....	.....	1
6	4	.....	1	.....	.....	5
5	3	1	.....	.....	.....	4
4	3	.....	.....	2	.....	5
3	6	2	1	.....	1	10
2	3	3	1	2	.....	9
1	4	2	1	.....	.....	7
0	2	1	1	1	.....	5
Total....	32	11	7	5	1	56
Median..	.43	.28	.35	.28	.80	.37
Average..	.50	.42	.51	.29	.72	.47

The instructors of the college division vary in the amount of time spent in preparation for teaching per teaching hour of 50 minutes from no preparation to 1.66 hours. It is probably no exaggeration to say that in some of the divisions the amount of time spent in preparation for teaching is at least one and one-half times the amount spent in other divisions.

The average amount of time spent in preparation for teaching by the college as a whole is only from .37 to .47 hours per teaching hour of 50 minutes. This amount of preparation appears to be exceedingly low. A teacher who spends only from 6 to 7 hours per week in the preparation for his teaching must fall behind the general progress of his particular field by a very considerable amount.

Although the teaching load varies considerably for the different teachers of the college, there is no correlation between the weekly weighted teaching load and the number of hours spent per week in preparation for teaching. The coefficient of correlation for these two types of activities is only .067. In our institution, therefore, it appears to make no difference how many hours the teachers are asked to teach as far as its effect on the number of hours spent in preparation is concerned. In fact, it is very probable that when the teaching load is increased beyond a certain limit, the amount of time devoted to pre-

paration for teaching must necessarily be reduced on account of the limitations of the working power of the individual. In the college division the average number of hours per week spent in teaching is a little over 15, while in the elementary school and the high school the corresponding figures are 18 and 21 respectively, but the median amount of time spent in preparation in these divisions is considerably less than in the college division.

From whatever angle the activities of the members of the faculty are viewed, there does not appear to be very much uniformity. Perhaps the diversity of tasks for the different members of the faculty is so great and perhaps their abilities vary so much that such large variations are desirable, but I am of the opinion that there would be much less variation under a better system of supervision and control.

As another illustration of how the reports on the total time-load may be used to gain an insight into the activities of the members of the faculty, I am presenting the data of Table V, in which the percentage of time spent on each type of activity is given. In Table V, are given the total number of hours per week devoted to each type of activity by all of the members of the faculty, and the percentage the total amount of time spent on each type of activity is of the amount of time spent on all types. Before data of this kind are at hand, it is impossible to regulate intelligently and effectively the amount of emphasis placed on any one type of activity. In this tabulation, the reports of only sixty-one teachers could be used because two of the teachers failed to give an itemized report of their work.

TABLE V. TYPES OF ACTIVITIES. TOTAL NUMBER OF HOURS PER WEEK DEVOTED TO EACH TYPE. THE PERCENTAGE THE AMOUNT OF TIME DEVOTED TO EACH TYPE IS OF THE AMOUNT OF TIME DEVOTED TO ALL TYPES

Types of Activities	Hours per Week Spent on Each Type	Percentage of the Total Time Spent on Each Type
Teaching (unweighted)	744.51	23.960
Preparation for Teaching	382.27	12.300
Professional Reading	229.09	7.373
Conferences	216.24	6.959
Grading Papers, Notebooks, etc.	196.00	6.308
Library Work	191.50	6.164
Supervision and Teaching	185.60	5.973
Research	114.07	3.671
Office Work	109.45	3.522
Student Organizations	95.23	3.065
General Supervision	78.96	2.541
Preparing Plays	75.88	2.442
Professional Correspondence	71.03	2.286
Committee Work	60.66	1.952
Public Addresses	46.89	1.509
Faculty Meetings	43.07	1.386
Extension Work Without Pay	33.08	1.065
Home Economics Cottage	24.80	.798
Catalogue Work	21.56	.694
Repairing Tools, etc.	21.12	.680
Physical Examinations	21.00	.676
Assembly Exercises	20.73	.667
Ordering Supplies	17.16	.552
Faculty Clubs	15.36	.494
Orchestra	14.55	.468
Program Making	13.45	.433
Pageants	12.85	.414
Preparing Scenery	9.16	.295
Judging Debates	9.00	.290
Gold Lettering	8.00	.257
Preceptress Work	5.00	.161
Coaching	4.91	.158
Sunday School Work	3.50	.113
Routine Work of Room	2.50	.080
Exhibits	2.30	.074
Prof'l Improvement in Painting	2.00	.064
Special Rehearsals	2.00	.064
Hall Duty	1.50	.048
Work on Costumes	1.20	.039
Total	3107.18	99.995
Average	50.937	

The interpretation of the data of Table V would be much enhanced if standards for the purpose were available. Standards of present practice could be obtained by averaging similar figures from fifty or more teachers colleges. Another method of obtaining standards would be to have administrative officers of a number of teachers colleges make an estimate of the percentage of time which they think should be devoted to each type of activity in an efficiently managed and well organized teachers college. In the absence of standards it may still be

profitable to compare the relative amount of time devoted to some of the most important types of activities.

Less than one-fourth, 23.96 per cent, of the total amount of time spent on all types of activities in our institution is devoted to teaching (unweighted). However, as the teachers of the elementary school were unable to separate their teaching from their supervision of student teaching, the teaching done in the elementary school is not included in the above percentage. Moreover, as the work of the librarians, who do comparatively little teaching, is included in the data of Table V, the percentage for teaching is for this reason lower than what it should be. If both the elementary school and the library divisions are excluded, the percentage for teaching will be raised from 23.96 to 32.16. In our institution then, about one-third of the time spent in all types of activities is devoted to teaching.

For the different divisions of the college, the percentage of time spent in teaching and preparation for teaching is given in the following tabulation:

	College Division	Elementary School	High School	Music Division	Library Division
Teaching (unweighted)	28.563	30.070*	39.623	52.490	2.380
Prep. for Teaching....	13.355	10.023	17.981	14.440	.863
Total.....	41.918	40.093	57.604	66.930	3.243

The library division spends over 82 per cent of its total time on library work, the type of work which is its main business. If we may venture to assume that the main business of the remaining divisions of the college is teaching and preparation for teaching, then, as may be seen from the above tabulation, only the music and the high school divisions devote more than one-half of the total time to their main business. The college and the elementary school divisions spend only about 40 per cent of the amount of time spent on all types of activities on teaching and preparation for teaching. The college, high school, and music divisions devote on the average about 46 per cent of the total time to their main business. It should be mentioned in this connection that the reports of three of the members of the faculty who spent most of their time on office work are not included in these tabulations.

The library work listed in Table V is all done by the library division. If this item is excluded from the tabulation, then the percentage of time devoted to preparation for teaching will be 13.22 instead of 12.30 as given in the table. This is only about two-fifths of the percentage of time spent in teaching. I do not know just what percentage of the total time-load or what proportion of the teaching load in a well organized and well managed teachers college the amount of

*Teaching and supervision of student teaching.

time devoted to preparation for teaching should be, but I estimate upon the basis of more or less comparable figures from the University of Washington that at least as much time should be spent in preparation for teaching as is devoted to the activity of teaching itself.

Professional reading ranks high in comparison with preparation for teaching, the difference being only about 6 per cent. The percentage of time spent in conferences is very high, but over one-half of this work is done in the elementary training school where it appears to be a necessity. In the other divisions of the college, excluding the library division, only from 4 to 5 per cent of the total time-load is spent in conferences. Exclusive of the elementary school and the library division, we spend about one-third as much time in conferences as we spend in preparation for teaching. The faculty devotes more time to conferences and almost as much time to student organizations as it does to research. Perhaps this is as it should be, but a faculty which spends only 3.67 per cent of its total time-load on reasearch cannot hope to add very much to educational progress or have its institution rank as a leader in educational matters. Only about 6 per cent of the total time-load is spent on library work (this includes all of the regular library activities done by the librarians). I think it is a very conservative estimate to state that at least 10 per cent of the total time-load should be devoted to this type of work to make it really efficient. As it is only the purpose of this article to give some examples of the value of having the teachers make a report of their total time-load, I shall not enter upon a more detailed discussion of the data of Table V.

A record of the total time-load for an extended period may be used also in deciding such moot points as whether one hour of instruction should be regarded as equal to every other hour regardless of the type of instruction. In our institution, as shown on the teacher's weekly schedule card, the teaching is weighted according to the type of instruction. Thus, laboratory, shop, and physical exercise courses are weighted two-thirds and studio courses three-fourths. According to this weighting, if a teacher taught only laboratory courses, he would be obliged to teach twenty-four hours per week for a normal sixteen hour per week teaching load. If this weighting is excessive, then the group of teachers who carry weighted courses should show a larger average on the total time-load than the group of teachers who do not carry such courses. An examination of the records of thirteen teachers who were carrying weighted courses showed that of their unweighted teaching load an average of 9.77 hours were weighted, and that their average total time-load was 48.44 hours per week. As the average total time-load for those who were not giving weighted courses was 49.55 hours, it does not appear that the teachers who were carrying weighted courses were overburdened by the weighting.

While the total time-load method is superior to the teaching load method in equalizing the teacher's load and in furnishing a basis for more effective supervision and control, it is, as has been pointed out,

a very imperfect method for obtaining accurate information on what we are most desirous of knowing—the individual's productiveness or service. But if it is a better method than the teaching load method, then it should replace the latter wholly, or at least in part. It is worth trying. If, after extended trial, it is found to be inferior to the teaching load method, it can easily be abandoned before much harm has been done, and with the added knowledge that it is inferior. Progress is not made by a continued repetition of the blunders of the past. It is attained only by making many trials and many failures with an occasional success.