Memorandum to Mr. Woodward
From Mr. Allin-Smith
$\begin{aligned} \text { Subject: } & \text { Extent and Cost of Teaching } \\ & \text { by Assistants in the several } \\ & \text { Departments. }\end{aligned}$
Incidental to our analyses of departmental records and of unit teaching costs for the portfolios, considerable variation is seen in the cost and extent of teaching by Assistants, the rank under that of Instructor, between the Arts, Literature and Science departments. The following facts grow out of a special study of courses for which Assistants and some Fellows were specifically responsible during the Autumn, Winter and Spring quarters just concluded. In some of the medical departments, snd probably in other departments also, assistants were employed merely to "assist" a higher rank instructor in a course, but in such cases the present records do not show the facts (although they should) and assistance of this sort is not considered here.

Percentage of Registration Taught by Assistants: In the three quarters combined, the extent of assistant teaching ranged from the highest, $27.33 \%$ in Physics to $1.65 \%$ in Latin. This is the percentage of the total student registration in the department which was taught in classes for which assistants were responsible. The range of attendance shows the majority of students in these classes to be juniors; but there is also a substantial total of senior registration, together with a scettered graduate attendan oe. A number of important departments are above $20 \%$ in this respect, Physics, Astronomy, English, Sociology, Political Economy, and Mathematics (as the following table shows): and as some of them are distinctly graduate departments, I raise the question whether this is a proper proportion to be taught by low-rank instructors.

| Physics | 27.33\% | Germenics | 13.47\% |
| :---: | :---: | :---: | :---: |
| Astronomy | 26.93 | Geolocy |  |
| English | 24.43 | Philosophy | 9.32 |
| Sociology | 22.90 | History | 8.17 |
| Political Beonamy | 22.52 | Political Science | 7.85 |
| Mathematics | 21.22 | Romance |  |
| Botany (in part) | 15.49 | Psy chology | 2.56 |
| Geography | 15.03 | C. and A. (largely in Pol. Econ.) | 2.52 |
|  |  | Iatin | 1.65 |

Costs per Course: The following tabulation shows the wide range between departments in the amounts paid to assistants for teaching. The difference between \$100. in Philosophy and \$533.33 in Political Economy or $\$ 566.66$ in C. and A. is so considerable as to raise the question whether there can be any equivalent difference either in the quality or the value of assistant instruction in one department as compared with another, end whether

there should be more uniformity in the university's payments for such instruction.

Number of
Department Assistant
Courses


Cost per Course
$\$ 100$. 200.
\$533.33-\$250.00 200. 250.
2.00.00-126.66 200. 200. 175.
326.66-170.00
250.00-126.66 200. 250. 116.66
240.00-200.00
210.00-150.00
566.66-300.00

Our analyses of unit costs of instruction per student-major for several recent quarters make it perfectly clear that the relatively low cost of instruction by instructors and under ranks, together with large registrations, are two factors in giving low unit costs to undergraduate instruction in Arts, Literature and Science departments (in 1924-25, senior $\$ 17.52$, junior $\$ 12.80$ per student-major throughout the University). These figures should be contrasted with the amount the undergraduate pays for a major (\$25. and now \$30.) on the one hand, and on the other with the much higher cost of instructing the graduate students ( $\$ 43.60$ in 1924-25) who pay only $\$ 20$. per major when they do not have their tuition remitted.


From Mr. Allin-Smith
Subject: The Survey.

With the chance that we shall not have a conference with Mr. Mason before my vacation begins tomorrow, I am putting in writing several points for consideration. Of course I shall be ready to come back to Chicago at any time before August first to consider the question of continuing a survey with you, for it has a direct bearing on how I am to spend my energies in the next year or two. If a survey is to continue, I feel that it ought to move with speed and with some purpose. This it has not done in the two years I have held myself ready to work upon it. My memorandum to Mr. Arnett dated April 20th covered all the propositions about the continuation of the survey that I now wish to have before the President in the following brief points:

1. It ought to have first an official introduction to the faculty, so that the investigations which it undertakes shall proceed openly, directly, and (it may be hoped) with the fullest recognition and cooperation of all in the University community.
2. The survey staff should be attached to some administrative office, preferably perhaps the President's.
3. A specific plan shquld be prepared, with the consent and suggestion of those persons among the Deans, the Faculty, and particularly the School of Education who are qualified to speak on the scope of a survey. A survey committee of two or three progressive and alert men might be appointed to exer cise a general supervisory and interpretative purpose.
4. When an egreed plan is determined, it would be well to pursue the studieson a lerge scale with a considerable staff, and get them done quickly, rather than to continue the piecemeal methods of our interrupted investigations so far.
5. Some publicity should be given to findings from time to time.
6. More specific problems should be put before the survey staff, such as, for instan $\propto$, the space utilization question lately reported upon.
7. Some permenent quarters for the staff will become imperative.

Along with this memorandum I submit portfolios of records of the Philosophy, Psychology and Political Economy departments, together with that on Mathematics which you had with a memorandum on May 19 th .
Aside from some smaller studies on space, teaching by assistants, and student-clock-hours of teaching weekly, these portyolios are the extent of our accomplishment up to July first.

Memorandum to President Jason and Vice-Preal dent Woodward From \#r. Al2in-Emt th

Subject: Utilisation of Classroom Space.

The question of use of University rome was recently raised, and am no record of caviler atudien could be diecovered, I undertools to make an anelysis of classroom utilisation luring the present (Spring) quarter, for a total of 47 rooms in Cobb, Harper, 01aseses, Commerce, Law, and lexington, used for the most part by Arts and Literature departments and assigned through the Recorder's office. Of these 47 rooms, 26 are $4 n$ Cob, ? in classics, 6 each In Harper and Compere, and one each in law and Lexington. In the summary of the study which follows, the buildings are considered Be unite, although records in detail are available for each room In each building.
$x$ have sought to sower those questions:
(1) In how many available hours are the rooms used? (xoom-hours)
(2) What proportion of the seating capacity is occupied? (etucent-hours)
(3) What proportions of morning ant of efterneon hours are utilized, and what proportion of capped ty in each case?
Calculations have been put on a weekly basis throughout, for unifomaty. I have assumed that eight hours daily, from 8 abm. to $4: 30 \mathrm{p} \cdot \mathrm{zze}$, axe regularly available for the use of each room, on five days, Monday to Friday, excluding a considerati on of Saturday house, thus giving 40 hours of pas sidle use weekly.
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Such few special classea as meet at $4: 30$ p.in. or later are counted, however, aa afternoon classes within the eight hours. Diatinotion has been made in the aol culations for Junior college olaspes meeting rive hours weekly, Senior college and Graduate olasees neeting four houre weekly, and some few classes whioh meet for conference only two hours weekay.

The sumary table attaohed gives the complete f tgures by buildinge and in total, sbout which I make brief etatenents here. On a weekly basis, then, for the gresent quarter, the figures ahow for the builainge and 47 roome studieds
(1) That the weekly use of total avaliable hours ( 40 houre eaoh for 47 rooms, or 1830 room houre) is 1070 , or $57.34 \%$. In Cobb Hall, however, the houriy utiliaation was 58.948 , Harper $59.50 \%$, classics $50.00 \%$, Commerce $60.00 \%$, one room each in Law and Lexington 57.50 , and $37.50 \%$ respeatively.
(2) That the poportion of seating aapacity osoupied in the rooms, on a weelcy basia is 27.51 (or a seating oapacity in 47 rooms totaling 2363 studente, mitiplied by 40 available hours week $1 y$, equaling a total enpaci ty week $2 y$ of 9420 otudent-hours.) In Coib Hall alone the student-hour utilisation is 20.025 , in Harper $30.25 \%$, Olaseios $21.64 \%$, Commerce $26.17 \%$, one room in Lasw $36.63 \%$, and one room in lexington $22.50 \%$.

If the uee of Covb Hall, for comparison, is token to be a guide to dealrable occupanoy, then Harper is somewhet oxowded, while Comerce and espeolally claosios are under-occupied. In chaseles the cause of this 20 w average is relatively analier and fewer clasees genexally.
(3) That morning utiaisation is muoh more complete in all








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buildinge studied, both as to houre and as to eapacity, than aftemoon utilization. Comsitering 20 moming and 20 afternoon houre weekly ( 4 each dey in 5 days), the morning occupanoy in these buildinge is $73.6 \%$ of the available moming woom-houws, and 41.0\% of the available roor-hours in the afternoon. Fox Cobb Hall the figures are $74.0 \%$ and $43.3 \%$, for Haryex $72.5 \%$ and $46.6 \%$, for 01emstes $73.6 \%$ and $26.4 \%$, for Commerce $78.3 \%$ and $41.6 \%$, morning and arternocn weapeatlvely.

As to enpeatty utilization morning and afternoon, in student hours weekly, the total foz 47 rooms showe mornine oceupancy to be $42.40 \%$ and aftarnoon $12.62 \%$ of Gapaesty. In the various buildinge, Cobb Hall percentagee are $42.73 \%$ mominge and 13.26 g afternoons
 and 14.06\%. It thoula be notod that the wee of tixyer 貫-11 (Jecture Room) fos leoture purposes averages about two houre weolcly; but onjy tho ciaccroom use of that room in figurod into thewe parcenteges.

The detadis of the analysia appeas in the condensed tables aocomponying thie etetement, and the onalysie of each woom is available in the working sheets if. it is desdrod.

It in interesting to sid the following averages row this comparisens That the awerege sayuetty of the 47 alassroons heve studied is 54, ari that the average size of elasees in than in the Spring quartox is lews than halx the capad ty or 23.7 (251 dasees सith m totez attentence of 5950 stualente).

A speaial compratation for the nine clasaroome on the fourth floor of Cobb Hall is also intereating. They have a total oagaelty of 409 etudats, of the weekly room-hours avediable 19 roome at 40 houre a week, of 360 ), they weze used $40 \%$ of the time, as com-




























pared whin $58.94 \%$ in Covb Hall as a whole, and $57.34 \%$ in the 47 roors studied. In seating capad ty weelay, 3000 out of 16320 student-hours were utilized, or $10.4 \%$, as conpered with $26.02 \%$ in Cobb Hall as a whole, and $27.51 \%$ in the 47 rooms atudied. In the morning hours thay were ocoupied $63.3 \%$ of the time, in the afternoon $15.5 \%$ of avallable time, as compared with $74.0 \%$ and $43.8 \%$ for Cobb as a whole, and $73.6 \%$ and $40.5 \%$ of hours, morning and afternoon respectively, for the 47 room studied. Undoubtedxy these roome, of good sizo, averaging 45 seato each, are handicapped by theig height above ground and find inadequate use for thet reacon partscularly, eopecialiy in the spring quarter. None of thom is occupled at the 8-9 hour, none after $2: 30$, exoept one olaes for one hour dally at $2: 30$ this quarter.

In considering the percentegen of use here revealed, the faot that a Spring quaster has been stualed indicatee that the uee of roons, sofar as student registration ie a factor, ie probebly at Ita lowent quarterly figure for the acadenio yoas, if thie Spring quartor may be taken as typicaly and therefore the figures represent the ilghtest guarteriy cemands made on claseroom space in the year. Secondly, the faet that Arte and IAterature alassroom use has been stualed may be taken ae representative of Arto and Literature in general, but cannot be taken as an indication of percentage use of laboratory space in soientific builaings or of other claessom syace in the zrorescional ahoola. Jut the atudy of such impor tent buildinge as Cobb, Harper, Cleselios and Coxanerce covers a group of the most uaed elaserooms for a large share of the quarterky University registration, and thus applies to sone of the most sienificant spece on the quadrangles.











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Dunurary Unlese this Spxing quarter cannot be interpxeted as typteel of syning querter Ante and riterature eleesee; this syeee utilization study Indicates 1ittie better than haif use of houriy time weekiy, and 11 ttie better then cuarter nee of aspacity week $1 y$, with a reaily inalecumte use of afternoon houxs rnd epaee goneraliy. Any question of arowding then ought rendily to find some remedy in mare careful absignuent of roome by eize, or bottox appliantion of nfterncon houre, It is elear, too, that $f a$ the symine puarter the average aise of elasaroom is more than twiee the average need of sasting gyace per slase.





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| Claserooms |  | Toter <br> Hourly <br> Cayneaty | \#eekly Use of Available Room-llours |  | $\begin{gathered} \text { Percentage } \\ \text { of } \\ \text { Hourly } \\ \text { Use } \end{gathered}$ |  | 2y Use anable t-Hours | Percontage of student Cepacity Uees |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cobb Hall | 26 rooms | 1314 | 613 | or 3040 | 58.9 | 14726 | or 52560 | 28.0 |
| Haxper | 6 * | 372 | 143 | 240 | 59.6 | 4501 | - 14830 | 30.3 |
| Classion | 7 | 286 | 140 | - 280 | 50. | 2476 | * 11440 | 21.6 |
| Cormerce | 6 " | 292 | 144 | - 240 | 60. | 3057 | * 11680 | 26.2 |
| Law, Weet | 1. noom | 64 | 23 | - 40 | 57.5 | 939 | - 2560 | 36.7 |
| Lexington | 1 | 40 | 15 | - 40 | 37.5 | 360 | * 1600 | 22.5 |
| Totale | 47 xoons | 2368 | 1078 | - 1830 | 57.3 | 26059 | - 94720 | 27.5 |



| Classroome |  | Room-Hour Use |  |  |  |  | Student-Hour Use |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Available } \\ & \text { Hours } \end{aligned}$ | Used A. 11. | \$ | Uned P. 31. | 8 | $\begin{gathered} \text { Available } \\ \text { Houre } \end{gathered}$ | Usea <br> A. 㿥。 | $\%$ | Ured <br> P.II. | \% |
| Coble $x$ all | 26 reoms | 520 | 385 | 74.0 | 220 | 43.8 | 26280 | 11243 | 42.3 | 3483 | 13.3 |
| Haxper | 6 | 120 | 87 | 72.5 | 56 | 46.6 | 7440 | 3687 | 49.5 | 814 | 10.9 |
| Claseios | 7 | 140 | 103 | 73.6 | 37 | 26.4 | 5720 | 1984 | 34.7 | 492 | 8.6 |
| Commexce | 6 | 120 | 94 | 78.3 | 50 | 41.6 | 5840 | 2235 | 30.3 | 322 | 14.1 |
| Law, visat | 1 roont | 20 | 18 | 90.0 | 5 | 25.0 | 1280 | 803 | 62.7 | 136 | 10.6 |
| Lexington | 1 | 20 | 5 | 25.0 | 10 | 50.0 | 800 | 135 | 16.9 | 225 | 28. |
| Totals | 47 xoms | 920 | 692 | 73.6 | 386 | 41.0 | 47360 | 20087 | 42.4 | 5972 | 12.6 |

\# Available each moming and afternoon, weekiy.


| zopeye | 43 | 360 | วง0 | eas | $33^{*} \mathrm{e}$ | 389 | 13*0 | 43380 | \$009s | 走"を | 323s | 4t*e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 4s | Se | 3 | -s2-a | 40 | -30*0 | 000 | 132 | $4 \times$ | ses | 50-1 |
|  | $\pm$ | 6eoss | 50 | 18 | $20^{\circ} 0$ | 2 | $52 * 0$ | t5as | 803 | es's | 130 | $40^{\circ} \mathrm{C}$ |
| Qovaremoe | e | * | 450 | dv | $38 * 3$ | 20 | +18e | ริง | \$539 | $30 \cdot 3$ | 955 | $41^{-3}$ |
| nyemeyas | 3 | \% | 100 | 303 | $33^{*}$ e | 33 | [se* ${ }^{\text {d }}$ | 2sso | 4384 | 34"3 | tas | $*^{*} \mathrm{e}$ |
| ysxbes | e | 18 | 250 | 83 | 35*2 | se | te*e | Sven | 3ess | +3*3 | 314 | $10^{*} 2$ |
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| CJE |  |  |  |  |  | $\begin{aligned} & \left.5^{*}\right]^{*} \\ & \mathrm{an}^{*} \end{aligned}$ | 5 |  |  | - 2 ¢\% |  | \% |





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June 2. 1926.
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## My dear Mr. Payne:

gnolosed you will find a copy of an analysis of classroom utilization rooentiy made by Mr. Allin-5mith. I should be very glad to have you study the analysis and make whatever comments you wish. This is the only copy I have, and I must therefore ask you to return it to mo.

Yours sincerely.

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Prederic C. Woodward (signed)
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Mr. Walter A. Payne.
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Henorandum to President Mason and Vice-Presd dent Woodward From Mrr, Al2An-5mith

Subjeets Utilization of Classyoom Space.

The question of use of University rooms was recently raised, and at no recort of emmiter mtudiet could be diecovered, I under took to make an anelysis of elassroom utiligation during the present (spring) quartor, for a total of 47 rooms in Cobb, Ftrper, claselos, Commerce, Law, and Lexington, used for the most part by Arts and 2itterature depertments and asefgned through the Reoordests office. Of these 47 rooms, 26 are $\operatorname{in}$ Cobb, 7 in classics, 6 each In thaper and Commerce, and one ench in Iaw and Iexington. In the sumary of the atudy whioh follows, the buildings are considered as units, although recorte in detail are avallable for esoh room in each building.

I have soucht to anower these queations:
(1) In how many available houss are the rooms used? (room-hours)
(2) What proportion of the eeating capacity is oocupied? (student-hours)
(3) What proportions of morning and of eftemmeon hours are utilized, and what proportion of capad. ty in esch osee?

Galculatione have been put on a weekly basis throughout, for unifomity. I have assumed that eigh houre daily, from a a.m. to $4: 30 \mathrm{p} . \mathrm{m}_{\mathrm{o}}$, are regularly available for the use of each room, on five days, Monday to Friday, exaluding a consideration of Saturday hours, thue giving 40 hours of. pas sible use weekly.












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Such few gecial classen as meet at 4:30 p.in. or later are counted, however, as afternoon classeswithin the eight hours. Distinction has been made in the celeulations for Junior college olasses meeting Sive hours weekly, Senior college and Graduate .classes meeting fous hours veek $2 y$, and some few olasses whioh meet for conference only two hours weekly.

The sumnary table attaohed gives the complete figures by buildings and in total, about whioh I make brief statemente here. On a weekly besis, then, for the gresent quarter, the figures show for the buildinge and 47 rooms studieds
(1) That the weekly use of total avalable hours ( 40 houre each for 47 rooms, or 1880 room hours) is 107 s , or $57.34 \%$. In Cobb Hall, however, the hourly utilization was $58.94 \%$, Harper $59.53 \%$, Classics $50.00 \%$, Commerce $60.00 \%$, one room ea.oh in Law and lexington $57.50 \%$ and $37.50 \%$ respectively.
(2) That the proportion of seating capacity occupied in the rooms, on a weekly basis is $27.51 \%$ (of a seating capacity in 47 rooms totaling 2368 studente, multiplied by 40 available hours weekly, equaling a total capacity week2y of 94270 otudent-hours.) In Cobb Hall alone the student-hour utilization is $28.02 \%$, in Harper $30.25 \%$, Olassics $21.64 \%$, Comeree $26.17 \%$, one room in Law $36.68 \%$, and one room in Lexington 22.50\%.

If the use of Colb Hall, for comparison, is taken to be a cuide to desirable occupancy, then Harper is somewhet crowded, while Commerce and especially classios are under-ocoupied. In claseice the cause of this low average is relatively mealler and fewer classes generally.
(3) That morning utilization is muoh nore complete in all




















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buildinge studied, both as to hours and es to apaeity, than mftemoon utilization. Constetering 20 moming and 20 afternoon houre weekly ( 4 each dey in 5 days), the moming ocoupenoy in these buildinge in 73.6\% of the available moming room-hourg, and
 the figures are $74.0 \%$ and $43.3 \%$, for Haxper $72.5 \%$ and $46.6 \%$, for Classica $73.6 \%$ and $26.4 \%$, for Commerce $78.3 \%$ and $41.6 \%$, morning and afternoon reepeetively.

As to eapacity utilization morning and afternoon, in student hours week $2 y$, the totel for 47 roome ehows mening ceoupaney to be $42.40 \%$ and afternoon $12.62 \%$ of eapoeity. In the various builainge, Cobb Hall percentages are $42.73 \%$ mominge and $13.26 \%$ afternoonas Harper $49.56 \%$ and $10.94 \%$ oreseiee $34.68 \%$ and $8.60 \%$ Commerce $38.20 \%$ and $14.06 \%$. It should be noted that the use of Haxper Mill 11 (tecture Room) for lecture purpcses averages about two hours weekiy, but only the clasercom use of that room is figured into these peroentages:

The detaile of the analysis apyess in the condensed tables acoompanying this statement, and the analyals of each room is available in the working sheets if it is deaired.

It is interesting to add the following averages for this comparisons That the average capacity of the 47 alasarooms here studied is 54, ant thet the average sise of elasses in them in the Spring quartex is leas than half the aapad ty or 23.7 (251 olasees चith a total attendance of 5950 students).

A speaial computation for the nine classroome on the fourth floos of Cobb Hall is also interesting. They have a total ampedty of 408 stut inte. of the weekly reom-hours available (9 rooms at 40 hours a week, or 360 ), they were used $40 \%$ of the time, as com-






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paris with $53.94 \%$ in Cobb Hall as a whole, and $57.34 \%$ in the 47 roonsatudied. In seating capael ty weekly, 3008 out of 16320 student-hours were utilized, or $10.4 \%$, as compared with $28.02 \%$ in Cobb Hall as a whole, and $27.51 \%$ in the 47 rooms atudied. In the morning hours they were oocopied $63.3 \%$ of the time, in the afternoon $15.5 \%$ of available time, as compared with $74.0 \%$ and $43.8 \%$ for Cobb as a whole, and $73.6 \%$ and $40.5 \%$ of hours, morning and afternoon respectively, for the 47 rooms studied. Undoubtediy these roome, of good size, averaging 45 seats ench, are handicapped by their height above ground and find inadequate use for that reason partscularly, eapecially in the spring quarter. Wone of them is occupied at the 8-9 hour, none after 2:30, except one olase for one hour daily at $2: 30$ this quarter.

In considering the percentages of use here revealed, the faot that a Spring quaster has been studied indieates that the use of rooms, bo far as student registration ie a factor, i.e probably at its lowest quarteriy figure for the acadenic year, if this Spring quarter may be taken as typical; and therefore the figures represent the lightest quarterly demands made on dassroom space in the year. Seoondly, the fact that Arts and literature classroom use has been studied may be taken as representative of Arts and Litexature in general, but cannot be taken as an indication of percentage use of laboratory space in seientific builaings or of other classroom space in the professional sohools. But the atudy of such impartant bulldings as Cobb, Harper, Claseios and Comerce sovers a group of the most used classrooms for a large share of the quarterly University registration, and thus applies to some of the most eignificant spece on the quadrag gles.











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JUמHARY: Unless this Spring quarter cannot be interpreted as typieal of spring cuarter Arts and ziterature elasees, thate sprice utilization study indicates littie better than half use of hourly. time weekly, and $11 t t \mathrm{l}$ better than quarter use of oapacity weekly, with a really inadeçuate use of afternoon hours and space genemally. Any question of exowding then ought readily to find some remedy in mare dareful assignment of rooms by size, or better application of aftemoon houre, It is elear, too, that $\mathcal{E}$ er the Spring guarter the average aize of classroom is more than twice the average need of sesting घ2ace per clam.








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| Classrooms |  | Totel <br> Hourly <br> Capacity | ```Weekly Use of Available Room-Hours``` |  | Percentage of Hourly Use | Weekly Use of Available Capacity in Student-Hours |  | Percentaǵe of student Capactsy Usee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cobb Hall | 26 rooms | 1314 | 613 | of 1040 | 58.9 | 14726 | of 52560 | 28.0 |
| Herper | 6 | 372 | 143 | - 240 | 59.6 | 4501 | - 14880 | 30.3 |
| classice | 7 | 286 | 140 | * 280 | 50. | 2476 | * 11440 | 21.6 |
| Commerce | 6 | 292 | 144 | * 240 | 60. | 3057 | - 11680 | 26.2 |
| Yaw, West | 2 room | 64 | 23 | - 40 | 57.5 | 939 | - 2560 | 36.7 |
| Lexington | 1 | 40 | 15 | * 40 | 37.5 | 360 | a 1600 | 22.5 |
| Totale | 47 P00ms | 2368 | 1078 | - 1880 | 57.3 | 26059 | - 94720 | 27.5 |



| Classrooms |  | Room-llour Use |  |  |  |  | Student-Hour Uxe |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Available } \\ \text { Hours } \end{gathered}$ | Used A. 15 | \% | Used R.III. | \% | $\begin{gathered} \text { * Ave ilable } \\ \text { Hours } \end{gathered}$ | Used A. 1 普。 | \% | Used F. | 8 |
| Cobb Hall | 26 rooms | 520 | 385 | 74.0 | 228 | 43.8 | 26280 | 11243 | 42.8 | 3483 | 13.3 |
| Harper | 6 * | 120 | 37 | 72.5 | 56 | 46.6 | 7440 | 3687 | 49.5 | 814 | 10.9 |
| Classica | 7 * | 140 | 103 | 73.6 | 37 | 26.4 | 5720 | 1984 | 34.7 | 492 | 3.6 |
| Commerce | 6 | 120 | 94 | 78.3 | 50 | 41.6 | 5340 | 2235 | 33.3 | 322 | 14.1 |
| Iam, Hinst | 1 Troum | 20 | 18 | 90.0 | 5 | 25.0 | 1290 | 803 | 62.7 | 136 | 10.6 |
| Lexington | 1 a | 20 | 5 | 25.0 | 10 | 50.0 | 800 | 135 | 16.9 | 225 | 28.1 |
| Totals | 47 rooms | 920 | 692 | 73.6 | 386 | 41.0 | 47360 | 20087 | 42.4 | 5972 | 12.6 |

\% Available each mozning and afternoon, weekly.



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# The University of Chicago 

(1)tfice of the Recorder and Examiner

June 18, 1926.

Dean F. C. Woodward, Harper Memorial Library.

## My dear Dean Woodward:

I return herewith, as per your request, the report of Mr. Allin-Smith on "Utilization of Classroom Space". I have no doubt of the accuracy of the report, except on one or two points which do not affect the principle at issue. The thing which is not commented on is that our space is used to the limit at nine and ten oiclock and almost to the limit at eleven oiclock, - in other words that our peak load taxes our capacity. The problem, as I see it, is the more even distribution of our total load throughout the available hours of the day. Most of our students would, if they could, elect all three of their courses at nine, ten and eleven and the preference of a large number of our departments is apparently in harmony with the preference of our students.

This question of a more even distribution of our load throughout the day has often been made the subject of discussion and to a certain extent of administrative action. By action of the General Administrative Board (April 17, 1920) the following recommendation was adopted:

1- That it is necessary to schedule in the afternoon hours (a) in the case of Junior College work and (b) in the case of Senior College work not less than $40 \%$ nor more than $60 \%$ of the sections offered by each department.

Not all of the departments act in harmony with this request, but even so, it would not totally solve our problem. Personally, I should be glad to see a larger amount of pressure brought to bear upon departments; belleving that the students would accomodate themselves to the programs announced by the University.


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## The University of Cbicago

 Tbe Ogben Graduate $\mathfrak{m c b o o l}$ of $\mathfrak{m c i e n c e}$I am interested in the report of Mr. Allin-Smith on the "Utilization of Classroom Space". It seems to me almost inexcueable that the University should spend money to demonstrate that there is plenty of space in the Spring Quarter. We all know that congestion is at a minimum at that time of the year; and we also know that practically all of the rooms considered are vacant at the 12:30 hour. In fact, only six of these rooms are used at 12:30 during the Autumn Quarter, our most congested period. There was, I believe, one room vacant through a combination of misunderstanding between Mr. Payne and myself as to the availability of this room for office space- the unexpected discontinuation of one course and through the transfer to one of the outlying laboratories of courses which should naturally have been in Cobb Hall. If studies of this sort are to be made, it would be very much more valuable to us to have them made during the Autumn Quarter which is the most congested period rather than for the Spring Quarter which is the least congested period.

I happen to know that in the preceding Autumn Quarter there was not a single room available of the forty-seven considered at $9: 00$


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#### Abstract

                  


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Mr. W. E. Scott #R
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or $10: 00$ and only two at $11: 00$. The studies with reference to the size of classes and the seating capacities of the rooms seem to me a complete waste of time. It is inevitable that we should have some small classes, and it would not be practicable to supply small rooms for all of the small classes. It certainly would be an unwise educational policy to offer only courses which would fill the available classrooms.

I cannot help feeling that it gives an absolutely false imppression of our needs to take seriously a report which appears on the surface to indicate that we are only using three-fourths of our available classroom space.

Very truly yours,


HGG:M
Henry G. Gale Dean.
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Memorandum to President Mason and Mr. Woodward
From Mr. Allin-Smith
Subject: Sample Portfolio of Departmental Records.

In connection with the General Bducation Board survey, I submit for inspe ction and criticism a collection of significant departmental records which we have called a portfolio. It is arranged for cumulative entry up to 1930 and standardized in forms so that portfolios in similar style may be prepared for each or any separate University department.

I should like this sample, which covers the records of the Department of Mathematics, to have your consideration, especially with reference to its continued utility to the administrative officers of the University. For such a broad purpose, the portfolio should be characterized by Clearness, Completeness of Essential Details, Fase of Cumulative Bntry, Expansibility. Viewed with such characteristics in mind, it may appear that other records should be added or substituted; that slightly different form or arrangement should be given to the details shown; that emphasis ought to be placed on particular features. In any case, the scheme allows readily for cumulation of data quarter by quarter, and for the addition at any time of other special features of departmental activities that may come to have the greatest reference value. Keeping these studies up to date will not be more than a clerical effort of a few days quarterly, which need not constitute a burden of office routine.

PURPOSI: The intention of the portfolio is to separate from general University records and to arrange the distinctiy departmental records which may be useful in administrative control. Many major considerations of plan or policy in administration relate themselves directiy to the scope or operation of a given University department, apart from their incidental relationship to the University organization as a whole. In those matters the departmental records should be accessible, as such. Quantities of statistical information about the growth of Uni versity activities exist in varied form and scattered location. So far as I am able to discover, however, there never has been a sustained attempt to construct from the several sour ces a systematic record of activities in separate departments and from the departmental point of view.

For much of the portfolio it has seemed unwise to accumulate details prior to the year 1922-23, the last of Doctor Judson's administration, both because it would take considerable time and because experience of earlier years probably has little bearing on the situation in which University administration now finds itself.

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ARRANGFMENT: The portfolio has two parts,
I. Departmental Records, containing statistics and charts concerning degrees, registration, teaching ranks, courses given, and instruction costs; and
II. Staff Records, containing statements of training, promotion, salary, activities in and out of the University, research and publications, for each present member of the departmental teaching staff.

The table of contents shows the order of these items. A brief discussion of each section follows:
I. The departmental statistics will contain, if continued, a cumulative record of the trend for several years. As a means of administrative control much of the information leads finally to a consideration of the budget and of costs of instruction. As the tabular statistics explain themselves fairly well, attention is given here primarily to the item of costs. These fiscal records appear in Section $I$ on pages 7-9. So far, cost studies have been completed for ony one year, 1924-25. To this will be added unit costs for 1922-23 and for the current year 1925-26 as each department is analyzed. The value of these records grows as they accumulate for quarterly comparison, so that they should continue for some future periods to establish reliable norms or ratios. Moreover, the greatest value will attach to comparis on of one department or group of departments with others, and of single departments with the University as a whole, when complete studies are available.

In brief explanation of Mathematics costs as they appear in Table I-8 and Chart I-9, I should like to point out one or two possibilities of administrative utility. For Mathematics the quarterly relationship is set up clearly as between the unit costs per student-major of teaching graduate, senior, junior and other groups, comparing them as well with the average costs in the whole department and in the entire intra-mural University during 1924-25.

In the chart, the groups of vertical ribbons represent the dollar costs during separate quarters of the years noted, comparing average cost of instruction quarterly in each group. The yearly average is shown by short horizontal lines in identifying color cutting across the four quarters in each year. The 1924-25 yearly a verage for the entire University appears in a horizontal green line cutting across each classification group.

It will be seen that Graduate costs per student-major increased between 1922-23 and 1924-25, but quarterly in 1925-26 up to the Spring quarter they appear to be lower than in either earlier year. In contrast, Senior and Junior average costs show considerable declines since 1922-23. Table I-4 will show

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that graduate registration has increased substantially while other classes of students have had a declining tendency in several quarters. If the grade of instruction measured in total dollar costs has remained relatively the same, graduate costs would have declined by reason of greater attendance, and senior or junior costs either increased or remained stationary. The actual tendency of average costs has been the reverse, how ever; and from these facts, even considering staff salary increases between those years (Table I-7), it would seem that the Mathematics Department has tended to give a better "dollar" grade of instruction to graduates at the expense of undergraduate instruction.

Whether this is justifiable in the circumstances or should contime, is but one of the considerations of administrative policy which departmental portfolios should reveal.

Looking at the total Mathematics registration on the chart, with these costs tendencies in mind, the weight of preponderant graduate registration has carried the average cost up between 1922-23 and 1924-25; in contrast, however, with lower levels each quarter so far in 1925-26.

As compared with University average costs (horizontal green line) for 1924-25, the Mathematics yearly averages (short horizontal colored lines for each year) show somewhat better dollar grades of instruction throughout. All these instruction cost figures find their best ready comparison with the amounts which students paid for each major, graduates $\$ 20.00$ and undergraduates $\$ 20.00$ to $\$ 25.00$ quarterly.

In concluding this brief statement concerning Section $I$, attention is called to the summary page I-l0 inserted for the addition of comments or notes from time to time that will serve to give a better interpretation of the cumulative records.
II. Within the section on Staff it is intended to include all those items of personal record which will come to serve as a convenient and reliable grading of academic standing for each faculty member, whether for purposes of salary, promotion, or any general question of effectiveness.

Page 3 in each individual record shows the courses given and registration from the Summer quarter 1922 to date. It will be an indication of the classification of courses taught, the size of classes, the extent of quarterly teaching above or below two majors, the quarters out of residence, among other things. The item of costs appears here again, also in the form of an average per studentmajor, for each course given. This record, if maintained, will have a considerable bearing on the question of continuing the consistently high-cost courses within each department, or on the parts of particular instructors.

All these and other matters may well be discussed in your determination of the utility of a portfolio record for each






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department. It is my understanding that the analysis of costs, such as was done for 1924-25 a year ago, falls within the purpose of the General Education Board contribution. The giving effect to University administrative controls which those cost studies show to be necessary, however, requires the broader understanding of departmental development which the portfolio of records is designed to provide. The cost studies could proceed separately, or the accumulation of records other than costs could proceed. But they have a joint utility. I raise the question then as to the next step. I should be pleased to consider this with you, or others at your direction.



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# Che University of Chicago 

CHICAGO, ILLINOIS

(1)ffice of tbe Dresident

3 May 1926.
Memorandum to Mr. Woodward
From Mr. Allin-Smith

In the light of our discussions about the survey during the past week, I have designed a series of far ms for departmental records after investigation of information to be had, and now recommend the following program on which a survey might progress immediately:
(1) To analyze departmental records and tabulate the facts on prepared forms, standardized for all departments, along the lines of the suggested folder prepared for the Department of Mathematics; and
(2) Simultaneously, to compute further departmental unit costs of instruction for the years 1922-1923 (on which the preparatory working sheets were earlier set up) and 1925-1926, the present academic year. These unit-cas $t$ records, when used along with the costs already determined by last summer's study of 1924-1925, will then comprise a reliable and useful basis of judgment for departmental expansion as quarters pass. The record forms provide for the inclusion of quarterly details of departmental costs in thase years and on to 1929-1930.

The foregoing program is desi gned with a long view to cumulative records for the President's office over several future years, but at the same time adapts itself to some useful accomplishment in the next few months. If this survey work is to move definitely toward completion, however, the following needs are pressing:

STAFF -- One capable statistical or clerical helper; one stenographer. Later part time studentservice by one or more seniors or graduates from the departments of Education or Commerce could further the background record-making, increasing their knowledge of administrative problems at the same time that it supplies service at small cost.

SPACE -- A good-sized office, light, to accomodate three desks, a large table, and other equipment, at a location preferably accessible to the offices of the Auditor, Recorder and President.

EQUIPMENT -- The furniture above-mentioned, an electrical calculating machine (which(could be rented), access to a mimeograph, mimeoscope, ading machine, etc.

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## The University of Chicago

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My dear Mr. Woodward:
Following my conference with you, Mr. Plimpton and Mr. Moulds yesterday, in pursuance to the conclusion which we reached, I discussed with Mr. AllinSmith the question of his continuing the work on statistical matters relating to the survey and allied subjects. He informed me that he was willing to continue up to July I, with the understanding that about that time the University would give him a definite answer as to whether he was to continue on a permanent basis, or whether the relationship should terminate. If the University should desire him to continue on a permanent basis, he would expect to have his standing recognized as an expert and his salary on the basis of $\$ 5,000$ from July 1 .

There is no doubt in my mind that the University is greatly in need of services such as Mr. Allin-Smith can render; and it must look forward to having a staff of statisticians and fact finders who will be able to furnish the President and his administrative colleagues with such information.

Inasmuch as I shall not be at the University on July I, I am writing this letter to you so that you may fully understand the situation and take such action with regard to it as is appropriate.

I am sending a copy of this letter to $M r$. Allin-Smith, so that he will know just what the present arrangement is.

Very truly yours,


Mr. Frederic C. Woodward The University of Chicago

TA:EVB
Copy to Mr. Allin-Smith

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My dear Mr. Arnett:
    The recelpt of your letter of April 23,
In whioh you set down the terms of your under-
gtanding with Mr. Al11m-Smith, Is acknowlodged.
The gresment with Mr. Allin-Smith soems to
me a very satisiactory one and I am writing
merely for the purpose of making your record
complete.
                                    Yours sincerely.
                                    ($tgned) Frederic C. Woodward
                                    V1ce-President
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Mr. Trevor Arnett
City Office
FCW* L

Communieation presented to the Board of Trustees on March 12 , 1925:

Reference was made by the Business Manager in his docket for the Board meeting held January 8, 1925, to the desirability of undertaking, as soon as possible, the survey of the University for which an appropriation has been made by the General Education Board.

In the annual report of the General Education Board for the year 1923-24, which was published last week, occurs the following:

[^1]"I desire at this point to express the hope that a similar report my be made by the officials of the University in connection with each decade of its progress. In these modern times ten years count for as much as one hundred years did formerly. It is worth the while of those engaged in any important undertaking, educational or otherwise, to sum up the reaults of the work accomplished in ten years, to consider the policies which have prevailed, and to decide whether, in view of all the facts, these policies have been correct and have secured the reaults desired. Moreover, it is to be remembered that many policies, at least those of minor importance, may wisely be changed from time to time even under the same administration; for a policy which may have been the best for a certain period may not be the best for another period. It has been customary in educational administration to wait for the change of an administration before introducing or adopting new policies. This is a mistake. The institution is thus too frequently compelled to wait a longer period than is wise. It may, of course, be difficult for an administration to adapt itself from time to time to changes, but, however, difficult this may be, it would seem to be upon the whole a wise policy.""

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The University of Chicago has grown very rapidly - practically doubling its enrollment, resources and expenditures every decade. Its organization and administration have not changed and developed to keep pace with this remarkable growth. It is on the eve of a still further expansion. There has been no fundamental change in the business organization since 1901 when the Comptrolleris office was divided and two new offices - those of Business Manager and Auditor - created in its place. That arrangement was a distinct advance and has vorked very well. But a much greater development has taken place in the University in the quarter century since that change was made than had occurred in the first decade of the University which preceded it, and the question arises whether the time is not more than ripe for a further division of the work and responsibilities. As matters stand at present, to take one instance only, the work of the Business Manager's office is so extensive that the Business Manager has no time or opportunity to supervise, direct and co-ordinate the work of the other administrative offices, as he is expected to do. The result is the University work is practically unsupervised, and friction and lack of harmony with the reaul ting waste and lack of esprit de carps prevail. Recently some improvement in the academic administration has taken place through the doubling of the number of deans.

The Vice-President and Business Manager has been giving much thought to this matter, and has conferred with the President of the Board and the President of the University, and with their concurrence and approval, begs to recommend that he be authorized by the Board to proceed at once, in co-operation with Vice-President Tufts, to make the survey financed by the General Fducation Board and devote the major part of his. time to it until it is completed, giving in the meantime such time as is necessary to the supervision of the work of the Business Manager's office.

There are numerous questions of policy and procedure which must be rightly solved in the immediate future, if the University is to maintain its reputation for good management, and it is hoped that the survey will be so thorough and productive that it will place all the facts of the situation so clearly before the Trustees that they will be enabled to take such action as will accomplish even greater good for the University than did the action taken twenty-five years ago, when the offices of the Business Manager and Auditor were created.










































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[^1]:    The rapid increase of college and university funds, the expansion of academic facilities and opportunities, the rise in student enrollment, characteristic of the last two decades, have suggested the importance of a careful comparative study of these and other similar factors. Mr. Arnett's study of salaries should be brought up to date; a similar study should be made of students' fees; departmental developments and changes in the curriculum should be surveyed from the standpoint of their importance, cost, etc. It is worth inquiring what college training costs the inetitution and the student, Within what limite these costs vary, and what relation can be discovered between expenditure and results. A comprehensive inquiry into these topics, including at the outset all or even many institutions would obviously be impracticable. But much may be learned frore the examination of a single university. Fith this in mind, the board made an appropriation of $\$ 25,000$ to defray the expenses of conducting an inquiry into the educational and financial organization and administration of the University of Chicago, in the hope of thus working out a procedure which would aid college and university authorities generally in obtaining a clearer understanding of their problems.
    "In this connection, it is interesting to quote a passage from a report by President Harper, made in 1902, at the close of the first decennium of the University:

