

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 01389 0177

LIBRARY
Michigan State
University

**PLACE IN RETURN BOX to remove this checkout from your record.
TO AVOID FINES return on or before date due.**

DATE DUE	DATE DUE	DATE DUE
OCT 08 2003 11 2 03 02		

MSU Is An Affirmative Action/Equal Opportunity Institution

c:\clic\datedue.pm3-p.1

**A RECOMMENDED RESIDENCE HALL BUDGET FORM AND PROCEDURE
FOR FERRIS INSTITUTE**

**By
MAX EDMUND SMITH**

AN ABSTRACT

**Submitted to the School for Advanced Graduate Studies of
Michigan State University of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of**

MASTER OF ARTS

School of Hotel, Restaurant and Institutional Management

1958

Approved by _____

This thesis is primarily concerned with a study of practical procedures and forms for developing a budget to be used in college or university housing and food service programs. The objective of this study was the development of a system of budgeting as a method of financial and administrative control which would allow more accurate prognosis of the total financial picture as it involves food service and housing operations of Ferris Institute. Ferris Institute, a college owned and operated by the State of Michigan, was chosen because the author had access to much of the information involved and considered this college's problems typical of the problems faced by other institutions.

In preparing this work, the author has drawn on the published literature pertaining to budgets, accounting, and finance; and also surveyed the procedures and forms of residence hall budgets at other institutions. Assistance was gained by extensive studies of institutional accounting procedures and by personal contact with specialist engineers regarding utility costs. From the above mentioned sources, tempered by the author's practical experience, have evolved the policies, procedures, and forms for budget use proposed to meet the actual operating situation at Ferris Institute.

Development of policies at Ferris Institute or any educational institution is of paramount importance, for they are the basis of the entire program. Such policies must be clear for they establish the framework and limits within which the program must operate. The philosophy and purpose of Ferris Institute is established in the mandate of the legislature in the enabling act making Ferris a state college. The Board of Control and the President execute the over-all educational policies within

which the various departments operate. Budget policies establish the source of income and authorize disbursement. Preparation, execution, control, and use of the budget are all factors determined by policy and objectives.

An important objective is the derivation of budget forms and the procedure for their use which are consistent with the policies of the institution and compatible with the philosophy of the school. The accounts and records incident to the Ferris Institute housing and food service operation are described herein, together with the necessary controls and use of the budget. To be meaningful, the budget accounts should correlate with the general ledger accounts which are the basis for financial reports to the Board of Control and the bonding agency. The fact that Ferris Institute utilizes the multi-type housing and food service necessitates the use of a tri-fold operational budget. The first, the unit budget, specifies in detail the anticipated income and expenditures of the individual housing or feeding unit. The second is the administrative budget which lists the titles, positions, and proposed salaries of the administrative staff; the total of which will be allocated to each unit budget. The master budget, thirdly, is the consolidation of each unit budget. It contains the estimated transactions of the housing and food service program for the coming year.

The budget is presented as a plan within the framework of an educational institution. Therefore, as an instrument for administrative control the procedures for its formulation, modification, and application serve a two-fold purpose. First, it is the means of liquidating loans and properly maintaining the physical plant; secondly, maximizing

Max E. Smith

educational opportunities for students without weakening the financial structure. Most important of all, perhaps, is the recognition of the importance of the internal organization that shares budget responsibility with the chief administrator of an institution. The budget properly administered is thus an instrument of major importance in the total management of a residence hall program.

A RECOMMENDED RESIDENCE HALL PROJECT PLAN AND FLOORPLAN
FOR FERRIS INSTITUTE

By

MAX EDWARD SMITH

A THESIS

Submitted to the School for Advanced Graduate Studies of
Michigan State University of Agriculture and Applied Science
in partial fulfillment of the requirements

for the degree of

MASTER OF ARTS

School of Hotel, Restaurant and Institutional Management

TABLE OF CONTENTS

I. INTRODUCTION	1
II. CRITERIA FOR BUDGET DEVELOPMENT	12
III. RECOMMENDED POLICIES AND OBJECTIVES FOR RESIDENCE HALL BUDGETING AT FERRIS INSTITUTE	31
IV. BUDGET FORMS AND PROCEDURES TO BE EMPLOYED AT FERRIS INSTITUTE.	41
V. CONCLUSIONS AND RECOMMENDATIONS	65
BIBLIOGRAPHY	69
APPENDICES	
A. Distribution of Annual Budget by Calendar Month	72
B. Budget Forms	92

LIST OF TABLES

Table	Page
I. Progress of Single Student Housing at Ferris Institute	8
II. General Administrative Expense Distribution by Unit	50
III. Meal Count	54
IV. Yearly Heating Cost for Residence Hall "A"	57
V. Budget Estimates for Use of Steam Operated Kitchen Equipment .	58
VI. Hot Water Consumption in Dormitories	60

LIST OF FIGURES

Figure	Page
I. Residence Hall and Food Service Organization Chart	10
II. Budget Calendar by Irving Tenner	23
III. Budget Calendar for Ferris Institute	44

• • • • •

• • • • • • • • • • • • • • •

• • • • • • • • • • • • • • •

Chapter I

INTRODUCTION

The problem to be dealt with in this study is the development of a system of budgeting as a method of financial control which will give an accurate prediction of the financial situation in the food service and housing operations of Ferris Institute, a college owned and operated by the State of Michigan. A director of food service and housing operations must be in a position to predict with reasonable accuracy the probable operating results of a given unit in order to properly control the operations involved and meet the obligations assigned to him.

The results gained from such budgetary and operating controls should provide valuable assistance in determining:

1. The financial feasibility of constructing new facilities.
2. A financial plan which can be met from the operation or operations involved.
3. The charge necessary to meet operating costs including financing in view of the operating standards to be followed.
4. An organized, long-term plan for operation of the facilities involved.
5. A method of checking on operating results to make sure that the long-term plan is followed.
6. A means of evaluating the performance of management personnel.

PROCEDURE EMPLOYED IN THE INVESTIGATION OF THE PROBLEM

The data and materials for this study were compiled from a review of existing literature on budgeting, accounting, and finance; investigation of residence hall budget procedures at other institutions; and by studying the budget needs of the housing and food service operations of Ferris Institute. This particular state college was chosen for the purposes of this study because the author had access to the information involved and considered its problems typical of the problems faced by similar institutions.

To establish criteria for the development of a budget, the author made extensive use of various works by established authorities such as John Dale Russell and Thad L. Hungate on budgetary procedures; Irving Tenner and Howard S. Noble for accounting and budget forms; and the American Accounting Association's Readings in Cost Accounting, Budgeting, and Control for financial reports. Heating, Ventilating, Air Conditioning Guide provided valuable information concerning the measurement of the cost of heating buildings.

Periodicals such as College and Business and Institutions also were of assistance as to the importance and value of budgets for residence halls and food service operations. Residence hall budgets and procedures employed at Western Michigan University and the University of Illinois were investigated and also incorporated in this study. Finally, in determining the budget needs for the housing and food service operation at Ferris Institute, a study was made with the assistance of John R. Smith,

the comptroller; Donald K. Miller, chief engineer; and Lawrence Lutz, master electrician.

From the criteria thus established the author developed policies, procedures, and forms for budget use in an actual operating situation.

Ferris Institute

Ferris Institute, located in Big Rapids, Michigan, had an enrollment of approximately two thousand four hundred students in the spring of 1958, according to figures obtained from the Registrar's office of the Institute.¹

The Institute has established a unique reputation in the field of higher education through its seventy-four years of service; first as a proprietary school, later a non-profit institution, and for the last eight years as a state college. From its founding in 1884 and thereafter, its early purpose and record of service labeled Ferris an "opportunity school" close to the needs of the people of Michigan--a heritage from its founder, Woodbridge N. Ferris, which is retained in spirit and in program to this day. Since its early educational pioneering, Ferris Institute has been characterized program-wise by flexibility and adaptation. Dedicated at all times to serve its students by fulfilling the need for practical education, the college has grown in evolving fashion, moving in an ever-increasing scope to provide useful vocational and technical training for students of all ages and abilities.

Founded in 1884 by Woodbridge N. Ferris and called the Big Rapids Industrial School, in a few months it became known as the Ferris Industrial School, and in 1899 it assumed its present name. "The first classes were taught in rented rooms and during the first year of operation one hundred fifty individual student registrations were tabulated. New offerings attracted more and more students, and by 1907, after twenty-three years, more than twenty-five thousand different students had taken business, commerce, and science courses at the Institute. Today its former students number over seventy thousand."²

In 1928, Ferris sold most of his stock in the school to Gerrit Masselink and Bert Travis, two of his associates. Masselink, who became the college's second president, died in 1929. "As the depression came on, the school found itself in financial difficulties. To meet the emergency in 1931, a group of forty Big Rapids businessmen, acting as a Board of Incorporators, in an attempt to insure the perpetuation of its singular service, underwrote the proposition of taking the college out of private ownership and operating it as a non-profit educational institution, governed by a Board of Trustees. In 1949 the college, with assets of more than one million dollars, was offered to the State of Michigan as a gift and accepted in Public Act 114."³

Fire struck the Ferris campus February 21, 1950, completely destroying the Pharmacy Building and the larger of two classroom areas. Fortunately, the Alumni Building was saved and the college offices were relocated there. The remaining space was developed into classrooms, suitable for instruction in the sciences. Eight army surplus barracks were converted for classroom and laboratory use. New construction has removed

temporary, reconverted, and inadequate facilities. The new buildings have been constructed on a revenue bond basis and the construction has provided needed facilities.

As more Michigan students found at Ferris the type of educational program they were seeking, enrollment made spectacular gains far in excess of the past eight years' trend toward larger student bodies.⁴ Enrollment nearly quadrupled, jumping from six hundred forty-eight enrollees in 1953 to two thousand three hundred fifty-six in 1957-58, according to records in the Registrar's office of the Institute. It has been noted that this rate of growth is greater than any other established college in the Midwest.⁵

In addition to providing classroom facilities after the fire in 1950, the Board of Control faced another problem; that of providing housing for the steadily increasing numbers of young people desiring to attend Ferris Institute. In 1953, the officers of the Institute undertook planning for the construction of housing and feeding facilities for a part of the student body. The rapid increase in enrollment and the predicted enrollment forecast for the future made this action necessary. An extensive survey was made, the results of which underlined the need for campus housing.

The Legislature of the State of Michigan has rarely provided tax funds for the construction of income producing facilities. Ferris Institute as a state-owned college was, therefore, forced to finance the cost of its residence hall construction program through the sale of revenue bonds to be retired from income produced by the structures built. Such projects are sometimes classified as self-liquidating. Webster defines the

term self-liquidating as "a commercial transaction in which the normal course of business leads to the conversion of goods into cash."⁶ "Translated into modern educational context, however, the term assumes a slightly different meaning. It might be said that a self-liquidating project is one in which a building is constructed and financed in whole or in part, over a prescribed period of years, through revenue created by the operations of the building."⁷

The next consideration after establishing the need and method of financing was to determine the cost of the project. Plans were developed and bids secured. Next came the checking of the cost of financing and such problems were posed as: How much must be borrowed? Probable rate of interest? Term of loan? The amount of the annual payment? Finally, the sum of money available annually for debt service had to be estimated.

After investigation of housing and feeding programs at many other colleges and universities, it seemed most feasible to the Ferris administration that the multi-unit type of operation was the most economical and practical program the college could undertake. A multi-unit operation consists of the housing of students in two or more dormitories and feeding them at a central food unit.

In September, 1955, Ferris students occupied the first housing and feeding unit which was the beginning of a large quadrangle of dormitories containing eighty-six thousand seven hundred fifty-four square feet and built at the cost of one million four hundred fifty thousand dollars. Modern and functional throughout, the two dormitories and central food service structure were planned to provide the most building possible at a moderate cost to the student. This program was developed into the

present multi-unit type operation where nine hundred eighty-five students were housed in four buildings and were provided food service in a single location. A second multi-unit center was constructed made up of two more dormitories and a food service unit feeding five hundred forty-four students. The progress of housing for single students at Ferris Institute is shown in Table I.

The total financial program for the housing operation, as of the spring of 1958, involved the repayment of borrowed funds totaling approximately five million one hundred thousand dollars over a period of forty years. Annual operating income and expenditures totaling approximately one million three hundred thousand dollars was collected and disbursed and had to be adequately controlled.

The physical and financial operations of the housing and food service at Ferris Institute were co-ordinated by the Director of Residences who in turn was responsible to the Comptroller of the college.

The Director's specific responsibilities were:

1. The employment of professional help related to the residences and food service.
2. Preparation, execution, and control of the annual budget.
3. Establishing policy for the general operation of the housing and feeding program.
4. Approving all purchases.
5. The general maintenance of buildings.
6. Maintaining a working relationship with the Dean of Students for the achievement of educational and social objectives of a residence hall program.

The objectives of the housing and food service organization are to provide clean, healthful living accommodations in an environment which

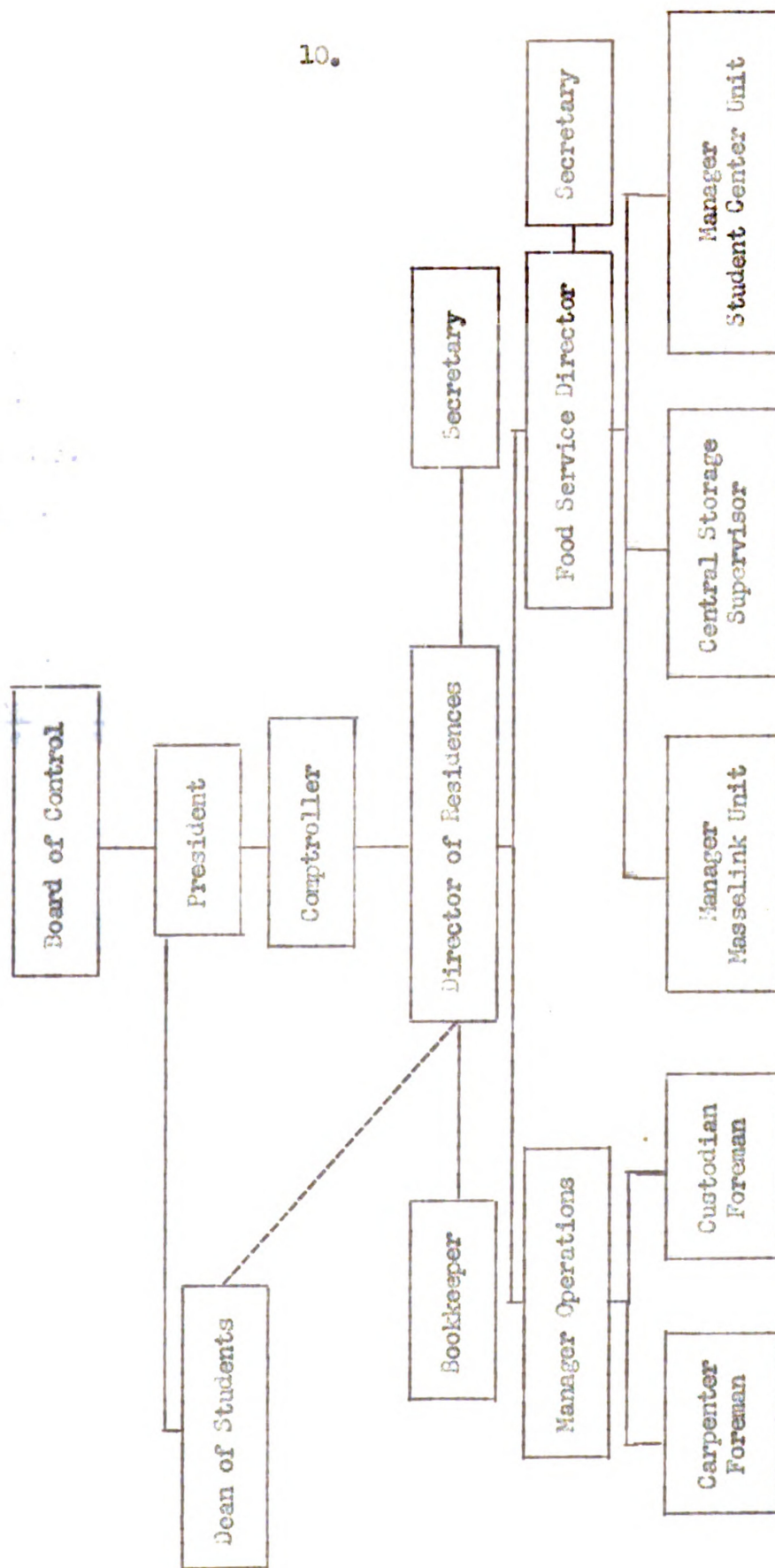
TABLE I. PROGRESS OF SINGLE STUDENT HOUSING AT FERRIS INSTITUTE

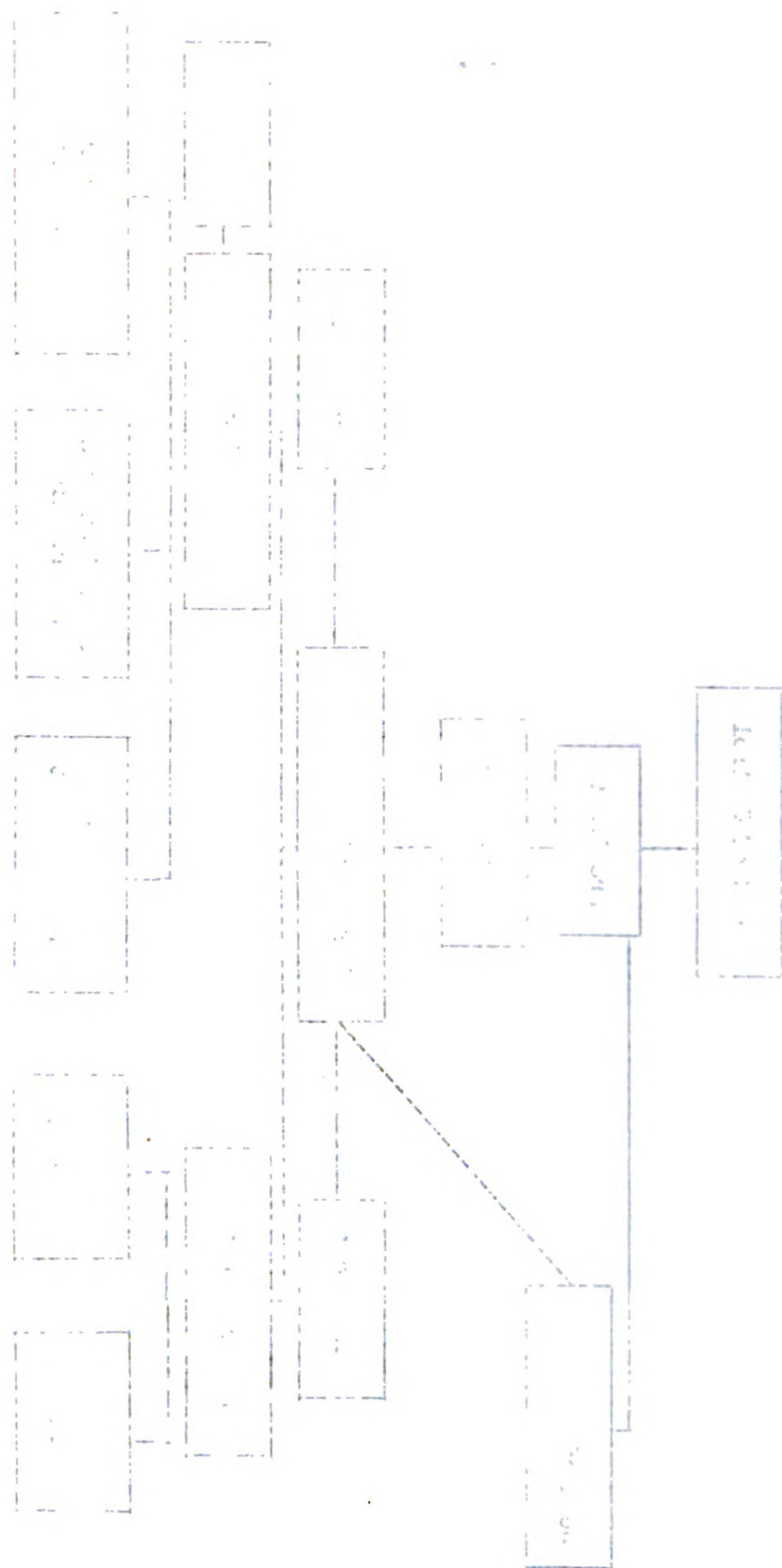
Name of Unit	Date Constructed	Number of Students Housed	Number of Students Fed
Masselink West	1955	202	
Masselink East	1955	148	
Masselink Commons (Food Service Unit)	1955		350
Helen Ferris Hall	1956	284	
Masselink Commons (Food Service Unit)	1955		634
Carlisle Hall	1957	264	
Vandercook Hall	1957	248	
Masselink Commons (Food Service Unit)	1955		1146
Hallisy Hall	1958	260	
Masselink East Addition	1958	96	
Masselink Commons (Food Service Unit)	1955		994
Student Center (Food Service Unit)	1958		508

is conducive to study and to provide appropriate food services. In addition to these provisions, the units of housing and food service must be operated in such a manner as to meet all costs of operation and produce enough surplus capital to maintain buildings and furnishings in good repair. The operation must also provide funds adequate to meet debt service requirements.

Figure I on page 10 shows the organization of the housing and food service operation at Ferris Institute.

FIGURE I. RESIDENCE HALL AND FOOD SERVICE ORGANIZATION CHART





FOOTNOTES

1. Enrollment Report for 1957-58, prepared by Harold Wisner, Registrar, based on the fifth week of the fall enrollment.
2. Ferris Institute School Bulletin, Vol. XXXIII, No. 6, January, 1956, (Big Rapids: Printing Arts Department, Ferris Institute, 1956), p. 2.
3. Ibid., p. 3.
4. Ibid., pp. 10-14.
5. Ibid.
6. Webster's New Collegiate Dictionary, G. & C. Merriam Company, (Cambridge, Mass.: The Riverside Press, 1956), p.767.
7. Building for Tomorrow through Self-Liquidating Projects, Michigan State Board of Education, (Lansing: 1955), p. 1.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489	1490	1491
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Chapter II

CRITERIA FOR BUDGET DEVELOPMENT

The needs of any given operation and the organization in which it functions must largely dictate the budget forms and procedures to be employed in its management. There are, however, certain general criteria which may be used in evaluating budgets and their use. In this chapter the author has reviewed certain recognized authoritative sources in an effort to develop applicable standards and report, in summary form, the pertinent information collected.

Budget Policy

Definition of budget.

Many excellent definitions of the budget have been formulated. John Dale Russell states that "the budget may be defined simply as a plan for institutional income and expenditure covering a definite fiscal period."¹ Another author, Irving Tenner, in his book, Municipal and Governmental Accounting, expresses his opinion in this manner: "A budget is a plan dealing with the proposed expenditures for a given period or purpose and with the means of financing them. Budgets may be classified as long-term and current. The long-term budget covers a period of at least five years, while the current budget generally is prepared for a period of one

year."² Thad L. Hungate, controller and professor of education at Teachers College, Columbia University, states that "the budget is an expression in terms of money of what an institution wants to do and what it intends to do within a given period of time. During this period the budget serves as an instrument of managerial control and is adjustable, through amendment, to changing conditions and needs. It affords, in conjunction with the accounts of actual income and expenditures, a basis of appraisal of financial plans for the period."³ Financial Reports for Colleges and Universities, compiled by the National Committee on Standard Reports for Institutions of Higher Education, states: "A budget is, furthermore, an authorization to incur the expenditures and to collect the income."⁴

From these opinions and definitions this author has based his budget plans and procedures for this paper. It is believed that the foundation for the budget is well contained in the fact that a budget is a plan for income and expenditure covering a definite fiscal period. Russell further points out that the budget definition emphasizes three aspects:

"In the first place, the budget must be a plan. It must be carefully thought out in advance; the parts must be adequately related to each other, and like all other plans, it must be subject to some modification to care for unforeseen conditions as the fiscal period develops.

"In the second place, the budget covers both income and expenditure. In the thinking of some college executives the budget is limited to one side of the operating statement, providing plans for expenditure or only for income. An adequate budget, however, always treats both income and expenditure and relates them effectively.

"In the third place, the definition refers to a specific period, with fixed opening and closing dates. This period for most institutions is the fiscal year of twelve months. The important consideration, however is that there shall be a clear understanding of the specific period to which the budget relates."⁵

Purpose of a budget.

It is essential that the reason for developing a budget to aid in the operation of a business be well established before the actual planning begins. Administrators should be quick to recognize the following: "The general purpose of the budget . . . is to provide an instrument for the administrative control of an institution."⁶ Specific budget purposes may be noted as in the subdivisions of this major general purpose.

The first specific purpose is to properly relate income and expenditure to each other. This requires a careful review, by administrators, of all sources of income and probable expenditures.

The second purpose of a budget is "a means for setting standards of performance."⁷ The net effect of all proposed activities should be considered in proper planning for the budget.

The third purpose of a budget is to provide a plan for "measuring actual results, and for guiding management to satisfactory achievement."⁸ This purpose allows management an opportunity to determine the financial feasibility of constructing new facilities, the plan for their operation, and the expansion of sales and the probable net return to investors.

The fourth and last purpose of a budget "is to provide assurance that the program will be limited to the resources available for its support."⁹ In his book, The Finance of Higher Education, John Dale Russell emphasizes this last statement, with particular reference to budgets for institutions. This author believes the point is well taken whether it is meant for institutions or a business. Most administrators recognize that the service possibilities of their operation far exceed the services that can be rendered with present resources.

Use of budget assumptions.

Budget assumptions, as formulated by housing administrators at the University of Illinois, play an important role in budget planning. At the time a budget is being prepared certain criteria may not have been established due to: inaction on proposals by governing boards; the lack of complete financial status of the year ending; or, in the case of a new enterprise, the lack of any previous records. Other assumptions may be the cost of raw material, employment periods for employees, or wage and salary increases.

A list of budget assumptions answers many of the questions which may be asked by the approving administrators or the governing board.

A few of the assumptions that may be listed are:

1. The assumed number of residence halls' beds in relation to the anticipated enrollment for the ensuing year.
2. Anticipated rate for room and board.
3. A vacancy loss percentage based on contract enforcement and school policy.

4. Policy regarding use of residence hall during the full school year.
5. Assumption of food sales to conference groups.
6. Raw food cost.
7. Debt service payment--based on room sales and board sales.
8. Employment periods for all employees.
9. Food serving days.
10. Reserves for buildings and furnishings maintenance.
11. Wages and salaries.

Procedure in preparation of a budget.

Budgeting procedure, according to Russell,¹⁰ may be divided into three defined steps: preparation, adoption, execution and control. The first step, preparation, involves the making of the financial plan. The second step, adoption, is an act by the Board of Trustees or other controlling agency. The final step, execution and control, covers the management of the budget during the period to which it relates.

The first step, preparation, usually initiated by the chief budget officer, involves the determination of the general policy for the budget, estimating the probable income (which can usually be furnished by the accounting office). As soon as income estimates are complete it is wise for the budget officer to consult with his chief advisors to determine the policy to be followed.

Estimating expense is best accomplished by delegating this responsibility to the various heads of departments. This action tends to

place the responsibility on the persons closely involved in the operation. "The actual formulation of the budget, however, should and usually does involve the whole institution. Staff and faculty members within departments, heads of divisions or schools, deans and officers of administration, as well as the central coordinating committee . . . all have responsibility for contributing their thought to the improvement of the institution through budget planning, and should be given the opportunity to do so."¹¹

Budget as an interpretation of policy.

With reference to an institutional budget, Russell states, "The principle that the president should be the chief budget officer, indicates that the president's office . . . should be in charge of the work of preparing the budget. The first step is to determine the general policy for the budget of the ensuing year. This involves some preliminary estimates of the probable income, which can usually be furnished by the business office. When this estimate is available, the president, in consultation with his advisors, can determine the general policy to be followed. If the estimates of income indicate a shrinkage from that of the current year, the budget policy will necessarily require retrenchments in services. If the probable income is about the same as in the current year, the policy will be to hold the total expenditures within the limits of the former budget. If a larger income seems probable, the policy can permit a commensurate increase in expenditures."¹²

Policy and the budget.

Institutional policy must be adhered to in formulating a residence hall budget. In many institutions the counseling staff is budgeted from funds other than those derived from the operation of the residence hall.

Policy in some institutions directs all personnel salaries and wages required to operate a hall or food service must be budgeted from the hall's operating income. The amount allocated from room and board income for maintenance of buildings and grounds varies from one institution to another. In many instances in the past, funds appropriated from state tax income have provided state colleges and universities of Michigan with heat, light, and power for self-liquidating projects such as dormitories and feeding services. However, this has been changed in the last two years and today most Michigan colleges' residence halls are required to pay for these services from earnings.

Use of the budget.

The budget is used primarily to control expenditures so that they do not exceed the limits of the amount appropriated for each particular purpose. However, as Morey indicated: "It should not be regarded solely as an instrument of economy"¹³ As Russell has said, the budget should be regarded as a useful, financial program.¹⁴ It should be used as a guide to departments in planning and carrying on their work, as well as a guide to management in determining the feasibility of an expanded program.

Budget limitations.

It can hardly be assumed that a budget will be a "cure all" for the financial ills and responsibilities that may encumber a business, but it is an intelligent aid in good accounting procedures and its usefulness cannot be overstated. Many are inclined to believe that a budget's sole objective is only the control of the flow of money. However, a budget must also bring about effective conduct of a given program. As Peirce has related in his chapter, "The Budget Comes of Age," a budget without application of human relations may also become a hindrance rather than an aid. "Too frequently a well-designed budget system has collapsed after being superimposed on a faulty base of administrative personnel policy."¹⁵ "The true control of the budget is through the people who administer it. Given information, understanding, cooperation, and help, they can wield a vital influence on the spending program. If they are kept informed of the financial situation and the outlook, they will administer their areas far more effectively than under a system limited to control by mechanization."¹⁶

Budget Forms and Procedures

Kinds of budgets.

"The two major elements in the budget structure are capital outlay (expenditures for land, buildings, and equipment) and current operations (expenditures for program and income each year that finances them)."¹⁷ The capital budget is established in order to bring into existence new

facilities. Included in a capital budget for residence halls are architect fees, construction, furnishings, interest during construction, and land costs.

The operational budget, with which this paper is primarily concerned, was devised in order to determine: the feasibility of constructing new facilities; a financial plan which could be met through the operation; and the necessary rate to be charged for services rendered to meet operating costs and financing. The operational budget was established also to set up a method of checking on operating results and supplying management with a comprehensive guide.

The Calendar for Budget Preparation

"If the budget is to be an effective plan for the control of finances during a fiscal period, its preparation should obviously be completed prior to the beginning of that period; otherwise the institution would operate for a part of the period without the benefit of the financial plan. The date for beginning the work of preparing the budget for the coming fiscal year is influenced by three factors.

"The first factor is the length of time required to draw up the financial plan. . . . Ample time should be allowed for its preparation in order that the process may not be unduly hurried at the last."¹⁸

The second factor relates to the major elements of the financial plan which provide for the location and hiring of new staff members and for obtaining bids on merchandise and supplies, all of which must be virtually decided upon several months in advance of the opening of the fiscal year.

"The third consideration affecting the time of beginning work on the budget is the fact that estimates of both income and expenditure for any given fiscal period can be made with increasing accuracy as the beginning of the period is approached."¹⁹ For example, it is easier to estimate the probable income from students for 1958-59 on June 15, 1958, than on December 15, 1957. "Accuracy of prediction, therefore, is improved by postponing the preparation of the budget to a point just as near as possible to the beginning of the fiscal period."²⁰

The author believes that sound financial planning requires that preparation of the budget be started in time for its adoption before the beginning of the period for which it applies. To insure that adequate time will be allowed, a budget calendar should be prepared listing each step in the budgetary procedure and the time allowed for its completion. Irving Tenner presents, in the author's opinion, a good example of a budget calendar. This figure is reproduced on the next pages of this manuscript.

Assignment of Responsibility for Budget Preparation

Budget responsibility.

Ultimate responsibility for the approval of the residence hall budget at a given institution may rest with a Board of Control or Board of Regents. With particular reference to budget responsibility for institutional budgets for colleges and universities, Hungate makes the following statement: "Within the institution the president bears final

responsibility. The chief financial and business officer is generally made responsible for estimating the income of the entire institution, for estimating expenditures for those activities under his supervision, and for assisting in budget formulation."²¹

Collection and unification of income.

In a previous paragraph it was stated that the financial officer of an institution should provide the budget estimates for income, however this estimate is subject to review by the chief budget officer. The estimate should be one that is expected to be realized. In any event, for each unit of finance, income should be classified by source. One of the likely sources of information on income according to Morey is: "Detailed statements of income of previous years from all miscellaneous sources, on the basis of which an estimate, always conservative, may be made of the probable income for the succeeding year" ²³

College and university residence halls and food service gross income estimates can be classified as "fixed income" in most instances. According to Hungate²⁴ and Morey²⁵ verification of this income is made by referring to past records and future enrollment predictions. The development of estimates for residence halls and food service will be discussed later in this paper.

Collection and verification of expense estimates.

In the institutional budget, estimates for departmental expense

FIGURE II. BUDGET CALENDAR BY IRVING TURNER²²

For Budget Year Beginning January 1, 1959

Date	Steps in Budget Procedure
Prior to October 1, 1958	Budget officer prepares estimate forms and instructions.
October 1	Budget officer distributes estimate forms and instructions among departments.
October 1 to October 21	Departments prepare estimates. Budget office prepares estimates of fixed charges and other nondepartmental items. Budget officer also prepares estimates of taxes and other non-departmental revenues.
October 22	Filled-in departmental estimate forms are returned to the budget officer by departments.
October 22 to November 1	Budget officer consolidates estimates.
November 2 to November 30	Budget officer conducts departmental hearings. Budget officer confers with chief executive, and the latter determines amounts to be finally recommended to the legislative body. Chief executive also determines amounts to be adopted as the official revenue estimates of the municipality for the budget year. Chief executive prepares budget message. Budget officer prepares final budget document for submission to legislative body.
December 1	Budget document, including message of chief executive, is turned over to legislative body.
December 2	Legislative body turns budget document over to its budget committee.

FIGURE II. BUDGET CALENDAR BY IRVING TENNER (continued)

Date	Steps in Budget Procedure
December 2 to December 15	Budget committee conducts public hearings and makes recommendations concerning the amounts to be appropriated.
December 16	Budget committee turns its recommendations over to the legislative body.
December 16 to December 23	Legislative body considers the committee's recommendations.
December 23	Legislative body adopts the budget by passing an appropriation ordinance. Legislative body levies taxes by passing a tax levy ordinance.
December 27	Request for allotments is sent out by chief executive through budget officer.
January 2, 1959	Adopted budget is recorded on the books.
January 6	Departments submit work programs and allotment schedules to budget officer.
January 6 to January 15	Budget officer consolidates allotment schedules and presents them with recommendations to chief executive.
January 15	Chief executive makes final revisions.
January 16	Department heads are informed of the amounts allotted to them. Allotments are recorded on the books.

for departmental expense are usually assigned to deans or department heads. Compilation of these estimates many times are arrived at by a committee which includes all of the departmental staff.²⁶ The assembling of budget expense estimates is the responsibility of the financial officer who presents the requests to the president of the institution. It is essential that the chief budget planner, assuming this is the president, acquaint the department heads with the resources of the institution. In many instances the chief budget officer hands out, "comparative uniform statements analyzing the expenditures of all departments under standard headings over a period of years, and, to a limited degree, comparative statements of similar departments in various other universities of similar size, maturity, and scope of work."²⁷

Supporting data for the budget.

"No budget can be thoroughly considered unless all facts having a bearing on it are assembled. . . . The information desirable to deal with it adequately must be extensive and exhaustive."²⁸ In the preparation of departmental expense, it is of vital importance that the recommendations in the budget conform to the requirements of the program to be followed. Salaries of employees should be listed and increases noted. In the event new employees are to be added, justification should be presented to support the budget request. Two authorities, Hungate²⁹ and Morey,³⁰ recommend an itemized statement of all positions to accompany budget estimates for salary expense.

The University of Illinois Residence Hall Budget, reviewed by the author, explains each item of expense as it is entered into the departmental budget. This method substantiates income and expense entries, leaving little to the imagination of the budget approving officers. It also aids in the control of the budget by management personnel.

Distribution of income and expense.

In the preparation of a budget it has been recommended by certain authorities that the budget estimates may well be made an integral part of the accounting system by being recorded in the general books of account. The advantage of such procedure is to bring under control, as a part of the general books, records relating to income not yet realized and unexpended balances of appropriations. Without proper distribution of each item of income and expense it would be an impossibility to properly maintain such control over these items.

The importance of proper distribution of these expenses can further be emphasized in the fact that, for managerial control, the department manager or supervisor must be aware of each item as it is stated, in order for him to properly administer a budget. Without proper distribution of income and expense some divisions may be carrying the financial load of others.

Budget review and approval.

In most institutions of higher learning the president presents

the completed budget, according to the time table, to a governing board for review and approval. Due to the length and detail of most institutional budgets, the president will present with the budget a letter of transmittal which will outline the important matters for board consideration.

In some institutions, the internal officers approve of all local budgets which would include a residence hall budget. In other instances the above procedures for institutional budgets are followed.

The governing board, in considering the budget, has two major responsibilities. First, to judge the general policies that are involved in the proposed financial plan, and second, to make certain that the proposed expenditures are safely within the limits of probable income. Once the considerations are approved, the budget may be looked upon as an interpretation of policy for administrators to follow.

Budget revision.

Revision of the budget may be made necessary by the fact that forecasts of expenditure and income set up prior to the fiscal period cannot be exact in every detail. To meet changing conditions, the budget should be modified as necessary during the course of the year.

The revision of the budget is carried on in a manner similar to that used in its original preparation and by the same persons. All changes affecting the balance between income and expenditure should be formally adopted by the approving body.

"It is a good principle to require that a change in any detail

after being recommended by the officer administering the unit concerned, should not be effective until approved by the officer or agency to which he is responsible."³¹

"Budget revision is occasioned most frequently by the necessity of increasing the appropriation for certain purposes during the year. An increase to an item during the year may legitimately be met in one of four ways: (a) transfer from unappropriated income, such amounts being available because income during the year has exceeded the budget estimates; (b) transfers from a contingency fund originally included in the budget to take care of unforeseen emergencies; (c) transfer from one budget account to another, which is possible in case some organizational unit will not need all the appropriation designated for it in the original budget; and (d) transfer from funded reserves, which is possible only in case the institution has in previous years set up reserve funds from unexpended income."³²

• The first step in the process of creating a new product is to identify a market need. This involves conducting market research to determine what consumers want and need. Once a need is identified, the next step is to develop a concept for a product that meets that need. This is often done through brainstorming and sketching. The third step is to create a prototype, which is a small-scale model of the product. This allows the designer to test the product and make any necessary adjustments. The fourth step is to create a business plan, which outlines the costs of production, the pricing strategy, and the marketing plan. Finally, the product is manufactured and distributed to the market.

• The second step in the process of creating a new product is to develop a concept for a product that meets the identified market need. This is often done through brainstorming and sketching. The third step is to create a prototype, which is a small-scale model of the product. This allows the designer to test the product and make any necessary adjustments. The fourth step is to create a business plan, which outlines the costs of production, the pricing strategy, and the marketing plan. Finally, the product is manufactured and distributed to the market.

• The third step in the process of creating a new product is to create a prototype, which is a small-scale model of the product. This allows the designer to test the product and make any necessary adjustments. The fourth step is to create a business plan, which outlines the costs of production, the pricing strategy, and the marketing plan. Finally, the product is manufactured and distributed to the market.

• The fourth step in the process of creating a new product is to create a business plan, which outlines the costs of production, the pricing strategy, and the marketing plan. Finally, the product is manufactured and distributed to the market.

• The fifth step in the process of creating a new product is to manufacture and distribute the product to the market.

FOOTNOTES

1. Russell, John Dale, The Finance of Higher Education, (Revised Edition, Chicago: University of Chicago Press, 1954), p. 66.
2. Tenner, Irving, Municipal and Governmental Accounting, (New York: Prentice-Hall Inc., 1955), p. 21.
3. Hungate, Thad L., Finance in Educational Management of Colleges and Universities, (New York: Bureau of Publications, Teachers College, Columbia University, 1954), p. 66.
4. The National Committee on Standard Reports for Institutions of Higher Education, Financial Reports for Colleges and Universities, (Fourth Impression, Chicago: University of Chicago Press, 1945), p. 11.
5. Russell, op. cit., pp. 66-67.
6. Ibid., p. 68..
7. Peirce, James L., "The Budget Comes of Age," Readings in Cost Accounting, Budgeting, and Control, ed. William E. Thomas, (Cincinnati: South-eastern Publishing Company, 1955), p. 142.
8. Ibid., p. 142.
9. Russell, op. cit., p. 72.
10. Ibid., pp. 73-86.
11. Hungate, op. cit., pp. 66-67.
12. Russell, op. cit., pp. 74-75.
13. Morey, Lloyd, University and College Accounting, (New York: John Wiley and Sons, Inc., 1950), p. 8.
14. Russell, op. cit., p. 81.
15. Peirce, op. cit., pp. 133-134.
16. Hungate, op. cit., p. 92.
17. Ibid., p. 68.
18. Russell, op. cit., p. 73.
19. Ibid., p. 74.

• The first part of the paper discusses the importance of the research and the objectives of the study.

• The second part of the paper discusses the methodology used in the study and the data collection process.

• The third part of the paper discusses the results of the study and the findings of the research.

• The fourth part of the paper discusses the conclusions of the study and the implications of the findings.

• The fifth part of the paper discusses the limitations of the study and the areas for future research.

• The sixth part of the paper discusses the acknowledgments and the references.

• The seventh part of the paper discusses the appendices and the supplementary materials.

• The eighth part of the paper discusses the conclusion and the final remarks.

• The ninth part of the paper discusses the bibliography and the list of references.

• The tenth part of the paper discusses the index and the table of contents.

• The eleventh part of the paper discusses the glossary and the list of abbreviations.

• The twelfth part of the paper discusses the list of figures and the list of tables.

• The thirteenth part of the paper discusses the list of equations and the list of formulas.

• The fourteenth part of the paper discusses the list of symbols and the list of units.

• The fifteenth part of the paper discusses the list of acronyms and the list of initialisms.

• The sixteenth part of the paper discusses the list of footnotes and the list of endnotes.

• The seventeenth part of the paper discusses the list of appendices and the list of supplementary materials.

• The eighteenth part of the paper discusses the list of references and the list of citations.

• The nineteenth part of the paper discusses the list of figures and the list of tables.

• The twentieth part of the paper discusses the list of equations and the list of formulas.

20. Ibid., p. 74.
21. Hungate, op. cit., p. 66.
22. Tenner, op. cit., p. 23.
23. Morey, op. cit., p. 14.
24. Hungate, op. cit., p. 78.
25. Morey, op. cit., p. 14.
26. Hungate, op. cit., p. 79.
27. Morey, op cit., pp. 14-15
28. Ibid., p. 14.
29. Hungate, op. cit., p. 79.
30. Morey, op. cit., p. 15.
31. Russell, op. cit., p. 83.
32. Ibid., p. 83.

Chapter III

RECOMMENDED POLICIES AND OBJECTIVES FOR RESIDENCE HALL BUDGETS AT FERRIS INSTITUTE

This discussion of Ferris budgetary procedure is based on the fundamental principle that the residence hall budget is an instrument of administration. The steady increase in numbers of college students has forced Ferris Institute, as well as most institutions of higher learning, to provide housing and feeding facilities on its campus. In many instances, as at Ferris, this program has become a major business function which heretofore had not been so considered. Thus, has come the need for consideration of budgetary control. Larger universities have for many years recognized the need and established regular budgets by which they operate their residence hall programs. Smaller colleges and similar institutions entering into the field of housing and feeding students should also recognize the importance of budgets for the control of existing operation as well as for future expansion.

Policy and the Ferris Budget

Need and purpose.

Budgetary controls will provide the Ferris residence hall

administration with a means for predicting with reasonable accuracy the financial future of the existing program, which will in turn not only be an aid in determining the feasibility of constructing new facilities but also in determining the financing plan. A budget is further necessary to provide feeding and housing with a method of comparison of operating results and to provide a guide for evaluating the performance of management personnel.

The fact that Ferris Institute is in a state of growth which demands increased housing and feeding facilities, far beyond the usual, accounts for the need of even greater control in order to establish a sound financial system.

Institutional policy.

The President and Board of Control establish measures that will affect residence hall budget and operation at Ferris Institute. Some specific policies as established are;

1. The rate which can be charged for room and board.
2. Amount from room and board fee to be allocated to room sales and the amount for food service.
3. The salary schedules for employees.
4. Extent of counseling personnel to be charged to the housing division.
5. The number of operating days for rooms and feeding services.
6. The established conference rates.
7. Which students will be required to live in campus housing units.

Budget assumptions:

It is recommended that the Ferris budget contain a section devoted to budget assumptions, such as those listed on pages 15 and 16. In order to construct a budget, many such assumptions must be made before an actual policy can be established. In all likelihood, the assumptions will be largely based upon past established policy and will be of definite aid to the approving officers when the budget is presented for review.

Procedure in Preparation of the Budget

Preparation.

The first factor in establishing the Ferris budget will be that of establishing a time table for preparation which is illustrated in Chapter IV. The second consideration will be that of assigning the responsibility of preparation for the residence hall budget to the director of residences who in turn will assign the food service director to prepare estimates for that department. The operations manager will be responsible for the residence halls' estimates. Policy affecting the budget should be established by the president and controller, who in turn, would be responsible to the Board of Control.

Adoption.

When the Ferris budget has assumed its final form, it should be

presented to the president and Board of Control for approval. Recommendations made by the president should meet with the approval of the governing body.

Execution and control.

The author, in the following, made full use of passages from Readings in Cost Accounting, Budgeting, and Control, as the quote exactly expresses his thought:

"Control might be quickly and simply defined as a disciplined effort to follow a plan or explain deviations from it. The effort referred to takes the form of self-discipline--voluntary, unified, and cooperative. The deviations from a plan are deliberate, foreknown, and authorized. If they are apparently beyond anyone's ability to prevent--as for instance a failure to reach budgeted sales volume--at least they are spotlighted as early as possible, and management has the chance to take whatever action is indicated. Control is simply the modern form of the old formula, 'management by exception.'

"It is, of course, at the point of deviation from the budget that most of the human problems are born. This is, by design, the central point in the entire system--the moment which demands explanation, instruction, decision, argument, or even discipline, as the case warrants--the flash point for management in action.

". . . the effect of control on people is commensurate with their training and conditioning for it. If they understand thoroughly the meaning and uses of control, they will view it in the light of common

sense. They will neither resent it nor be awed by it. They will turn it to the constructive use for which it is intended, and it will become an aid rather than an obstacle."¹

"Three major functions are involved in the execution and control of the budget: (1) control of expenditures so they do not exceed the limits of the specified appropriations for each particular purpose; (2) revisions of the budget during the year to care for unforeseen conditions; and (3) the closing-out of the budget at the end of the fiscal year."²

The duty of controlling expenditures so that the budget estimates will not be exceeded should be assigned to the director of housing and food services. The president and comptroller act under specific instructions of the Board of Control which takes precedence over any orders that may be given by any other administrative officer or agency on any matter connected with finance. The bookkeeping procedures of the housing office should be established with budget accounts for each item of expense. Thus, either the total income or the total expense for a unit may be easily and quickly reviewed. Whenever the budgeted amount has been expended, all persons involved should be immediately notified and remedial steps taken to revise this account to fit the needs of the department being charged.

Monthly financial reports prepared by the business office are essential to the successful application of a housing and feeding program. The basic purpose of any report is to give information. A number of officers of the Ferris Institute and the bonding agency providing funds for self-liquidating housing and feeding projects will have need for the

financial information, and a well-planned system of reports will be essential if their needs are to be adequately met.

The most urgent need for adequate reports arises within the internal administrative organization of the housing and food service operation. The maintenance of sound control over the affairs of the department would be difficult, if not impossible, unless full information regarding all financial matters were available to the executive officers. The urgency of this demand for financial reports would be directly related to the size of the operation. In any event, a report will be needed if only for the sake of the record.

The Board of Control at Ferris Institute bears the final responsibility for the conduct of the college. If anything goes wrong in any phase of the institution's activities, the members are held finally accountable. To adequately discharge this important responsibility, the board members must be furnished with complete information, presented in a form which will reveal the precise financial situation of the institution. Fiscal affairs require financial reports.

It is extremely important also that a financial report be presented periodically to the bonding or loaning agency which provides the funds for self-liquidating projects. Ferris Institute is required to present a monthly financial report to the agency from which money has been borrowed for the present construction of dormitory and food service units.

Ferris Institute provides a balance sheet, an operating statement, and a statement of revenue and expenditure for each individual unit

of operation. This must be done to facilitate the comparison of the proposed unit budget with the actual operation.

In a previous paragraph it was stated that an important phase in control of expense is the establishing of budget accounts in the book-keeping system. Another control measure recommended for use at Ferris Institute is that of comparing the monthly financial report with the budget. To accomplish this it will be necessary to break down the annual budget into calendar months. This breakdown is shown in detail in Appendix A. under the title, Distribution of Annual Budget by Calendar Months. Furthermore, in the budget distribution by calendar months, a policy and method of arriving at salary and wages expense must be approved by both the business office and the budget planner.

There are certain generalities concerning the Distribution of the Annual Budget by Calendar Months which should be explained. It should be understood that the number of students, the various rates, and other figures used are fictitious. They are placed in the report merely to give the reader a better illustration of how income and expense should be computed by the day and by the month.

The accounting or business office personnel in charge of making the financial report must be in complete accord with the budget planner as to the accounts established in the master budget and what is applied to each account. For example, should the payroll be entered in the financial report for the pay period only? If the pay period is like that of Ferris Institute (every two weeks), an accurate monthly salary and wages expense item would be impossible without estimating the remaining two or three days of a month. Another factor to be taken into consideration would

be that of accounts payable. The financial report must be complete and final if it is to be used as a comparison with a budget. Incomplete, the report would be of no value.

Closing the budget.

Much depends upon the agreement made with the financing firm. In the case of Ferris Institute, all net income beyond the necessary requirements is placed against the total bond issue. When a certain department of either housing or food service does not expend all its income, the balance cannot be used to build up a reserve to be carried over from one year to the next. Unexpended balances may occur even under the most careful budgetary procedure; for the most part they will be small in amount in the individual accounts, but the total may reach a significant sum.

Budget Responsibility

Ultimate responsibility for the approval of the residence hall budget at Ferris Institute will rest with the Board of Control. Within the institution the president will bear final responsibility while the comptroller and director of residences are to be responsible for estimating income. For estimating expenditures, the director of residences should request this information from the heads of the various departments associated with the budget. The food service director, assisted by the unit managers, will develop all estimates for that department. In the residence halls the housing counselor will be responsible for the expendi-

tures incurred by and for the halls' counseling staff. The operations manager will estimate the buildings' maintenance needs. Thus, the actual formulation of the budget should involve the whole residence hall and food service supervisory staff.

Use of the budget.

The budget as planned for use of Ferris Institute's residence hall program would be devised primarily to aid management in producing a maximum program for the housing and feeding of students within the financial climate necessary to pay for the building and operating program.

The use of a budget in formulating plans for future expansion of the Ferris housing program can be of utmost importance. It will lend support to departmental planning for operating more efficiently and act as a guide for departmental managers.

FOOTNOTES

1. Peirce, James L., "The Budget Comes of Age," Readings in Cost Accounting, Budgeting, and Control, ed. William E. Thomas, (Cincinnati: South-Western Publishing Company, 1955), pp. 134-135.
2. Russell, John Dale, The Finance of Higher Education, Revised Edition, (Chicago: University of Chicago Press, 1954), p. 81.

Chapter IV

BUDGET FORMS AND PROCEDURE TO BE EMPLOYED AT FERRIS INSTITUTE

In view of the necessity and important position of a residence hall operational budget in the affairs of Ferris Institute, the accounts and records incident to the operation are described herein, together with the proposed necessary controls and use of the budget. Since one of the main services rendered by a budget is to allow management a firm control over operational procedures of the business, discussion and illustrations of budgets by department are included in detail.

The kind of budget proposed for the Ferris housing and food service is an operating budget. The fact that Ferris Institute uses the multi-type housing and food service necessitates three types of budgets. The first, a unit budget, is for the individual housing or feeding unit. The second is the administrative budget. The third, the master budget, is a consolidation of each unit budget and the administrative budget.

Unit budget.

The residence hall budget form is based on the income and expense of a single hall. The food center of a multi-unit operation may base its income on the numbers of students fed from two or more halls with this income being used for operating expenses. The residence halls

and food service unit budget might be compared to a departmental budget of a large retail business or manufacturing company. The income and expense accounts of each unit, when totaled, make up the master budget. (Appendix B, pages 94-99.)

Administrative budget.

This budget is formulated to properly allot administrative expense to the various units. It lists the titles and positions of the administrative staff. The total expense will be allocated to each budget in proportion to the number of students in the unit. (Appendix B, p. 100).

Master budget.

The master budget is a combination of the unit budgets. All of the estimated transactions for the coming year are found in the master budget. When these transactions are accounted for, the estimated financial position at the end of the coming year, together with the estimated financial progress during the year, will be available. (Appendix B, p. 92.)

A Calendar for Budget Preparation

Ferris Institute's fiscal year begins July 1 and ends June 30. Thus it would seem most practical to begin budget preparation soon after the calendar year begins. The main outline of the budget should be apparent by about May 1, at which time it may be possible to proceed with

some preliminary arrangements. A model calendar budget for Ferris Institute may be found on page 44, Figure III.

Master Budget Accounts

Collection and verification of income.

At Ferris Institute, the Director of Residences would provide the budget estimates for income; however, this estimate should be subject to review by the Comptroller. Past financial records will be available for use, and by using the enrollment predictions made by the Registrar, reasonable estimates can be made.

Classification of income.

The first account in a residence hall and food service master budget is that of income. At Ferris Institute, as in most similar institutions, the sources of income are: student fees for room and board, conferences, guest sales, forfeited deposit fees, employees meals, and miscellaneous. In the paragraphs below it is explained how income estimates should be determined from the probable sources just listed.

Income from student room and board fees.

Room and board fees, which are the main source of income in a residence hall and food service budget, are established by basing the

FIGURE III. FERRIS INSTITUTE BUDGET CALENDAR

For Budget Year Beginning July 1, 1959

Date	Steps in Budget Procedure
Prior to February 1	Budget officer prepares estimate forms and instructions.
March 1	Budget officer distributes estimate forms and instructions among departments.
April 1 to May 1	Departments prepare estimates. Budget officer prepares estimates of fixed charges and other nondepartmental items.
May 2	Filled-in departmental estimate forms are returned to the budget office by departments.
May 2 to May 15	Budget officer consolidates estimates.
May 16 to June 1	Budget officer conducts departmental hearings. Budget officer confers with Comptroller and President and the latter determines amounts to be finally recommended to the Board of Control. Budget officer prepares final budget document for submission to Board of Control.

.....

.....

.....

.....

.....

.....

estimate of budgeted operating expense against probable income. For this, the rates charged by nearby institutions operating like facilities are often used as a "yardstick" or guide. In addition to the operating expenses it will be necessary to earn enough to handle the debt service requirements of the bond issue.

From the weekly rate established for room and board, college officials have decided it would be best to present room and board rates to the student in "package" form or by the term. All terms at Ferris average very close to twelve week periods. Upon recommendation, for accounting purposes, the weekly rate has been broken down to a fixed amount for room and the remainder for board. At this point the income from the above source would be computed by multiplying the room rate for one year by the number of students living in the dormitories. This gives the gross income from student room sales. The same method can be used to derive food sales income.

One important factor in attaining net income from room and board is the allowance for vacancy loss. Policy, as established by the institution, determines either a high rate of occupancy or a high vacancy loss. Ferris Institute requires all single women students and all male freshman and sophomore students to live in dormitories as long as space is available. By adhering closely to this policy, the dormitories have been able to maintain small losses due to vacancy.

Conference income.

The calendar analysis, in Appendix B., shows by month the days

the dormitories are used by the students and the days they are vacant. From this it will be assumed that there are many periods during which the rooms and food service can be made available for conferences. This source of income is welcomed by any residence hall and food service in the "off-periods." Past records and close cooperation with college conference coordinators will afford the most reasonable measures for estimating this particular income.

Income from forfeited deposit fees.

Estimating forfeitures must be done by using past records, and it is recommended that estimates be conservative in nature as the pattern of such income is quite flexible.

Food service income.

The number of students times the rate and the number of weeks served equals the amount of gross income that can be expected from food service. Guest meals will not be a great source of income but should be considered. The revenue derived from conference guests can well aid in defraying costs, especially during the summer or other "off-periods." A director can estimate total conference sales for both housing and food service by keeping in close association with all departments on the campus and by discussing with department heads the probabilities of anticipated conferences. Many of the groups attending meetings at Ferris

Institute return regularly because of the excellence of the particular facilities offered.

Employees' meals.

All Michigan colleges require food service personnel to purchase their meals from the unit in which they work. In turn, many of the colleges reimburse the employees for those meals. Thus, employees' meals must be taken into consideration as both income and expense. At Ferris Institute this income amounts to several thousand dollars yearly. Even though the entry may be purely a bookkeeping entry, it aids the budget director in establishing a higher rate for retirement pension purposes. The above procedure is required by the Federal Bureau of Internal Revenue for income tax purposes.

Miscellaneous income.

This item might include several sources and in regard to content should be carefully analyzed by residence hall officials. Coin-operated machines such as toll telephones would be a source of miscellaneous income. However, when amounts of income from any source reach a proportion of consequence which is of a steady nature, it is recommended that a separate account be established for this item.

Total income.

The total income in the master budget should be complete in every detail. The author believes that accuracy in estimating income is of prime importance and that there should and can be a closer estimate made of the total income than of the total expense. Unforeseen vacancies would be the major hindrance to an accurate estimate.

Collection and verification of expense estimates.

The assembly of budget expense estimates would be the chief responsibility of the director of residence halls who in turn would delegate the unit responsibility to the various heads of departments. After compilation the director would submit the completed budget to the comptroller for review. Supporting data for each item of expense would be imperative, as the author explains in detail under "Expense Accounts."

Classification of expense estimates.

In establishing the expense accounts for the Ferris master budget, four categories were used: Administration, Operations, Other, Reserves. In the following pages each expense account, as entered in the Ferris residence hall master budget, will be explained in detail.

Administrative.

Administrative expense as it appears in the master budget is the total of all salaries and wages of the over-all administration of the residence halls and food services operations. At Ferris, this expense will include the salaries of the director of residences, a secretary, and four clerk accountants. The administration of a residence hall and feeding program requires the budget planner to provide a separate budget sheet, as shown in Appendix B. On the following page will be found the food service administration budget and the halls' administration budget.

To distribute administrative expense properly to each hall and food service unit, a formula for proportioning the expense was made by directing half of the expense to housing and the other half to food service. The fact that Ferris has many housing units and two feeding units means that a further breakdown has to be made in order to fulfill the unit budget requirements.

For the hall unit budget, the total administrative expense amount allocated will be divided in proportion to the number of students in a hall; in the case of a food unit, the expense should be allocated in accordance to the number of persons fed in a unit. See Table II.

Experience in this field shows that food service administrative expense should be separate from general administrative in order that it may be directed wholly to the food service department. At Ferris, this expense is composed of the salaries of the food director and secretary.

Residence halls' administration includes the manager of halls

TABLE II. GENERAL ADMINISTRATION EXPENSE DISTRIBUTION BY UNIT

Note: The following figures assume that 1200 students are housed in all halls. Housing operations assume one half of the total administration expense and the food units the other half. Total administrative expense is \$15,000.

Hall "A"	-	\$7500 x 200/1200	=	\$1250.00
Hall "B"	-	\$7500 x 150/1200	=	\$ 937.50
Hall "C"	-	\$7500 x 350/1200	=	\$2187.50
Food Unit 1	-	\$7500 x 700/1200	=	\$4375.00
Hall "D"	-	\$7500 x 210/1200	=	\$1500.00
Hall "E"	-	\$7500 x 260/1200	=	\$1625.00
Food Unit 2	-	\$7500 x 500/1200	=	\$3125.00

and his office staff as pertaining to the operations. To proportion the expense, the same formula for division is employed as was used for general administrative (as explained in a preceding paragraph).

All other items of expense listed under administrative are self-explanatory and the amounts are entered in the master budget or income and expense summary sheet in total. In addition, it should be noted that in place of the items listed, there may be other expense items to list that are peculiar to specific organizations.

Operations.

Salaries and wages are near the top of the list under operating expense and in amount of dollars spent are second only to raw food costs. Here again, the policy of the school and the makeup of the housing organization may be the deciding factor as to which account expense is charged. Ferris Institute policy states that the resident advisor of a hall, the receptionist, and other desk personnel are responsible to the manager of residence halls for certain operating functions. Residence hall's counselors are also a part of the operating salaries and wages expense. In addition, janitors', and housekeepers' wages are charged to the operating staff.

The food service budget for salaries and wages should include the unit manager and other supervisory staff as well as all other personnel in this department. It would be well to note that each individual position is listed by classification for both the housing and food service personnel in the unit budget. Although not shown in this paper, it is

sometimes requested that an attached sheet listing names and classification be presented with the budget for the college officials' approval.

In planning Ferris Institute's first housing and food service budget, it was necessary to take into consideration the fact that the summer enrollment is small. Thus, most of the housing and food service staff are on a ten-month work schedule. Only key administrative, management, custodial, and a small number of food service personnel are employed during the summer months.

Student salaries and wages, though not separated in the master budget, should be listed by position and numbers in the unit budget. From experience and investigation at other schools, it has been found that the budget planner must treat this expense with as much thoroughness as he would when budgeting for regular employees. Otherwise he will find the situation out of hand.

Subsistence.

The resident advisor received an apartment in the hall as a part of her compensation, as well as all meals in the food service unit while school is in session. While this is not a formidable entry, it is still an expense and should be treated as such. It is also necessary to carry this as an expense and to credit the person's salary with the dollar amount involved for tax and pension purposes.

Raw food cost.

The largest single cost in the housing and feeding of students is that of food. There are many factors which govern this expense and all must be considered carefully when determining the budget needs.

The actual food cost allotment at Ferris Institute is ninety-two cents a day per student or approximately fifty per cent of the gross income per day per student. At this writing, however, the food cost for the present year is but thirty-three per cent. According to records established by the food service department this differential is due largely to absenteeism on the week ends and during breakfast periods. By maintaining accurate records of meals served, it will be possible to forecast the number of students to be fed on a particular day and meal. See Table III, page 54.

Factors such as purchasing and other food control measures aid in determining raw food costs. All food items are bought after considering quality, quantity, and price. The control of food portions served is also an important consideration. Each menu is precosted to meet the requirements as established by the administration. A physical inventory of the food stores is taken at the end of each month; requisitions are used, and a full-time storeroom man is employed to issue and receive. In the kitchen, accurate production records are also maintained.

The first Ferris food budget figures were based on a state-wide college norm. Today, the author frequently compares the food costs with those of other schools throughout the state. Certain food control measures are necessary to attain a proper net income. They are also meant to

TABLE III. MEAL COUNT - APRIL, 1958

Date	Breakfast	Lunch	Dinner	Total
Tuesday, April 1	374	1050	1063	2487
Wednesday, April 2	336	1005	1025	2366
Thursday, April 3	350	914	—	1264
Thursday, 4/3 through Monday lunch - Easter recess				
Monday, April 7	—	—	130	130
Tuesday, April 8	425	1055	1060	2540
Wednesday, April 9	495	1018	1125	2638
Thursday, April 10	498	1035	1063	2596
Friday, April 11	264	1015	660	1939
Saturday, April 12	175	547	461	1203
Sunday, April 13	162	—	555	717
Monday, April 14	360	1021	1089	2470
Tuesday, April 15	324	1005	1128	2547
Wednesday, April 16	255	1071	1063	2389
Thursday, April 17	400	1085	1057	2542
Friday, April 18	256	1038	504	1878
Saturday, April 19	245	650	470	1365
Sunday, April 20	173	—	456	629
Monday, April 21	378	1078	1091	2547
Tuesday, April 22	325	1046	1066	2437
Wednesday, April 23	550	1078	1040	2668
Thursday, April 24	455	1032	1124	2611
Friday, April 25	528	1020	548	2096
Saturday, April 26	90	479	390	959
Sunday, April 27	183	—	465	648
Monday, April 28	463	1010	1013	2491
Tuesday, April 29	490	1049	1064	2603
Wednesday, April 30	418	919	1015	2352
			Total	53,112

Occupancy:

April 7 - 1129
 April 14 - 1127
 April 21 - 1117
 April 28 - 1117

indicate to the management the quality of food served and if the portions served are fair.

Laundry Expense.

The food service department at Ferris Institute is the largest user of linens. Students must furnish their own bedding which means that the only laundry expense in the halls is for guests who pay a small fee for the privilege of staying overnight.

Laundry expense for the food services was determined by the number of employees requiring uniforms and the number of changes allowed per week. Towels and other supplies were estimated by comparing with other institutions serving like numbers of students in a unit.

At present, by referring to past records, near-accurate estimates can be made. As the unit grows, additions to the amount can be made. National percentage figures are available from various sources such as bulletins from the Association of College Housing Officers. Past records show Ferris Institute's laundry expense in feeding units runs approximately one and one-half per cent of the gross income for a year.

Telephone.

Each residence hall has telephone expense which is based on the rental of the switchboard and its extensions. This is a fixed fee pertaining to incoming calls only. Outgoing long distance calls are prohibited.

In the various administrative offices, an estimated dollar amount for long distance calls should be allowed for each department.

Utilities.

In the explanation of expense items, many institutions do not have metered devices by which to measure heat, light, and power. Thus, the only utility which can be budgeted with exact figures is that of gas consumed. This is metered by the utility company at the source of use.

An individual dormitory budget estimate for heating by steam from a central heating plant can be arrived at by the use of the formula on page 57, Table IV. Because of the cost involved, it was necessary to develop this formula to cost per student.

The term "degree day" in Table IV may be defined as follows: "This is a unit, based upon temperature difference and time, used in estimating fuel consumption and specifying nominal heating load of a building in winter. For any one day, when the mean temperature is less than 65°F, there exists as many degree days as there are Fahrenheit degrees difference in temperature between the mean temperature for the day and 65°F."¹

The total degree days, 7051, was based on experience covering eight years of records. This emphasizes the importance of records in determining degree days for a particular heating situation.

Budget estimates for steam-operated kitchen equipment now actually in use were developed from a formula located in the Heating, Ventilating, and Air Conditioning Guide for 1956. See Table V, page 58.

TABLE IV. YEARLY HEATING COST FOR RESIDENCE HALL "A"

The yearly heating cost for Residence Hall "A" can only be estimated by using the total degree days for 1956, which is assumed to be a normal year with a total of 7051 degree days.

The consumption factor by past experience was found to be 3.0 cubic feet per degree day per million cubic feet volume.

The following figures, using this information, estimate the heat cost on a thirty-six week basis:

470,000 cu. ft. space
 21.4 students
 3.0 consumption factor
 .77 per M.C.F. (gas charge)
 7051 degree days

7051
3
 21153
470
 11480710
84612

9,941,910 cu. ft. gas

9942
.77
 69594
69594
 77,655.34 yearly cost of heat

The total cost per student per week would be \$.87.

TABLE V. BUDGET ESTIMATES FOR STEAM-OPERATED KITCHEN EQUIPMENT

<u>3 Vegetable Kettles, 60 Gal.</u>		
20 lbs. per 5 gal size	= 720 lbs. per hr. for 8 hrs.	5,660 lbs. per 24 hrs.
<u>1 Pastry Kettle, 30 Gal.</u>		
20 lbs. per 5 gal size	= 120 lbs. per hr. for 2 hrs.	240 lbs. per 24 hrs.
<u>1 - 3 Tier Steamer</u>		
40 lbs. per hr. for 2 1/2 hrs. =		100 lbs. per 24 hrs.
<u>1 Dishwasher</u>		
60 lbs per hr. per tray (7 trays)	= 420 lbs. per hr. for 8 hrs.	<u>3,360 lbs. per 24 hrs.</u>
	Total	9,360 lbs. Steam per 24 hrs.

1 cu. ft. of gas = .8 of 1 lb. of steam
 9360 lbs. of steam = 10,530 cu. ft. of gas
 x .77 per M.C.F. (gas charge)
 = \$7.70 per day
 = \$1,940.40 per 36 weeks
 = \$.09 per week per student

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

2. The second part of the report is a detailed description of the study area. It includes information about the location of the study area, the population of the study area, and the characteristics of the study area. It also discusses the data sources used in the study.

3. The third part of the report is a detailed description of the study results. It includes information about the findings of the study, the conclusions drawn from the findings, and the implications of the findings. It also discusses the limitations of the study and the need for further research.

4. The fourth part of the report is a conclusion and recommendations. It summarizes the main findings of the study and provides recommendations for future research and policy. It also discusses the significance of the study and the contribution it has made to the field.

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

2. The second part of the report is a detailed description of the study area. It includes information about the location of the study area, the population of the study area, and the characteristics of the study area. It also discusses the data sources used in the study.

3. The third part of the report is a detailed description of the study results. It includes information about the findings of the study, the conclusions drawn from the findings, and the implications of the findings. It also discusses the limitations of the study and the need for further research.

4. The fourth part of the report is a conclusion and recommendations. It summarizes the main findings of the study and provides recommendations for future research and policy. It also discusses the significance of the study and the contribution it has made to the field.

Hot water consumption.

The hot water consumption for all Ferris dormitories and food service units was based on information taken from the 1956 edition of the American Heating, Ventilating, and Air Conditioning Guide, and compared with the Institute's daily records. A peak load was assumed from 4 p.m. to midnight. The two methods are very close for estimating purposes. The example in Table VI was based on the number of students for 1957-58.

Electricity.

The budget estimates for electricity to be used in dormitories and food service units was developed by: computing the number of watts to be used in a building, dividing the total number of watts by one thousand (1000 watts equals 1 kilowatt or KW), multiplying the KW by the number of hours used per day. This equals the kilowatt hours consumed: multiply the KW hours by the cost per KW hour, which is established by the utility company. This gives the cost per day. Following is a formula to compute the cost per day used in dormitories and food service units:

Lighting - The square foot times two divided by one thousand times the average hours in use times the prevailing rate.

Example: A room 20 feet square equals 400 square feet.

400 square feet times two (watts) divided by 1000 equals .8 KW
The use of two watts is a predetermined amount of wattage used per square foot as established by lighting engineers.

Time - - - Twelve hours per day for one year

.8 KW times 12 hours equals 9.6 KW hours

9.6 KW hours times \$.03 per KW hr. equals \$.288 or \$.29 per day

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

TABLE VI. HOT WATER CONSUMPTION IN DORMITORIES

Helen Ferris	279
Masselink Commons (boys)	146
Masselink Commons (girls)	202
Vandercook Hall	266
Carlisle Hall	344
	<u>1137</u> Students
	40 Gal. per person per 24 hrs.
	<u>45480</u> Gal. per 24 hrs.
	1.04 Consumption factor - cubic ft.
	<u>471920</u> of gas to heat 1 gal. of water
	<u>15180</u>
	<u>47,299.20</u> Cu. ft. gas

$$47,299 \div 1000 = 47$$

$$\begin{array}{r}
 47 \\
 .77 \text{ per M.C.F. (gas charge)} \\
 \hline
 329 \\
 329 \\
 \hline
 \$36.19 \text{ per 24 hrs. per 1137 students} \\
 365 \text{ days per year} \\
 \hline
 \$13,209.35
 \end{array}$$

The weekly breakdown on hot water used in dormitory rooms, figuring thirty-six weeks (three 12-week semesters) would be \$.32 per student per week.

To determine the electricity used in operating motors for refrigeration, air conditioning, etc., the following formula was used;

1. Total horsepower* of all motors dividend by 746 equals number of watts
2. Watts divided by 1000 equals KW
3. KW multiplied by the time used equals KW hours
4. KW hours times the rate equals total cost per day

*Note: One horsepower equals 746 watts.

Supplies (controlled and operating).

This expense is best estimated by referring to past experience and records. If the budget planner is for the first time preparing a budget, it would be best to compare with other institutions having similar facilities or to make as near accurate assumptions as possible. Ferris Institute now maintains accurate records of all supplies and each item must be requisitioned from a central storeroom where it is charged to the hall or food service unit in which it will be used.

Other expense.

Debt service, as established in the loan agreement, must be shown as an expense item. This is a predetermined amount and no estimating is needed here.

Insurance expense is rated on the amount of coverage desired. Buildings and furnishings are covered, but personal property is not usually carried by a state institution.

Miscellaneous general expense is many times a matter of administrative policy. However, within the author's experience, it has been found best to maintain a low estimate in this account as it may be misused to cover costs which should be charged to other accounts.

Uncollectable accounts.

Ferris Institute has been fortunate to date in controlling the amount of accounts not collected. This has been accomplished by maintaining strict adherence to the payment policies as established by the Board of Control. The contract, in part, states: "Penalty for late payment of the above charges will be imposed as follows: (a) A .41 per day accumulative late penalty fee will be charged for each day or partial day that school is in session after the final day of each payment. In exceptional cases, if arrangements are made with the Director of Residences prior to the final due date, the late penalty fee may be waived. (b) If delinquent room and board charges are not paid within seven school days after the final due date for each payment, the resident will have to vacate his room in the residence hall and discontinue eating in the food unit."² Allowances are estimated on the basis of one quarter of one per cent of the total gross income from housing and food service.

Grounds maintenance.

Two full-time grounds maintenance personnel are provided. This budget item will grow as the housing department grows and the needs become

apparent. Using past experience again as a criteria, funds have been designated and provision made for additional plants and shrubs. Street and parking maintenance funds are based on a percentage of the total cost to the college.

Reserves

Equipment maintenance.

A fixed percentage for equipment maintenance would be established in the Ferris budget. The amount should be based on previous records, making allowances for the age of the equipment.

Building maintenance.

An allowance of .02 per cubic foot has been made in estimating building maintenance costs. This cost is broken down proportionately between food service and housing.

FOOTNOTES

1. American Society of Heating, Ventilating, and Air Conditioning Guide, 1956, XXIV, (Baltimore, Maryland: Haverly Press, 1956), p. 3.
2. Housing Agreement Regular School Year, 1957-58, (Big Rapids, Michigan: Printing Arts Department, Ferris Institute, 1957), p. 1.

Chapter V

CONCLUSIONS AND RECOMMENDATIONS

The specific steps to be taken to initiate or improve budget practice depend on the needs of the organization. A searching self-examination in the light of known principles of budgeting should be the first step. Having identified the practices which most clearly abuse those principles, management can take appropriate steps. Courage and patience are needed to follow them. The author believes the following recommendations should be considered by management wishing to establish its budget practice on a sound basis.

Policies established for the Ferris Residence Hall Budget were designed to fit the needs of the program of that institution. Other institutions may find it desirable to establish policies other than those enumerated in Chapter III. However, the author recommends these policies be used in the budget planning. He believes they have a definite part in the over-all planning for future construction, the feasibility of operating a residence hall and food service program, and a means of evaluating management personnel. To implement the budget the planner must consult with the administration of the institution for approval and establishment of such policies as are deemed necessary to fit the needs of the particular situation.

The forms and procedures outlined for use at Ferris Institute in Chapter IV were established as those which would give the most information

to the administration of the residence hall program. The author further recommends the use of these forms and procedures because their detailed information allows management a firm control over the entire operation.

The objectives of a budget are: a means for setting standards of performance, for measuring actual results and for guiding management to satisfactory achievement. It means rejecting the use of budgets primarily as a pressure device to goad people into greater efforts. This is the most important step in attaining maximum benefit from a budget program.

A residence hall budget must be a definite part of the school's over-all planning. "The budget is not the plan; it is merely the statement of the plan in the language of figures."¹ The thinking of the organization must turn to basic planning, then the people involved prepare budgets to effectuate their plans.

The budget should be used as a permit for management to control its operations. First, the means of control must be established and then put into practice. In particular, this requires the manager of a department to establish his budget based on a complete understanding of the job. The administration may not be able to approve the amounts requested, but may reach agreement with the manager.

The budget planner should arrange for common sense accounting, which involves complete, simple, and prompt explanations. Extreme care should be devoted to seeing that no supervisor has in his budget any item over which he does not have control.

The budget system presented here was designed to successfully meet and solve the varied problems, large and small, which have confronted

the people guiding the expansion of housing and food service facilities at Ferris Institute. It is not assumed that this system of budgeting for residence halls and food service is superior, in detail or as a whole, to the systems of other universities and colleges, but the author does present it as a good, working system worthy of consideration by others striving to initiate or improve budgets for similar institutions.

FOOTNOTES

1. Peirce, James L., "The Budget Comes of Age," Readings in Cost Accounting, Budgeting, and Control, ed. William L. Thomas, (Cincinnati: South-Western Publishing Company, 1955), p. 142.

BIBLIOGRAPHY

- Adams, Bruno, "Build a Food Cost Control System," College and University Business. Vol. XXI, (No. 3): 52-54. September, 1956.
- American Society of Heating and Air Conditioning Engineers, Inc., Heating, Ventilating, Air Conditioning Guide. XXXIV, Baltimore, Maryland: Waverly Press, 1956.
- Brown, L. L., "Physical Plant Budgets," College and University Business. Vol. XXI, (No. 3): 30-31. September, 1956.
- Building for Tomorrow through Self-Liquidating Projects. Michigan State Board of Education. Lansing, Michigan. 1955.
- Ferris Institute School Bulletin. Vol. 33, (No. 6): Big Rapids, Michigan. Printing Arts Department, Ferris Institute. January, 1956.
- Financial Reports for Colleges and Universities. Compiled by the National Committee on Standard Reports for Institutions of Higher Education, Fourth Impression, Chicago: The University of Chicago Press, 1945.
- Housing Agreement Regular School Year, 1957-58. Big Rapids, Michigan. Printing Arts Department, Ferris Institute. 1957.
- Hungate, Thad L., Finance in Educational Management of Colleges and Universities. New York: Bureau of Publication, Teachers College, Columbia University, 1954.
- McVey, Frank L. and Hughes, Raymond M., Problems of College and University Administration. Ames, Iowa: Iowa State College Press, 1952.
- Morey, Lloyd, University and College Accounting. New York: John Wiley and Sons, Inc., 1930.
- Noble, Howard S., Accounting Principles. Fourth Edition, Cincinnati: South-Western Publishing Company, 1945.
- Peirce, James L., "The Budget Comes of Age," Readings in Cost Accounting, Budgeting, and Control. ed. William S. Thomas, Cincinnati: South-Western Publishing Company, 1955.
- Reinier, E. J. and Stern, W. T., "How to Construct a Labor Control Budget," Part Four, Institutions. Vol. XXXVIII, (No. 6): 102-104. June, 1954.
- Rehder, T. M., "Building the Food Service Budget," College and University Business. Vol. XXII, (No. 3): 53-56. March, 1957.

The first part of the report deals with the general situation of the country and the progress of the work.

The second part of the report deals with the results of the work and the progress of the work.

The third part of the report deals with the results of the work and the progress of the work.

The fourth part of the report deals with the results of the work and the progress of the work.

The fifth part of the report deals with the results of the work and the progress of the work.

The sixth part of the report deals with the results of the work and the progress of the work.

The seventh part of the report deals with the results of the work and the progress of the work.

The eighth part of the report deals with the results of the work and the progress of the work.

The ninth part of the report deals with the results of the work and the progress of the work.

The tenth part of the report deals with the results of the work and the progress of the work.

The eleventh part of the report deals with the results of the work and the progress of the work.

The twelfth part of the report deals with the results of the work and the progress of the work.

The thirteenth part of the report deals with the results of the work and the progress of the work.

- Riker, Harold C., Planning Functional College Housing. New York: Bureau of Publications, Teachers College, Columbia University, 1956.
- Russell, John Dale, The Finance of Higher Education. Revised Edition, Chicago: University of Chicago Press, 1954.
- Tenner, Irving, Municipal and Governmental Accounting. New York: Prentice-Hall, Inc., 1955.
- Webster's New Collegiate Dictionary. G. & C. Merriam Co., Cambridge, Mass.: The Riverside Press, 1956.
- Wild, Helen Louise, "A Comparison of Labor Hours and Labor Costs in Two Women's Residence Halls." Unpublished M.S. thesis. East Lansing, Mich., Department of Institution Administration, Michigan State University. 1955.
- Williams, Kenneth P., The Mathematical Theory of Finance. New York: The MacMillan Co., 1935.

APPENDICES

APPENDIX A. DISTRIBUTION OF ANNUAL BUDGET BY CALENDAR MONTHS

Calendar Analysis of Rental Spaces

	Month	Student Occupancy		Available for Conference Use	
		Period	No. of Days	Period	No. of Days
Summer	July	1 - 31	31		
	August	1 - 20	20	21 - 31	11
Academic Year	September	19 - 30	12	1 - 18	18
	October	1 - 31	31		
	November	1 - 24		25 - 27	3
		28 - 30	27		
	December	1 - 14	14	15 - 31	17
	January	2 - 31	30	1	1
	February	1 - 28	28		
	March	1 - 23	26	24 - 28	5
	April	1 - 30	30		
	May	1 - 31	31		
	June	1 - 17	17	18 - 19	2
Summer		20 - 30	11		

Note: These figures were based upon the year 1957-58 at Ferris Institute and serve to illustrate the use of this form.



Calendar Analysis of Food Service Income

	Month	Student Income	
		Period	No. of Days
Summer	July	1 - 31	31
	August	1 - 20	20
Academic Year	September	27 - 30	4
	October	1 - 31	31
	November	1 - 24	27
		28 - 30	
	December	1 - 14	14
	January	6 - 31	26
	February	1 - 28	28
	March	1 - 23	23
	April	4 - 30	27
	May	1 - 31	31
Summer	June	1 - 17	17
		23 - 30	8

Computation of Daily Income From Students

I. Housing

A. Academic year

Housing rate x per cent of occupancy = net rate after vacancy loss
 Net rate x 350 = total budgeted income from housing for the academic year

Total budgeted income
Days of housing in the academic year = Income per day

$$\begin{aligned} \$300 \times .95 &= \$285.00 \\ \$285 \times 350 &= \$99,750 \\ \underline{99,750} &= \$405.48 \text{ Income per day} \\ 246 & \end{aligned}$$

B. Summer session

Housing rate x per cent of occupancy = net rate after vacancy loss
 Net rate x 350 = Total budgeted income from housing for the academic year

Total budgeted income
Days of housing in summer session = Income per day

$$\begin{aligned} \$110 \times .80 &= \$88 \\ \$88 \times 350 &= \$30,800 \\ \underline{\$30,800} &= \$338.71 \text{ Income per day} \\ 62 & \end{aligned}$$

II. Food Service (use same procedure as for housing)

A. Academic year

B. Summer session

Budget Apportionment of Income from Students by the Calendar Month

Month	No. of Income Days	Day Rate	Income
Academic Year			
Housing			
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			
			Total _____
Food Service			
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			
			Total _____
Summer Session			
Housing			
June			
July			
August			
			Total _____
Food Service			
June			
July			
August			
			Total _____

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Guest Sales

Apportion by the month using the days of operation and the average income per day of operation as a basis.

Month	Day Rate
Housing	
July	
August	
September	
October	
November	
December	
January	
February	
March	
April	
May	
June	
	Total
Food Service	
July	
August	
September	
October	
November	
December	
January	
February	
March	
April	
May	
June	
	Total

• 1

• 2

• 3

• 4

• 5

• 6

• 7

Employee Meals

Apportion on basis of average daily sales and days of food service operation.

$$\frac{\text{Total Sales, Academic Year}}{\text{Days of Food Operation - Academic Year}} = \text{Day Rate Academic Year}$$

$$\frac{\text{Total Sales, Summer Session}}{\text{Days of Food Operation - Summer Session}} = \text{Day Rate Summer Session}$$

Month	Days of Operation	Day Rate	Amount
July			
August			
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			

.....

.....

.....

.....

.....

.....

.....

Conferences

The calendar analysis of rental spaces shows the following periods available for conference housing.

Month	Period	Days	Income
August	21 - 31	11	
September	16 - 18	3	
November	25 - 27	3	
December	30 - 31	2	
January	1	1	
March	24 - 28	5	
June	18 - 19	<u>2</u>	
Total		27	<u>\$</u>

In the absence of specific conference reservations assume an equal distribution of income on the basis of the days available for conference use excepting no income should be scheduled from September 1 - 15 or December 15 - 29 when it is anticipated that food service lay-offs will occur.

THEORY

The first part of the paper discusses the theoretical background of the study, focusing on the relationship between the variables under investigation.

The second part of the paper presents the methodology used in the study, including the data collection process and the statistical analysis techniques.

The third part of the paper discusses the results of the study, highlighting the main findings and their implications for the field of research.

The fourth part of the paper concludes the study, summarizing the key points and suggesting areas for future research.

The fifth part of the paper provides a detailed discussion of the limitations of the study and the potential biases that may have influenced the results.

Forfeited Deposits

Assume:

6 at the opening of each quarter during the academic year and
2 at the opening of the Summer Session.

Month	Number	Amount
September		
January		
March		
June		
		<hr/>
		Total \$

Dean of Students' Budget

Divide the funds transferred for counselor's salaries on the basis of
average daily payment for days of housing in each month.

Month	Days of Housing	Day Rate	Amount
July			
August			
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			

.....

•

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Co.

Miscellaneous Income

Allocate 1/12 to each calendar month.

Administrative Expense

Allocate 1/12 to each calendar month.

Monthly charge - Food Service

Monthly charge - Housing

Halls Administration

Allocate 1/12 to each calendar month.

Monthly charge - Food Service

Monthly charge - Housing

Food Service

Allocate on basis of days of food service.

Month	Days of Food Service	Day Rate	Amount
July			
August			
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			

81.

Housing

Allocate wages for student desk clerks on basis of days of housing.

Allocate salaries for full-time help 1/12 to each calendar month.

Month	Days of Housing	Day Rate	Amount Student Help	Amount Permanent Help	Total
July					
August					
September					
October					
November					
December					
January					
February					
March					
April					
May					
June					

Social and Educational Budget

Charge 1/12 of \$300 or \$25 to each calendar month.

Office Expense

Charge 1/12 of total to each calendar month.

Food Service	1/12 of \$100 = \$8.33	Monthly charge
Housing	1/12 of \$450 = \$37.50	Monthly charge

Salaries and Wages

Food Service:

Student Employees - Allocate on day rate basis for number of days in food service schedule.

Month	Days of Food Operation	Day Rate	Amount
July			
August			
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			
			Total \$ _____

Full-time food preparation employees - Allocate on basis of 11 months operation - 1/2 month charges to September to December

Month	Amount
July	
August	
September	
October	
November	
December	
January	
February	
March	
April	
May	
June	
Total \$	

•

.....

..

.....

.....

.....

.....

.....

.....

.....

Salaries and Wages (continued)

Food Service (continued):

Custodial Employees - Allocate 1/12 to each month.

Monthly charge \$ _____

Housing:

Custodial Employees - Allocate 1/12 to each month.

Monthly charge \$ _____

84.

Subsistence

Allocate on basis of food service days.

Month	Days of Food Operation	Day Rate	Amount
July			
August			
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			
Total			\$

Raw Food Cost

Allocate on basis of food service days.

A. Student Tenants

	Month	Days of Food Operation	Day Rate	Amount
Summer	{ July August			
Academic Year	{ September October November December January February March April May June			
Summer	June			
Total				\$ _____

B. Student Employees

	Month	Days of Food Operation	Day Rate	Amount
Summer	{ July August			
Academic Year	{ September October November December January February March April May June			
Summer	June			
Total				\$ _____

New Food Cost (continued)

C. Guest Sales

(Apportion by the month using the days of food service operation and the average cost per day of operation as a basis.)

Month	Days of Food Operation	Day Rate	Amount
July			
August			
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			
			Total <u>↓</u>

D. Conference Meals

(Apply cost figures to days of operation.)

Month	Period	Days	Amount
August	21 - 31	11	
September	15 - 18	4	
November	25 - 27	3	
December	29 - 31	3	
January	1	1	
March	24 - 28	5	
June	18 - 19	<u>2</u>	
		Total	<u>\$</u>



Laundry

Allocate 1/12 to each calendar month.

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Telephone

Allocate 1/12 to each calendar month.

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Utilities

Gas - Allocate 1/12 to each calendar month

\$ _____ Monthly charge

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Utilities (continued)

Electricity - Allocate annual cost on the basis of the following percentages.

Month	Percentage	Amount
July	5%	
August	3%	
September	5%	
October	12%	
November	13%	
December	7%	
January	15%	
February	14%	
March	8%	
April	7%	
May	6%	
June	<u>5%</u>	<u> </u>
Total	100%	\$

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Utilities (continued)

Steam - Allocate annual cost on the basis of the following percentages.

Month	Percentage	Amount
July	2%	
August	1%	
September	3%	
October	8%	
November	12%	
December	14%	
January	18%	
February	17%	
March	12%	
April	7%	
May	4%	
June	<u>2%</u>	<u> </u>
Total	100%	\$

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Water - Allocate annual cost 1/12 to each calendar month.

\$ _____ Monthly charge

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

(These costs will normally be broken down on the basis of past records of consumption with anticipated rates applied.)

Controlled Supplies

Allocate 1/12 of annual cost to each calendar month.

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Operating Supplies

Allocate 1/12 of annual cost to each calendar month.

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Debt Service

Allocate 1/12 of annual cost to each calendar month.

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Insurance

Allocate 1/12 of annual cost to each calendar month.

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Miscellaneous General Expense

Allocate 1/12 of annual cost to each calendar month.

_____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Uncollectable Accounts

Charge entire amount to Housing in June.

Grounds Maintenance

Allocate 1/12 of annual cost to each calendar month.

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Equipment Maintenance

Allocate 1/12 of annual cost to each calendar month.

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

Building Maintenance

Allocate 1/12 of annual cost to each calendar month.

\$ _____ Monthly charge to Food Service

\$ _____ Monthly charge to Housing

APPENDIX B. BUDGET FORMS

THE MASTER BUDGET

Residence Halls and Food Service

	Total	Food Service	Housing
<u>Income</u>			
1. Gross Rental Income			
2. Provision for Vacancy Loss			
Net Rental Income			
3. Guest Sales			
4. Employee Meals			
5. Conference Housing			
6. Forfeited Deposits			
7. Miscellaneous Income			
Total Income			
<u>Expenses</u>			
<u>Administration</u>			
8. Administrative			
9. Food Service Administrative			
10. Halls Administrative			
11. Social and Educational			
12. Office Expense			
Total Administrative			
<u>Operations</u>			
13. Salaries and Wages			
14. Subsistence			
15. Raw Food Costs			
16. Laundry			
17. Telephone			
18. Utilities			
19. Supplies (Controlled)			
20. Supplies (Operating)			
Total Operations			



.....

THE MASTER BUDGET (continued)

	Total	Food Service	Housing
<u>Other</u>			
21. Debt Service			
22. Insurance			
23. Miscellaneous General Expense			
24. Uncollectable Accounts			
25. Ground Maintenance			
Total Other			
<u>Reserves</u>			
26. Equipment Maintenance			
27. Building Maintenance			
Total Reserve			
Total Expenses			
Income over Expense			

Unit Budget
Residence Hall A

	Academic Year	Summer Sessions	Total
<u>Income</u>			
Gross Room Rental Income:			
Housing			
Gross Total			
Computation of Rental Income:			
1. Gross Rental Income			
Housing			
Gross Income			
2. Vacancy Loss			
3. Net Rental Income			
(Total gross income			
less vacancy loss)			
4. Guest Sales			
Housing Income:			
No. of sales x number of			
nights @ rate per night			
5. Conference Income			
Assumption based on commit-			
ments and past records			
Rates: \$ _____ per day			
6. Forfeited Deposits Income			
Assumption based on past			
experience			
7. Miscellaneous Income			
 Total Income			

Expense

Administration

8. Administrative
 - (Taken from an administration budget listing salaries, office expense, etc. for administrative personnel and then establishing a percentage figure for each unit)

Unit Budget: Residence Hall A (continued)

	Academic Year	Summer Sessions	Total
9. Food Service Administrative; not charged to Housing Unit.			
10. Halls Administrative			
Resident Advisor			
Relief Resident Advisor			
Resident Assistants (student)			
11. Social and Educational			
(Allocated as previously de-			
scribed and then establishing			
a percentage figure for each			
unit.)			
12. Office Expense			
(Allocated as previously de-			
scribed and then establishing			
a percentage figure for each			
unit.)			

Total Administration

Operations

- 13. Salaries and Wages
 - Operation
 - Custodial
 - Housekeepers
 - Student Janitors
 - Janitors
- 14. Subsistence
 - (Allocated as previously de-
 - scribed.)
- 15. Raw Food Costs: Not charged to
Housing Unit.
- 16. Laundry
 - (Allocated as previously de-
 - scribed.)
- 17. Telephone
 - (Allocated as previously de-
 - scribed.)
- 18. Utilities
 - (Allocated as previously de-
 - scribed.)

Unit Budget: Residence Hall A (continued)

	Academic Year	Summer Sessions	Total
19. Supplies (Controlled) (Allocated as previously de- scribed.)			
20. Supplies (Operating) (Allocated as previously de- scribed.)			
Total Operations			
Other			
21. Debt Service (Allocated as previously de- scribed.)			
22. Insurance (Allocated as previously de- scribed.)			
23. Miscellaneous General Expense (Allocated as previously de- scribed.)			
24. Uncollectable Accounts (Charged only once yearly.)			
25. Ground Maintenance (Allocated as previously de- scribed.)			
Total Other			
Total Expense			
Rooms Net Income			
Foods Net Income			
Total Net Income Hall A			

Unit Budget
Food Service

Central Dining Unit I for Halls A, B, and C

Academic Year	Summer Sessions	Total
------------------	--------------------	-------

Income

1. Gross Food Income
 (Total number of students of all
 residence halls times rate times
 number of weeks.)
2. Provision for Vacancy Loss
 Net Rental Income
3. Guest Sales
 Food Income
4. Employee Meals
 Regular Employees
 (Number of employees times the
 rate.)
 Student Employees
 (Number of student employees
 times student rate.)
5. Conference Income
 (Based on commitments and past
 records.)
6. Forfeited Deposits: Food Unit not
 credited.
7. Miscellaneous Income
 (Small items which do not logically
 come in any of the above classifica-
 tions.)

Total Income

Expense

Administration

8. Administrative
 (Allocated as previously described.)

Unit Budget: Food Service

	Academic Year	Summer Sessions	Total
9. Food Service Administrative (Total as previously described and then establishing a per- centage figure for each Food Unit.)			
10. Halls Administrative: Not charged to Food Unit.			
11. Social and Educational (Established policies differ among institutions. A sum may be al- located to cover costs of seasonal decorations used in dining rooms.)			
12. Office Expense (Allocated as previously described.)			
Operations			
13. Salaries and Wages			
Regular Employees			
Food Manager			
Assistant Food Manager			
Food Supervisor			
Cook I			
Cook II			
Food Service Worker I (Four)			
Food Service Worker II (Five)			
Baker I			
Baker II			
Baker III			
Janitor (two)			
Total Production Service			
Student Employees	Hours <u>Per Week</u>	Number <u>of Weeks</u>	<u>Rate</u> <u>Amount</u>
Kitchen Workers (Eight)			
Line Workers (Six)			
Dish Room (Six)			
Pots and Pans (Four)			
Runners (Two)			
Total Student Employees			

Total Salaries

Unit Budget: Food Service

	Academic Year	Summer Sessions	Total
14. Subsistence (Total amount charged to Em- ployee Meals.)			
15. Raw Food Costs (Amount per day allowed times number of days times number of persons to be fed.)			
16. Laundry (Based on past records.)			
17. Telephone (Based on experience.)			
18. Utilities Water Steam Electricity Gas Total Utilities			
19. Supplies (Controlled) (Allocated as previously de- scribed.)			
20. Supplies (Operating) (Allocated as previously de- scribed.)			
Other			
21. Debt Service (Allocated as previously de- scribed.)			
22. Insurance (Allocated as previously de- scribed.)			
23. Miscellaneous General Expense (Allocated as previously de- scribed.)			
24. Uncollectable Accounts (Charged only once yearly.)			
25. Ground Maintenance (Allocated as previously de- scribed.)			
Total Other Expenses			
Income Over Expenses			

Administrative Budget
for Residence Halls and Food Service
(Expense to be allocated to all Residence and Food Units)

Administration

- 1 Director of Residences and Food Services
- 1 Secretary
- 1 Bookkeeper
- 1 Bookkeeper
- 1 Bookkeeper
- 1 Bookkeeper
- Total Administration

Halls Administration

- (This expense allocated to Residence Halls only)
- 1 Manager
- 1 Secretary
- 1 Maintenance Foreman
- Total Halls Administration

Food Service Administration

- (This expense divided among Food Service Units only)
- 1 Director
- 1 Secretary
- Total Food Service Administration

Calendar Analysis - Fiscal Year

Summer Session 1957

June 22-23	Registration - Summer Session
June 24	Classes Begin
August 20	Second Summer Session Closes

Academic Year 1957-58

September 20-24	Registration - Fall Quarter
September 27	Classes Begin
November 25-28	Thanksgiving Recess
December 14	Fall Quarter Closes
January 3-5	Registration - Winter Quarter
January 6	Classes Begin
March 23	Winter Quarter Closes
March 30 - April 1	Registration - Spring Quarter
April 4	Classes Begin
June 17	Spring Quarter Closes

Summer Session 1958

June 21-22	Registration - Summer Session
June 23	Classes Begin
August 19	First Summer Session Closes

Operating Schedule

Assumptions

1. Housing will be supplied from the day preceeding the first day of registration through the last day of examinations for each quarter, excepting Thanksgiving vacation.
2. The periods between terms are not included in the housing contract and housing facilities may be rented to others during this time. The college will not require students to remove their belongings from rooms between terms during the academic year.
3. Food will be supplied from the first day of classes through the last day of examinations, excepting Thanksgiving vacation.

Housing

1. Fall Quarter From _____ Through _____ No. of days _____
2. Winter Quarter From _____ Through _____ No. of days _____
3. Spring Quarter From _____ Through _____ No. of days _____
4. Total days of housing, academic year _____
5. Summer Sessions (1957 From _____ Through _____ No. of days _____
(1958 From _____ Through _____ No. of days _____)
6. Total days of housing, Summer Sessions _____
7. Total days of housing, fiscal year _____

Food Service

8. Fall Quarter From _____ Through _____ No. of days _____
9. Winter Quarter From _____ Through _____ No. of days _____
10. Spring Quarter From _____ Through _____ No. of days _____
11. Total days of Food Service, academic year _____
12. Summer Sessions (1957 From _____ Through _____ No. of days _____
(1958 From _____ Through _____ No. of days _____)
13. Total days of Food Service, Summer session _____
14. Total days of Food Service, fiscal year _____

Rental Income Schedule

Assumptions

1. The capacity of the unit is _____.
2. The following rates will apply uniformly to all rental spaces:

Academic Year

Room Rate per quarter	Food Charge per quarter	Total per quarter	Total for Academic Year
--------------------------	----------------------------	----------------------	----------------------------

Summer Session

Room Rate per session	Food Charge per session	Total per session	Total for summer session
--------------------------	----------------------------	----------------------	-----------------------------

3. Vacancy loss during the academic year will be _____ per cent of the gross rental income and vacancy loss for the summer session will be _____ per cent of the gross rental income.

NOTE: The final computation for each budget account will be rounded off to the nearest dollar before the figure is placed in the budget summary which appears on page 92.

MICHIGAN STATE UNIV. LIBRARIES



31293013890177