

1973

## Annual Report 1972-73 and Membership Directory

Iowa Academy of Science

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**ANNUAL REPORT**  
**1972-73**

**and**

**Membership Directory**

**of the**

**The Iowa Academy of Science**

The objectives of the Iowa Academy of Science shall be the promotion of interest in the sciences, in scientific research, improvement of instruction in the sciences, the dissemination of scientific knowledge, and the recognition of high achievement in attaining these objectives in the State of Iowa.

-- from the Revised Constitution 1970

*Iowa Academy of Science, Inc.  
University of Northern Iowa  
Cedar Falls, Iowa 50613*

# OFFICERS, DIRECTORS, AND SECTION CHAIRMEN, 1972-73

## BOARD OF DIRECTORS

President	Arnold O. Haugen, Iowa State University
President-Elect	Robert E. Yager, University of Iowa
Past President	Stanley Wawzonek, University of Iowa
Treasurer	Harry T. Horner, Jr., Iowa State University
Editor	T. E. Rogers, Cornell College
Executive Secretary	Robert W. Hanson, University of Northern Iowa
	(73) Robert E. Buckles, University of Iowa
	(73) Edwin M. Vaughan, Bettendorf
	(74) Clifford L. Meints, Simpson College
	(74) Sylvan Runkel, Des Moines
	(75) Bernard L. Clausen, University of Northern Iowa
	(75) Rodney A. Rogers, Drake University

## SECTION CHAIRMEN:

Anthropology	James Boylan, 129 S. Capitol, Iowa City 52240 Phone: 319-353-5175
Botany	Jeffry Schabillon, Dept. of Botany University of Iowa, Iowa City 52242 Phone: 319-353-5053
Chemistry, Inorg. Anal., & Phys.	Warren T. Zemke, Dept. of Chemistry, Wartburg College, Waverly 50677 Phone: 319-352-1200, Ext. 367
Chemistry, Org. and Biological	Peter P. Wickham, Dept. of Chemistry, Coe College, Cedar Rapids 52403 Phone: 319-364-1511, Ext. 253
Conservation	Kenneth R. Russell, Coop. Wildlife Research Unit Science Hall, ISU, Ames 50010 Phone: 515-294-3056
Economics	Richard Pegnetter, Center for Labor & Management University of Iowa, Iowa City 52242 Phone: 319-353-4274
Engineering (Co-chairmen)	George Lance, Dept. of Mech. Engineering, University of Iowa, Iowa City 52242 Phone: 319-353-5638 John Even, Dept. of Industrial Engineering, Iowa State University, Ames 50010 Phone: 515-294-4056
Geology	Russell Campbell, RECON, Inc., Geological Resources Consultants, Iowa City 52240 Phone: 319-351-6760
Mathematics	Joseph Hoffert, Dept. of Mathematics Drake University, Des Moines 50311 Phone: 515-271-3147
Physics	William R. Savage, Dept. of Physics & Astronomy, University of Iowa, Iowa City 52242 Phone: 319-353-3601
Physiology	Russell R. Rulon, Dept. of Biology Luther College, Decorah 52101 Phone: 319-382-3621, Ext. 350
Psychology	Harold P. Bechtoldt, Dept. of Psychology, University of Iowa, Iowa City 52242 Phone: 319-353-5290
Science Teaching	Milbert Krohn, 506 - 20th Street, Spirit Lake 51306 Phone: 712-336-2312
Zoology	James L. Christiansen, Dept. of Biology, Drake University Phone: 515-271-2821

# *Contents*

	Page
Minutes of the Annual Business Meeting	4
Report of the Executive Secretary	10
Report of the Treasurer	21
Report of the Finance Committee	23
Report of the Membership Committee	25
Report of the Publications Committee	26
Report of the Recognition and Awards Committee	27
Report of the Social Implications Committee	28
Report of the Student Programs Committee	32
Report of the Librarian	35
Report of the Articulation Committee	36
Constitution, Bylaws, and Articles of Incorporation	37
Constitution	38
Bylaws	42
Restated Articles of Incorporation	50
Membership List	53
Emeritus Fellows	54
Life Fellows	55
Fellows	56
Associates	65
Student Associates	78

Leadership Directory	83
Officers	84
Directors	85
Section Chairmen	86
Editorial Board for Proceedings	89
Annual Meeting Committee	90
Election Committee	91
Finance Committee	92
Membership Committee	93
Publications Committee	94
Recognition and Awards Committee	95
Social Implications Committee	96
Student Programs Committee	97
Centennial Committee	98
Parish Farm Committee	99
Resolutions Committee	99
Public Relations Committee	100

## MINUTES OF THE ANNUAL BUSINESS MEETING

1:00 p.m., Gardner Lounge, Main Hall, Grinnell College, Grinnell, Iowa  
April 27, 1973

President Arnold O. Haugen presiding, with 119 members present.

1. The following reports were heard and accepted by voice vote:

a. Report of the Board of Directors - R. W. Hanson, Executive Secretary

The Board of Directors met at Grinnell College on October 20, 1972, for dinner and the fall meeting. The matters considered at that meeting included the following:

Review of cost and attendance figures for the 84th session of the Academy held at Iowa City April 28-29, 1972, viz. :

Relation of the Iowa chapter of the Mathematics Association of America to the mathematics section of the Academy. Subsequent polling of Academy members with mathematics interest indicated satisfaction with the arrangement of having the Iowa chapter of MAA meet as (or with) the Academy's mathematics section.

Decision that abstracts be printed and distributed to the entire membership prior to the meeting, using camera-ready copy provided by authors.

Recommendations from the Social Implications Committee concerning environmental education in Iowa brought up without resolution the question of how the Iowa Academy of Science relates to the Iowa Conservation Education Council. Concerning the matter of proposals for the development of part of the Academy farm property for outdoor education, the Board took the view that the Finance Committee should receive such proposals and carry them through.

The Finance Committee report included information on the continued development of the farm property -- the removal of fences, the conversion of the corn crib to hold shelled corn, the installation of a carved wood sign identifying the farm as an Academy property, the planting of trees, and improvements to the buildings. The need for volunteer labor to carry out some of these projects was again emphasized.

Funds were also approved for the Finance Committee to solicit endowments and bequests, and to develop support and interaction from industry by inviting representatives of about 25 top industries to attend the 85th session as guests.

Two nominations were received for the new Iowa Academy Award of Merit and recommended for approval to the Recognition and Awards Committee.

A new undergraduate section was approved upon recommendation of Norman C. Baenziger of the University of Iowa, although some philosophical differences were apparent within the Board concerning the segregation of research papers on this basis.

The regular spring meeting of the Board was held April 26 from 2:30-6:00 and 7:30 - 10:30 and approved reports and recommendations from all Standing Committees except the Publications Committee which had no report. Hanson reviewed briefly some of the highlights of these reports:

In connection with the work of the Annual Meeting Committee, the Board approved the continued practice of mailing programs to all members prior to the meeting, necessitating the typical early deadlines for the submission of titles and abstracts. The practice of collecting registration fees to help defray the cost of the meeting will be continued. The 86th session will be held at Upper Iowa College in Fayette, April 19-20, 1974. The Social Implications Committee has suggested a theme for at least a portion of the meeting, dealing with the social responsibilities of scientists.

The Report of the Finance Committee indicated vast improvement in income from the farm under Hertz Farm Management. There is a definite need to develop more interest in work on the farm on the part of individual members, perhaps an annual day on the farm as an outing for Academy members. The Board approved the sale of easement for additional right of way for the widening and black-topping of a county road that runs through the farm property. A conspicuous, attractive sign was put in place on the farm last fall.

Although no report came from the Publications Committee several matters have come up that will necessitate a meeting of that committee very soon.

The Board voted to proceed with the first two Iowa Academy Awards of Merit in spite of the absence of such a recommendation from the Recognition and Awards Committee.

The report of the Social Implications Committee was accepted with recognition that many programs with worthy objectives are difficult to initiate without outside funding. The committee was commended for its active interest in sponsoring programs that would bring science and the public closer together in Iowa. The soil erosion report from this committee a year ago has been published in the PROCEEDINGS. Three new programs have been under consideration by this committee: a



Scientist-in-Residence program, a Volunteer Science Consultant program, and a symposium on the social concerns of scientists is proposed for the 1974 meeting of the Academy.

The report of the Student Programs Committee indicated that extensive changes are occurring in the way that the Junior Academy operates. Included in the Academy-sponsored student programs schedule now are the UNI Science Symposium, the UI Science, Engineering and Humanities Symposium, field survey programs, and new regional efforts to promote more research projects by high school students.

All available AAAS research grant funds have been awarded. From this time on, applications for these funds will be accepted for consideration twice each year rather than on a first-come first-served basis as in the past.

The ad hoc committee on articulation has been dissolved at its own request with the view that other approaches may be better means of effective communication between the two-year and four-year colleges.

A special committee is being appointed by the new president to plan centennial activities for the 1975 meeting at Iowa State University.

A bill has been introduced in the Senate this year (S.F. 414) that would provide \$8000 per year to help cover publication expenses of the Academy. Discussion of this bill with legislators points up the necessity of better information dispersal about Academy activities.

The report of the Executive Secretary to the Board of Directors covered the year's accomplishments, particularly in relation to the Parish Farm, the progress made in getting the quarterly PROCEEDINGS on schedule, and the extensive improvements made in student programs coordination. The budget included in the executive secretary's report was adopted and is shown elsewhere.

Two resolutions were presented by the Resolution Committee for consideration by the Board. With minor modifications they were approved for presentation to the membership for consideration.

Three Bylaws revisions were approved by the Board for presentation to the membership. They are spelled out below.

b. Report of the Treasurer - H. T. Horner, Jr.

The printed report appears along with others in the Annual Report.

c. Report of the Membership Committee - Wm. Azbell.

Separate motions on each category of membership change were made

by Azbell, seconded, and carried. The names of several deceased members were read in memoriam. The complete report is included with others in the Annual Report.

d. Report of the Editor - Thomas E. Rogers

The Editor reported that excellent progress has been made in getting the quarterly PROCEEDINGS on schedule. During 1973 it is expected that four issues will be distributed. The main delay is the review process, relations with the University of Iowa Printing Service have been exemplary. Another associate editor for the social sciences (particularly economics and anthropology) is needed.

e. The Report of the Elections Committee was read by Karl E. Goellner, chairman. The results of the mail ballot were as follows:

President - elect:	Donald Huffman	308
	* George Knudson	344
Treasurer:	John McCurdy	199
	* Paul Rider	445
Directors:	Melvin Oliven	220
	* Ruth N. Siemer	330
	* Lois H. Tiffany	421
	Leland L. Wilson	316

Following the report of the Elections Committee President Haugen introduced the newly-elected officers and directors and recognized the retiring members of the Board (H. T. Horner, Jr., Stanley Wawzonek, Robert E. Buckles, and Edwin M. Vaughan).

2. New Business

a. The following Bylaws revisions were presented and passed unanimously by the members present:

Article VI - Committees

Section 2. Annual Meeting Committee

2a) This committee will be made up of the local arrangements chairman for the Annual Meeting just concluded, the local arrangements chairman for the forthcoming Annual Meeting, and four other Fellows who have preferably served as Section Chairmen, two of whom will be appointed each year to serve two year terms. One of the appointed Fellows should be from the institution to host the meeting two years hence.

2b) The chairman of the committee will be appointed by the President.

2c) The duties of the Annual Meeting Committee will be to develop general plans for future Annual Meetings and to consider invitations from potential host institutions. They will evaluate each Annual Meeting in terms of various measures of success no later than October 1 following the meeting and make recommendations for the general planning and format for the next two Annual Meetings. The Executive Secretary, the local arrangements chairman and the Section Chairmen will work closely together to implement the recommendations of the Annual Meeting Committee in planning each Annual Meeting.

## Article VI - Committees

### Section 9. Student Programs Committees

9a) The Student Programs Committee shall consist of six Fellows, one of whom is selected by the Science Teaching Section as its representative. The Director of the Iowa Junior Academy of Science shall be an ex-officio member. Each member of the committee shall serve a three-year term. Two members shall be appointed each year.

## Article XII - Finance

### Section 3. Dues

3d) Any Fellow in good standing may become a Life Fellow by making a dues payment of \$150.00 under terms set by the Board of Directors.

b. The following expressions of appreciation and resolutions were presented by Eugene Spaziani and were passed unanimously by the members present:

#### Expressions of Appreciation

The Iowa Academy of Science, assembled in its 85th annual session, April 27-28, 1973, wishes to express its appreciation to Professor Irving Fishman, Chairman of the Annual Meeting Committee, to members of the Committee and to Grinnell College for their outstanding accomplishments on arrangements; and to Prof. Robert Hanson for organizing the clearly successful program.

To Professor H. T. Horner, Jr., Treasurer of the Academy from 1968-1973, for his work as chairman of the Finance Committee in carrying out and promoting the development of the Parish Farm property as an income-producing asset as well as a model of sound environmental management.

### Resolution on Comprehensive State Mapping

Whereas, the members of the Iowa Academy of Science recognize the fundamental nature of topographical information and the general efficacy of maps drawn at the scale and accuracy of the U. S. Geological Survey -- National Map standards (1:24000 Scale 7 1/2-min Quadrangles).

and whereas they recognize the fact that only 38% of the state of Iowa is mapped at the above scale and accuracies:

Resolved, that the Governor and the various members of the 65th General assembly of the State of Iowa be urged to give their fullest support to the work of the State Map Advisory Council and the State Geologists so that Iowa can be completely mapped at the earliest feasible date.

It is further urged that the mapping of the State and subsequent revision of extant maps be accomplished as a program that results from a Comprehensive State Mapping Plan.

### Resolution on Radiation Protection

Whereas the members of the Iowa Academy of Science recognize that the use of radiation, from X-ray producing devices and radioactive materials, in the healing arts, industry and research is widespread, here to stay and rapidly growing, and whereas almost every person in Iowa comes into contact with some form of man-made radiation and whereas bills on radiation protection, repeatedly introduced in the Legislature, have not been acted upon,

therefore be it resolved, that the Iowa General Assembly be urged to consider legislation that organizes, implements and funds a comprehensive system of radiation regulation and inspection, thereby joining 48 other states which have such laws.

3. The Annual Business Meeting was adjourned at 2 p.m.

Respectfully submitted,

Robert W. Hanson, Executive Secretary

## REPORT OF THE EXECUTIVE SECRETARY

The history of Iowa Academy activity during 1972-73 is covered well in the newsletter (the IAS BULLETIN) and the reports of standing committees submitted to the Board of Directors and published later in the Annual Report. This report provides certain emphases to the various aspects of Academy operation and includes the budget for 1973-74 and contains the revision of some of the Bylaws to reduce some mechanical problems in committee appointments.

The 85th session of the Iowa Academy of Science at Grinnell College represented several months of planning by the Section Chairmen and the local arrangements committee at Grinnell. The planning for the meeting started on October 28, 1972, when most of the Section Chairmen met with the Grinnell committee to block out the program and initiate plans for joint sessions and symposia. I wish to express my appreciation for the efforts expended by all these individuals to make the 85th session a success. We are all especially grateful for the fine hospitality extended to the Academy by President Glenn Leggett of Grinnell College, and to Prof. I. Y. Fishman for the efficient manner in which he managed the local arrangements.

The following tables summarize most of the data for the 85th session held at Grinnell College, April 27-28, 1973:

Section Mailings\* and Papers Presented

<u>Section</u>	<u>Mailing Counts</u>	<u>Papers Presented</u>
Anthropology	0	5 1
Botany	278	22 19
Chemistry - C	230	11 5
Chemistry - D	123	7 7
Conservation	178	12 10
Economics	12	13 5
Engineering	41	7 13
Geology	158	6 13
Mathematics	84	6 5 + 1 inv
Physics	131	8 10
Physiology	116	12 13
Psychology	66	7 12
Science Teaching	490	12 19 + inv (?)
Zoology	316	23 9
Symposium on natural areas management		21
Joint physiology-psychology cons. geol		4 7 invited
Undergraduate section		14 12
		189

\*From the Academy office

Cell Biology

9

171  
9  
162

Section Attendance

<u>Chem Ed</u>	<u>Fri. 9-11</u>	<u>Fri. 2-4</u>	<u>Sat. A.M.</u>
<u>Cell Biol</u>		24	21
Anthropology	<del>25</del> -	X -	X -
Botany	24-40 -	35-40 19-34	26-28 20-30
Chemistry - C	35	45 25 (65)	X
Chemistry - D	25-30	16 25 (100)	X
Conservation	50-70	J 20-60 85-105	X 30-45
Economics	-27-29	28-31 12	22
Engineering	12 12	25 20-29	X
Geology	<del>23-28</del>	<del>18</del>	X 15-25
Mathematics	45-65 28	41-77 18-25	X
Physics	<del>X</del>	X 18	54-72 29-41
Physiology	25 20	<del>25-35</del> 17-27	<del>X</del>
Psychology	<del>14-16</del>	X 20-21	<del>X</del>
Science Teaching	55-65 52	60-80 30-39	X 25 (102)
Undergraduate	<del>X</del>	<del>X</del>	15-30 19-45
Zoology	18-23	15-20	12-17 18-20
<u>Joint Sessions</u>			
Chemistry C and D	X	3 p.m.: 130*	X
Physiology and Psyc.	X	21-34	X
Botany, Cons., Zool.	20-58	31-42	59-65

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TOTALS:	398-521	380-523*	188-234
		(not incl. 3 p.m. JS)	

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General Interest Sessions (Fri. 4 p.m.)

Chemistry	110
Science Education	80
EPA representative	40

General Session Attendance

Friday, 11 a.m.	400
1 p.m.	119
(Business session)	
8 p.m.	300

Registration and Meal Ticket Counts

77 non-members @ 1.50	115.50
70 non-members @ 3.00	210.00
53 members @ 1.50	79.50
285 members @ 3.00	855.00
485 registrations*	
TOTAL	\$ 1260.00

\*(Including by mail 128 @ 3.00 and 38 @ 1.50)

Luncheon attendance, including 9 guests	196
Banquet attendance including 30 guests	183

<u>Income</u>		<u>Expenses</u>	
Registration fees	\$ 1260.00	Food Service	\$ 1451.23
Display fee	30.00	Country Club mixer	55.00
Meal tickets sold	<u>1167.05</u>	Guest housing	8.00
TOTAL INCOME	2457.05	Guest mileage	22.00
TOTAL EXPENSE	<u>3093.21</u>	Phys. plant and aux.	323.94
NET COST	\$ 636.16	police	
		Telephone (Grinnell)	20.13
		Set up charges	16.20
		Grinnell College charges	<u>1896.50</u>
		Less Grinnell contrib.	400.00-
			<u>1496.50</u>
		Section expense &	<u>1596.71</u>
		programs	
		TOTAL EXPENSE	\$ 3093.21

### The Year in Review

Perhaps the most noteworthy events of the past year to emphasize here are (1) the vastly improved management of the Academy farm with consequent improved income, (2) the successful transition of the PROCEEDINGS to the quarterly format, and (3) the completely revised schedule and management of student programs under the Iowa Junior Academy of Science.

#### (1) The Academy Farm

The first of these is fully covered in the report of the Finance Committee, but special acknowledgment should be made of the efforts of Dr. Harry T. Horner, Jr., Treasurer of the Academy and chairman of the Finance Committee, to improve the farm as a model of sound agricultural practice, to establish long-range goals for its development as an educational resource for the state, and to improve the income available from this property through close contact with the manager and the tenant and through appeals to Academy members and others to contribute their time for work on the farm that would otherwise be very costly.

The Parish Farm was bequeathed to the Academy in 1960 under conditions that required the Academy not to sell it for at least 75 years. From 1960 until March 1971 the farm was leased for three-year periods on a per-acre basis to Nelson Sager. During those periods the net income per year never exceeded \$4,407.45 and the average was \$2,062.00.

In March, 1971 Hertz Farm Management of Nevada, Iowa, was engaged to manage the farm on a share-cropping basis, with the tenant on a one-year lease. Transfers from the farm management account during the years 1971 and 1972 were -0- and \$5867, respectively, and additional costs paid out of the Academy's general operating fund were \$1,205.27 and 501.64, respectively, those two years. But in 1973 there have been no additional payments out of the Academy's operating fund for the farm, and none are anticipated. The net income during calendar year 1972 was \$5,365, and already in 1973, \$7,300 has been transferred to the Academy from the farm management account. Additional transfers are anticipated before the end of 1973, giving us some reason for optimism about the general financial condition of the Academy.

In looking at these transferred amounts, it must be borne in mind that they are lower than the true net income from the farm by the amount spent on repairs and capital improvements, such amounts being largely non-recurring. The Finance Committee's report provides additional detail on farm income and expenditures.

## (2) The PROCEEDINGS

The second noteworthy event is the fact that Editor Thomas E. Rogers has brought the quarterly PROCEEDINGS into proper phase with the calendar and has built up an adequate backlog of manuscripts to keep the publication close to the schedule. The section editors are to be commended for their cooperation with the Editor in getting manuscripts back without undue delay.

It has only been since last year that the Academy has had the full burden of the cost of printing the PROCEEDINGS and the net cost has turned out to be somewhat less than anticipated. We receive approximately \$3,200 per calendar year for subscriptions to the PROCEEDINGS—\$1,700 from the Iowa State University Library for 425 @ \$4.00 (the price is discounted to compensate for storage and distribution costs of back issues) and the balance from about 100 subscriptions (@8.00 per volume, and sales of back sets and single issues totaling about \$457. A significant saving to the Academy is the fact that the Extension Division of the University of Iowa distributes the PROCEEDINGS from Iowa City at no cost to the Academy. Although printing costs are not entirely predictable, it appears that \$8,000 will cover them in a year of four issues. The net cost of the PROCEEDINGS, is then on the order of 4,800, not including the Editor's honorarium and expenses.

At this writing a bill, has been drawn up by Senator Ray Taylor of Steamboat Rock (S.F. 414) to provide \$8,000 per year for publication costs. It is not certain when the bill will be introduced but since a similar bill passed the House last session, its chances for passage appear good if it passes the Senate first. The cost of publishing the IAS BULLETIN and the IOWA SCIENCE TEACHERS JOURNAL, when added to the net cost of the PROCEEDINGS, brings the total net cost above that which would be covered by an \$8,000 appropriation from the Senate.



### (3) The Junior Academy Program

The Student Programs Committee report for 1972 outlined the "Tentative Model" of student programs in science in Iowa. Now, a year later, we find that some of the projected aspects of the model have been successfully implemented and the prospects for bringing the rest of the model into play appear very encouraging. These accomplishments deserve special acknowledgement because the Junior Academy activities are continuing at a healthy level in spite of the withdrawal of support from the National Science Foundation.

After several years as state director of the Iowa Junior Academy of Science, Frank Starr stepped aside last fall to spend his time on the field studies aspect of the Junior Academy program. The position of state director was taken by Edward L. Pizzini of the Science Education Center of the University of Iowa. By virtue of bringing many student programs in science under the Academy umbrella, including those that are sponsored by the University of Iowa and the University of Northern Iowa, there is now a coordinated program to inform all Iowa high school science teachers in grades 7-12 and their students of the opportunities available. The annual convention of the Junior Academy in conjunction with the Senior Academy's annual session is now a thing of the past, but in its place there is a special section of Junior Academy papers at the senior meeting and a program of awards and recognition at the beginning of the Friday evening general session. However, Junior Academy activities are spread throughout the year and an attempt will be made to regionalize the efforts to promote student research projects, the number of which having declined severely in the past five years. The number of teachers now involved in the IJAS program has increased greatly and will increase even more through the regionalization effort.

### (4) Membership Matters

The 84th session of the Academy, held in Iowa City in 1972, included 236 papers authored or co-authored by 349 individuals, 191 of whom were non-members. In the 83rd session there were 148 papers contributed by 219 individuals of whom 114 were non-members. This year the program for the 85th session included 192 papers contributed by 264 individuals, 106 of whom were non-members. This is a change from over 50% non-member contributors to about 40% this year. The requirement that the abstract be signed by an Academy member may have had this effect, although follow-up invitations to membership sent to non-member authors did not produce an appreciable number of new members.

The following table shows changes in section interest since 1970 in terms of counts of section mailings from the Academy office by section chairmen. Counts are missing for some sections that did not use mailings from the central office.

Section	Section Interests by Mailing Counts			1973
	1970	1971	1972	
H - Anthropology				
G - Botany	322	304	277	278
C - Chemistry	285	243	229	230
D - Chemistry	136	143	125	123
J - Conservation	183	186	183	178
K - Economics	-	-		12
M - Engineering	-	43	48	41
E - Geology	181	174	151	158
A - Mathematics	157			84
B - Physics	212	187	176	131
O - Physiology	96	107	107	116
I - Psychology	76		56	66
Q - Science Teaching	535	451	454	490
F - Zoology	392	362	317	316

The over-all membership trends are shown in the next table. Membership counts can only be interpreted as the number on the mailing list at a given time and in terms of dues collected and dues outstanding.

#### Membership Counts and Dues Collection Data

	<u>3/24/70</u>	<u>4/2/71</u>	<u>4/22/72</u>	<u>4/21/73</u>
Associates	976	828	711	679
Student Associates	218	307	191	196
Fellows	496	491	461	458
	<u>1690</u>	<u>1626</u>	<u>1363</u>	<u>1333</u>
In arrears	143	0	0	0
	<u>1547*</u>	<u>1626*</u>	<u>1363*</u>	<u>1333*</u>
Honorary Fellow	1	1	1	0
Life Fellows	16	19	18	18
Emeritus Fellows	74	62	68	68
	<u>91*</u>	<u>82*</u>	<u>87*</u>	<u>86*</u>
Totals*	1638*	1708*	1450*	1419*

1970 dues pd. by Apr. '70, <u>1275</u>	No. not pd., <u>415</u> (incl. 143 arrears 1969)
1971 dues pd. by Apr. '71, <u>1252</u>	No. not pd., <u>374</u> (none in arrears for '70)
1972 dues pd. by Apr. '72, <u>1092</u>	No. not pd., <u>271</u> (none in arrears for '71)
1973 dues pd. by Apr. '73, <u>1171</u>	No. not pd., <u>216</u> (none in arrears for '72)

We have not yet recouped the loss in membership suffered between 1971 and 1972. Recruitment of new members must be a steady effort just to replace the usual attrition of about 100 members in addition to improving the membership count by the 250 lost between '71 and '72.

### (5) The Financial Picture in 1973-74

The prospects for the passage of S.F. 414, a bill to provide \$8,000 per year of the biennium for publication costs, appear favorable at this writing. Last year H.F. 740 failed in the Senate after passing the House, so the approach this time is to tackle the Senate first. The improved financial condition of the State Treasury is a factor in our favor.

Improved farm income has offset the loss of dues income and the PROCEEDINGS are costing less than originally estimated. Efforts are being made in a serious way to get additional support for special projects from industry. A special program of hospitality and information-sharing was a part of the Finance Committee's efforts in this direction during the 85th session. Representatives of the Meredith Corporation, John Deere (Waterloo), Pioneer Hi-Bred, Collins Radio, and Sundstrand Hydro-Transmission were hosted by individual Academy members throughout the afternoon and evening on Friday, April 27. Any contributions forthcoming from these or other industries will undoubtedly be designated and are not included in the anticipated receipts section of the proposed budget. One state senator was a guest also -- Senator Lucas DeKoster, Chairman of the Senate Appropriations Committee. Reports from the Academy hosts to their guests were uniformly favorable.

The major differences in anticipated receipts in 1973-74 is increased farm income by about \$3,000 over the budget for the current year. There is no state appropriation anticipated in the budget figures and no marked increase in dues income. The total of planned expenditures is very close to that budgeted for the current year. The differences mainly reflect the experience of the current year but are adjusted in anticipation of rising costs of materials and services.

The Academy's budget does not reflect the contribution of time made by the University of Northern Iowa for the administration of the Academy. The Executive Secretary is employed full time as a full professor in the Department of Chemistry at UNI. An agreement with the UNI administration provides for part of his work load to be released for Academy work. The initial agreement has undergone some modification since its beginning in 1969 when it was intended to release 25% of a 47-week university assignment for Academy work. Changes in teaching assignments and other duties eventually shifted all of the released time to the academic year and supposedly amounted to one third of 36 weeks. Due to the nature of teaching assignments and staffing needs in the department, the released time is now down to 25% of a full time assignment during the nine months, with no corresponding reduction in the amount of Academy work. The honorarium paid to the Executive Secretary is considered compensation for work performed outside the instructional calendar and does not duplicate UNI salary paid for the released time.

(6) Proposed Budget FY 73-74  
 (Adopted by the Board of Directors, April 26, 1973)

<u>RECEIPTS</u>	<u>'72-3 Budget</u>	<u>Est'd Actual</u>	<u>Proposed '73-4</u>
Dues	12,300	11,863	12,000
Interest	300	706	750
Farm income (net)	8,000	9,200	11,000
Contributions (undesg.)	600	29	500
Sales and services	300	387	100
*Proceedings sales	3,000	3,168	3,200
*Journal sales	50	34	34
Misc.			
<b>TOTAL</b>	<b>24,550</b>	<b>25,876</b>	<b>27,584</b>
* (Publications income	3,050	3,202	3,234)
On hand 7/1/73 (est'd) (Gen. opr. fund only; checking & savings)		8,086	
Estimated receipts '73-74		27,584	
Available operating funds '73-74		35,670	
Estimated disbursements (see below)		26,390	
Estimated balance 6/30/74		9,280	
Reserve fund		3,925	
Total assets (est'd) 6/30/74		13,205	
Increase over 6/30/73 (est'd)		1,194	

EXPENDITURES

<u>Administration</u>	<u>'72-3 Budget</u>	<u>Est'd Actual</u>	<u>Proposed '73-4</u>
Clerical wages	4,500	3,572	4,000
Honorarium (ex. sec)	3,000	3,000	4,200
Printing	1,000	570	650
Office expense	550	931	550
Postage; shipping	2,200	1,144	1,200
Travel (ex. sec)	120	142	150
AAS delegate exp.	365	678	700
Board Expense	180	259	260
Committee expense	300	300	200
Assn. of Acads. of Sci.	80	75	75
<b>SUB-TOTAL</b>	<b>12,295</b>	<b>10,671</b>	<b>11,985</b>
<hr/>			
<u>Awards, Recognition, Promotion</u>			
Excell. in Teaching (net)	160	170	170
Student Programs (IJAS)	1,300	816	1,485
Iowa Sci. Teachers Section	750	765	700
<b>SUB-TOTAL</b>	<b>2,210</b>	<b>1,751</b>	<b>2,355</b>
<hr/>			
Annual Meeting (net)	400	724	900
<hr/>			
<u>Publications (not including distrib. expenses)</u>			
IAS Bulletin	1,050	1,191	1,300
Ia. Sci. Tchrs. Journal	750	1,420	850
Proceedings (incl. printing and editorial exp.)	9,500	7,884	9,000
<b>SUB-TOTAL</b>	<b>11,300</b>	<b>10,495</b>	<b>11,150</b>
<hr/>			
<b>TOTAL EXPENDITURES</b>	<b>26,205</b>	<b>23,644</b>	<b>26,390</b>

## (7) Bylaws revisions

On recommendation from the Board of Directors the following Bylaws revisions were presented to the membership at the annual business meeting and passed, becoming effective immediately:

### Article VI - Committees

#### Section 2. Annual Meeting Committee

2a) This committee will be made up of the local arrangements chairman for the Annual Meeting just concluded, the local arrangements chairman for the forthcoming Annual Meeting, and four other Fellows who have preferably served as Section Chairmen, two of whom will be appointed each year to serve two year terms. One of the appointed Fellows should be from the institution to host the meeting two years hence.

2b) The chairman of the committee will be appointed by the President.

2c) The duties of the Annual Meeting Committee will be to develop general plans for future Annual Meetings and to consider invitations from potential host institutions. They will evaluate each Annual Meeting in terms of various measures of success no later than October 1 following the meeting and make recommendations for the general planning and format for the next two Annual Meetings. The Executive Secretary, the local arrangements chairman and the Section Chairmen will work closely together to implement the recommendations of the Annual Meeting Committee in planning each Annual Meeting.

### Article VI - Committees

#### Section 9. Student Programs Committee

9a) The Student Programs Committee shall consist of six Fellows, one of whom is selected by the Science Teaching Section as its representative, and the Director of the Iowa Junior Academy of Science, ex-officio. Each member of the committee shall serve a three-year term. Two members shall be appointed each year.

### Article XII - Finance

#### Section 3. Dues

3d) Any Fellow in good standing may become a Life Fellow by making a payment of \$150.00 under terms set by the Board of Directors.

Two of these Bylaws revisions will facilitate the long range planning of annual meetings and the annual appointment of the Director of the Junior Academy. The third will hopefully make the Life Fellow option more attractive. Since the action to implement the lowered dues for Life Fellows, the Board of Directors has authorized payment of this amount in installments as mentioned in the newsletter and on the dues statement. Life Fellow dues become a permanent fund and only the income from them can be used for operating expenses.

Respectfully submitted,

Robert W. Hanson  
Executive Secretary

20) The chairman of the committee will be appointed by the President.

21) The duties of the Annual Meeting Committee will be to develop general plans for future Annual Meetings and to consider invitations for potential new institutions. They will evaluate applications in terms of various measures of success as later than October following the meeting and make a recommendation to the general planning and finance for the next two Annual Meetings. The Executive Secretary, the long-range chairman and the Section Chairman will work closely together to implement the recommendations of the Annual Meeting Committee in planning each Annual Meeting.

Article VI - Committee

Section 2. Student Program Committee

22) The Student Program Committee shall consist of 5 Fellows, one of whom is selected by the Science Teaching Section as its representative and the Director of the Iowa Junior Academy of Science as officer. Each member of the committee shall serve a three-year term. Members shall be appointed each year.

Article XII - Finance

23) Any Fellow desiring to make any payment of \$100.00 under terms set by the Board of Directors

## REPORT OF THE TREASURER

April 27, 1973

The following letter and transaction summary prepared by Don McCombs, Certified Public Accountant, are submitted as the report of audit through March 31, 1973.

Harry T. Horner, Jr.  
Treasurer

Board of Directors  
Iowa Academy of Science  
Cedar Falls, Iowa 50613

Gentlemen:

I have examined the accompanying Statements of Cash Receipts and Cash Disbursements of the IOWA ACADEMY OF SCIENCE for the Period April 1, 1972, to March 31, 1973. My examination was made in accordance with generally accepted auditing standards and included such tests of the accounting records and such other accounting procedures as I considered necessary in the circumstances. However, my examination did not cover the Farm Operation in Grundy County, nor is it reflected in this report. This report reflects only the funds administered by the Executive Secretary.

In my opinion, the accompanying Statements of Cash Receipts and Cash Disbursements fairly present the recorded cash transactions of the IOWA ACADEMY OF SCIENCE administered by the Executive Secretary for the period April 1, 1972, to March 31, 1973, which does not include the Farm Operation in Grundy County, Iowa.

Respectfully submitted,

*Don A McCombs*

DON A. MCCOMBS  
Certified Public Accountant

Dated: April 25, 1973  
At Cedar Falls, Iowa



IOWA ACADEMY OF SCIENCE  
Cedar Falls, Iowa

Summary of Cash Transactions  
For the Period April 1, 1972 to March 31, 1973

	<u>Checking Account</u>	<u>Savings Account</u>	<u>Savings Certificate</u>	<u>Total</u>
<u>CASH BALANCE - 4/1/72</u>	\$ 1,834.23	4,500.00	5,000.00	\$11,334.23
<u>ADD: RECEIPTS</u>	27,069.72			27,069.72
<u>LESS: DISBURSEMENTS</u>	( 24,900.17)			(24,900.17)
	\$ 4,003.78	4,500.00	5,000.00	\$13,503.78
<u>TRANSFERS</u>				
From Checking to Savings:				
10/20/72	( 700.00)	700.00		
1/26/73	( 2,000.00)	2,000.00		
<u>CASH BALANCE - 3/31/73</u>	<u>\$ 1,303.78</u>	<u>7,200.00</u>	<u>5,000.00</u>	<u>\$13,503.78</u>

## REPORT OF THE FINANCE COMMITTEE

April 14, 1973

The Finance Committee has divided its efforts this past year in two areas. The first has involved exploring ways to increase income and establish ties with Iowa industries and the second area is the Parish Farm.

The Committee has sent a letter to all Academy members, forty years of age and older, explaining some of the ongoing programs of the Academy and suggesting that each member consider supporting the Academy through estate planning. It is hoped that this avenue of approach will provide a means for Academy members to commit various kinds of gifts either in the near or distant future to the Academy. Gifts may be specifically designated or given to the general operating fund.

The status of Life Fellow membership in the Academy is being reconsidered by the committee. A change in the rules governing this membership may provide more benefits for a greater portion of the members. A recommendation will be presented to the Board.

The Committee has attempted to interest major Iowa industries in the Academy by inviting corporation presidents or their representatives to the annual meeting at Grinnell College. Letters were sent out to 68 corporations in March and early April. As of the writing of this report the response has been disappointing with only a handful of replies. The committee believes this association would be of benefit to both the Academy and corporations and therefore will continue its efforts in establishing this relationship.

The Parish Farm has been operated for the second year under the auspices of the Hertz Farm Management Service (Mr. Jim Freevert, manager) and the tenant Mr. Melvin Schildroth. During this past year many improvements have taken place, which have moved the Farm closer to the ultimate goal of -- a model farm encompassing the best farm and environmental conservation practices.

Last summer a native prairie, consisting of about 7 acres, was established north of the woodlot. Good weather helped the prairie get started. A list of plant species planted is part of the committee record. The woodlot was further cleaned up in preparation for new plantings.

Last fall several work crews helped convert the corn crib to hold shelled corn. It was completed just prior to corn harvest and holds 10-12 thousand bushels. At the same time, the IAS sign was put in place next to the road. It was provided by the Iowa Conservation Service. The southeast quarter of the 160 acres was also tilled out reducing a major soil erosion problem there.

This spring further improvements will be carried out involving further cleanup of woodlot, planting of 3000 seedlings, moving a honeysuckle hedge, and removing north-south fences along the road. The latter will be widened and paved during this summer or fall.

A summary of the anticipated Farm income and expenses for 1972-73 is listed below:

1972 - 73 (Jan. 28, 1972 to Jan. 24, 1973) IAS - Parish Farm  
Income & Expenses

IAS Gross Income (crops & house rent) \$13,418.10

IAS Expenses

Taxes/insurance/bank interest \$ 1950.55

Seed/fertilizers/etc. 3969.89

House utilities/repairs 15.45

Farm Improvements 3127.60

Management fees 1348.80

\$10,412.29

-10,412.29

IAS Net Income

3,005.81

Estimated Income (72 - 73)

Sealed Crops 6800.00

+6,800.00

Anticipated Net Income for 1972 - 1973

9,805.81

The Finance Committee has had no success this year in increasing the number of contributors to the Academy. This continues to be an area of real challenge. The 1972-73 members and contributors are:

Sustaining Membership

Iowa Chapter of College Surgeons (Senior Academy) \$150.00

Pioneer Hi-Bred Corn Co., Johnstone (Excellence  
in Teaching) 150.00

Individuals Contributing

4

29.00

\$ 329.00

Committee member, Donald DeLisle resigned March 13, 1973.

Recommendations will be submitted as a supplement to this report during the Annual Meeting at Grinnell, Iowa.

Respectfully submitted,

David Fagle

Harry T. Horner, Jr., Chairman

Robert L. Hulbary

R. Wm. Poulter

Paul E. Rider

H. L. Rundell

Edwin M. Vaughn

## REPORT OF THE MEMBERSHIP COMMITTEE

April 27, 1973

The state of Iowa was divided into districts and each district was headed by a member of the Membership Committee. A vigorous campaign for new members was conducted in each of the districts.

The Membership Committee has taken into consideration the recommendation of the Board to nominate the governor and the presidents of the three state universities to be Fellows of the Academy. The majority of the committee members were not in favor of this.

Several members of the committee think that the dues for a Life Fellow should be \$150 instead of \$200. The thinking was that we might get some members at \$150 as we are getting none at \$200. It would mean changing Article XII, Section 3d of the Bylaws. One member suggested that the \$150 be paid in three installments of \$50 each.

The Membership Committee has been aided in its work by the following subcommittee:

Marvin DeYoung  
Adrian M. Docken  
Robert W. Green

Robert W. Hanson  
H. V. Peterson  
Robert E. Yager

Nominated to transfer from Associate to Fellow:

Roy L. Buckrop  
Marvin DeYoung  
Mary Alice Ericson  
Robert A. Grassmick  
Robert E. Hansen  
Nels R. Lersten

Alan R. Orr  
H. V. Peterson  
Dixon L. Riggs  
Jeffrey Schabillon  
Wayne H. Scholtes  
Duane Toomsen

Nominated for new Fellows:

Thomas L. Dynneson  
David R. Griffith  
James G. Macmillan  
James J. O'Toole

Wayne L. Paulson  
Richard Pegnetter  
William L. Sharp

Nominated for Emeritus Fellow:

Marvin K. Fritz  
Lyle K. Henry  
Theodore L. Jahn  
J. W. Kercheval

G. Chester Leu  
R. Everett Romig  
Paul Selz

Deceased Members (IN MEMORIAM):

Arthur L. Bakke  
 R. E. Buchanan  
 Charles S. Gwynne  
 Mabel C. Williams Kemmerer  
 Jean L. Laffoon

Don Lewis  
 Alf W. Swensen  
 Emil Witschi

Respectfully submitted,

Membership Committee  
 William Azbell, Chairman  
 Robert W. Embree  
 Robert A. Embree  
 Robert R. Meijer  
 Clifford L. Meints  
 Melvin N. Oliven  
 Monroe S. Wechsler

REPORT OF THE PUBLICATIONS COMMITTEE

This committee did not meet during 1972-73.

## REPORT OF THE RECOGNITION AND AWARDS COMMITTEE

June 13, 1973

This committee met in the fall of 1972 to discuss modifications in the procedures used in securing nominations for the Excellence in Teaching awards and to develop a nomination form for the new Iowa Academy Award of Merit. The committee received a recommendation from the Board of Directors to consider two nominations for this award before the nomination procedure was finalized and did not act to recommend a recipient for the award in 1973, pending formalization of the nomination procedure. A nomination form is now available from the Academy office at UNI.

The following high school teachers were selected to receive the Excellence in Teaching awards in 1973 and were presented with citations at the annual banquet of the Academy at Grinnell College, April 27, 1973:

Biology

Mr. Kirk Brill  
Southeast Polk High School  
8325 N. E. University  
Runnells, Iowa 50237

Earth Science

Mr. Jerry Aldrich  
Alden Community High School  
Alden, Iowa 50006

Physics

Mr. Kennon Schaefer  
Mason City Senior High School  
1700 Fourth St. S.E.  
Mason City, Iowa 50401

Mathematics

Mr. Irwin Van Haften  
Garwin Community Schools  
Garwin, Iowa 50632

Chemistry

Mr. Harold Wengert  
Price Laboratory School  
Cedar Falls, Iowa 50613

Frank Starr, Chairman  
David McCalley  
Lynn Glass  
Thomas M. Scott  
David J. Roslien  
Donald M. Huffman  
Robert W. Hanson, Secretary pro-tem

## REPORT OF THE SOCIAL IMPLICATIONS COMMITTEE

April 26, 1973

The Social Implications Committee met twice in the course of the year on September 23rd and January 20th. Work was continued in the areas of:

- 1) Soil conservation and initiated in the areas of:
  - 2) Scientist-in-Residence;
  - 3) Science consultant program;
  - 4) a symposium on social concerns of scientists and several minor matters.

A brief summary of the activities of the committee on each topic will be given below.

### 1) Soil Conservation

Several attempts were made to get a wider publication of the "Landers Report" on Soil Erosion in Iowa. These have not been successful as of the moment.

The subcommittee for developing a symposium on soil erosion was formed in January by Frank Mendell. The subcommittee consists of Frank Mendell and Dick Wilcox, co-chairmen; Fred Higgenbottom, Frank Schaller, Roger Landers, and William Greiner. A meeting date has not been fixed, but the subcommittee is thinking of next fall as a suitable time. The committee on Social Implications hopes that the results of the symposium will serve as a basis for projection for legislators and administrators and encourage research in these fields where data is lacking.

- 2) The Scientist-in-Residence program (see IAS Bulletin Vol. 6, No. 5, Nov. 1972 and Vol. 7, No. 1) is getting nowhere fast. So far we have responses from five scientists and no service organizations. The Committee decided to wait until Spring and decide whether to abandon the program or try again.
- 3) The Science Volunteer Consultant program is being shaped up by Paul Smith. This program of Volunteer Science Consultants to Schools seeks to accomplish:
  1. The stimulation and improvement of science education in kindergarten through twelfth grade
  2. The stimulation of a greater awareness on the part of science teachers and researchers of each other's needs and potential contributions to an integrated kindergarten through college science education program.

The IAS seeks to serve as an information gathering and distributing agency leaving the initiative to make use of consultants to recipients of the information.

The information gathered here will be distributed to science teachers across the state. A proposal will be presented to the Board of Directors at the April meeting.

4) A symposium on social concerns of scientists:

This symposium would be aimed at the 1974 or 1975 meeting of the IAS. Focus of such a symposium could be on any combination of three topics:

- A. the role or non-role of scientists in governmental decision-making;
- B. the role of scientists in schools and colleges in forming images and attitudes;
- C. the importance of the participation of scientists within the grassroots political process. Paul Smith is working on this symposium and the committee hopes to make a recommendation at the April meeting.

The Committee also investigated in-service workshops, OE and NSF funding for committee activities.

Kenneth A. Christiansen, Chairman  
 Kenneth D. Carlander  
 Paul H. Joslin  
 Sr. C. Francis Clare Ladd  
 Ruth Siemer  
 Paul A. Smith

#### MINUTES OF THE SOCIAL IMPLICATIONS COMMITTEE

April 27, 1973

The Social Implications Committee of the IAS convened at luncheon at 12:30 p.m., at the Christiansen residence, Grinnell, Iowa, Friday, April 27, 1973.

Present were: Kenneth Christiansen, Chairman, Grinnell College  
 Paul Joslin, Drake University  
 Ruth Siemer, Coe College  
 Paul Smith, Coe College  
 Sr. Francis C. Ladd, Mt. St. Clare College

The following topics were discussed:

I. Symposium Plans for the IAS

After a brief discussion, the committee formulated their intention in the following statement: The Social Implications Committee of the IAS seeks to encourage the Academy to place a major emphasis on Scientists' Contributions to Public Decision-Making at an annual meeting, probably in April, 1974.



Paul Smith reported on correspondence he had from two possible speakers for such a meeting:

- 1) Detlov Bronk - The reply was dated 19 April 1973.  
Dr. Bronk is former president of the National Academy of Science, 1950-62; Chairman of the Board of National Science Foundation, 1956-64; a member of the President's Advisory Commission, 1956-73; recipient of 55 honorary degrees, among many more distinguished honors. He is now at Rockefeller University, New York City.
- 2) Edward E. David, Jr. - The reply was dated 16 February 1973.  
Dr. David is Executive Vice President of Research, Development and Planning for the U. S. Government. The Committee agreed that he would be considered a back-up speaker for Detlov Bronk.

If the stated intentions of this Committee meet with the approval of the Board of Directors, it is hoped that the sectional chairmen, program committee or other suitable body would encourage papers augmenting this theme.

## II. Scientist-Consultant Program

Discussion of the Scientist-Consultant Program followed. Paul Smith presented a working model of a means of listing categories (of achievement and expertise) for scientists to check, providing they are willing to partake in this program. This model met with the approval of the committee with only minor changes in wording. Paul Joslin will put together a final copy including these minor changes.

These data will be arranged in such a manner that a composite can be photocopied and sent to those seeking scientist consultants. Dr. R. W. Hanson consented to the use of his office as a clearing house for such information.

## III. Soil Conservation Symposium

Kenneth Christiansen announced that the Soil Conservation Symposium formerly planned for this spring (of minutes 1/20/73) had now been moved to autumn. Frank Mendell is the convening chairman; a committee has been appointed consisting of the following members:

Wm. Greiner, Director of Iowa Department of Soil Conservation  
 Fred Higginbottom, President Iowa Soil Conservation Society  
 Roger Landers, Professor of Botany and Plant Pathology, ISU  
 Dick Wilcox, Iowa Soil Conservancy District  
 Frank Schaller, Extension Agronomist, ISU

This symposium would proceed with joint sponsorship with the IAS.

IV. Scientist-in-Residence Program

Kenneth Christiansen reported that the Scientist-in-Residence Program (of minutes 1/20/73) would likely be dropped from lack of interest. He stated that every service organization in the state had been circularized with too few replies to make the program feasible.

V. Funding for the Social Implications Committee

Dropped, also, will be any request for funding for the Social Implications Committee (of minutes 1/20/73).

VI. Circulation of the Landers report

Paul Smith reported that he was in the process of preparing a summary of the Landers Report (of minutes 1/20/73) for publicity.

VII. Informal Discussion

a) The attention of the committee was called to the lack of publicity concerning the educational opportunities for teachers and pupils concerning scholarships, workshops, etc., credited or non-credited. Paul Joslin agreed to prepare a news release for local papers listing these. Kenneth Christiansen will then attempt to get these to the teachers via the press.

b) Members of the Committee expressed concern about elementary and high school teachers teaching subjects outside their fields of certification, particularly in high school physics.

There being no more new business to present to the committee, the meeting adjourned at 2:00. The committee expressed its thanks for the gracious hospitality of Dr. and Mrs. Christiansen.

Respectfully submitted,  
Sr. Francis C. Ladd

## REPORT OF THE STUDENT PROGRAMS COMMITTEE

The past year has been rather busy with a variety of different happenings. A number of the aspects of the proposed restructuring of the Iowa Junior Academy of Science have been implemented. One notable aspect concerned the involvement of the IJAS in the UNI Science Symposium and the U of I Iowa Junior Science, Engineering and Humanities Symposium. The top two students selected at the 1972 Academy meeting presented their papers to general sessions at the UNI Science Symposium in November and then, accompanied by Frank Starr, went to Washington, D.C. in December and presented their papers at the American Junior Academy of Science. Twelve student papers were presented at the U of I Symposium, ten of which were invited to present papers at Grinnell.

Edward Pizzini was appointed Acting Director of IJAS. Ed Pizzini, in his capacity with the Extension Division of the University of Iowa, is in a rather unique position to stimulate the development of the new coordinated plan of student programs reported in the 1972 Annual Report. Through the U of I Extension Division, he is provided with released time to direct IJAS activities and visitations as well as partial support for traveling expenses associated with student visitations, workshops, symposia and field programs.

Frank Starr, Director of IJAS Field Programs, has developed an exciting and worthwhile program for elementary, junior high and senior high students and their teachers. The field programs are listed below:

- Okoboji Science Survey (Senior High) - September, 1972
- Springbrook Winter Survey (Senior High) - February, 1973
- Springbrook Survey (Elementary) March, 1973
- Springbrook Survey (Junior High) - April, 1973
- Red Rock Survey (Senior High) - May, 1973
- Bloody Run Survey (Senior High) - May, 1973

The involvement of elementary and junior high students and teachers has added new dimension to the student programs and has been well received. This aspect coupled with the fact that the field programs are self-supporting has made them a very viable part of Student Programs.

A newsletter, Sigh Ants, has been initiated and distributed to some 2300 teachers throughout Iowa as well as to all student participants in various programs.

We have been running behind in the regionalization aspect of IJAS. Some of the monies requested in last year's budget were intended to prime the regional pumps. This will be one of the major focal points during the 1973-74 campaign. It is hoped that with greater regional participation the quality and quantity of student research can be increased, more students can be touched, a larger number and variety of field excursions can be conducted, community betterment campaigns can be initiated and communication between science prone students can be enhanced as well as communication with teachers and Academy members.

## Recommendations:

1. Appointment of Ed Pizzini as Director of Iowa Junior Academy according to IAS Constitution.
2. Approval of the proposed budget as follows:

1973-74 Student Programs Committee Budget

Meeting expenses of Student Programs Committee (Travel to two meetings at 10¢ a mile plus meals)	\$ 150.00
Meeting expenses of IJAS Committees	200.00
Science Education Advisory Council - two meetings per year (\$100)	
Student Advisory Committee - two meetings per year (\$100)	
(Some of these meetings relate to Project ASSIST, additional travel expenses will be requested from ASSIST funds)	
Regionalization of IJAS	800.00
Expenses involved in mailings, publicity, and regional symposia for high school students and their teachers. Not to be a permanent expenditure, funds intended to initiate self- supporting IJAS regional activities. \$50.00 for each of the 11 regions with a similar amount to be requested from Project ASSIST grant funds.	
Support of State-Wide Symposia	300.00
UNI Science Symposium (Fall) (\$200)	
U of I Junior Science, Engineering and Humanities Symposium (Spring) (\$100)	
(To be contributed to these programs for use as needed for operating expense especially clerical)	
Student Programs Newsletter	200.00
Preparation and mailing expense currently covered by Extension Division of University of Iowa with the exception of mailing labels provided by IAS office for addresses of 2500 science teachers in Iowa 4 times per year.	
IJAS Director's Expense	-0-
These expenses are supported by the University of Iowa Extension Division and the Science Education	

and include travel expenses and salary, since his responsibility as IJAS Director is combined with his work as Student Programs Coordinator in the Science Education Center.

Awards to Students		435.00
(a) Nominal awards and banquet expense for 10 students at the IAS meeting (formerly the Iowa Science Talent Search) (\$235)		
(b) Partial subsidy of travel expense of two students selected to represent the IJAS at the American Junior Academy of Science Meetings held in conjunction with AAAS meetings (\$200)		
Total Student Programs request from IAS	\$	2085.00
Less designated contributions		600.00
Iowa Chapter American College of Surgeons	\$	150
Other donors (anticipated)		450
Net request (not including expenses of chaperone to AJAS which is included under AAS delegate expense elsewhere). Note also that expenses of the Student Programs Committee were not part of the IJAS budget prior to this request.	\$	1485.00

#### Committee Members:

David McCalley  
 Robert Yager  
 William Sharp  
 Frank Starr  
 Henry Biere  
 Daryl Smith

REPORT OF THE LIBRARIAN  
of the  
DISTRIBUTION OF THE PROCEEDINGS OF  
THE IOWA ACADEMY OF SCIENCE  
1972

In November, 1971, after the Board of Directors of the Iowa Academy of Science had agreed to allow the Iowa State University Library to dispose of excess numbers of the PROCEEDINGS, the following scale of volumes to be retained for backsets was agreed to:

1 - 5 years	150 copies
5 - 15 years	75 copies
15 - 25 years	50 copies
25 years and older	25 copies

Before cutting back our stock to these figures, we arranged with the approval of the Board, for a special sale. Complete sets (less out-of-print volumes) were offered at \$25.00 plus postage and individual volumes at \$ .50 plus postage. The sale was in effect from January 3, 1972, to May 1, 1972. During this sale nine complete sets totaling \$274.58 were sold. During the year 176 miscellaneous volumes were sold totaling \$181.73. This figure includes both volumes sold at the special rate and regular backset issues.

The Library distributed copies on exchange as follows:

Library exchanges:

Domestic	39
Foreign	356
	395

The Library appreciates the establishment of the sliding scale for retention of back numbers of the PROCEEDINGS which are stored for the Academy. It has helped ease our storage space.

Warren B. Kuhn, Librarian  
Iowa Academy of Science

## REPORT OF THE AD HOC COMMITTEE ON THE ARTICULATION BETWEEN TWO- AND FOUR-YEAR COLLEGES

This committee met once during the year. In the report to the Board of Directors at that time it was emphasized that the most important factor in successful articulation was the exchange of information and ideas between the teachers in the 4-year colleges and the teachers in the 2-year colleges. The best efforts of this sort appeared to be at the level of the individual disciplines--that is biology teachers, chemistry teachers, physics teachers, etc. It was the consensus of the committee that wider efforts to accomplish this articulation were not being too successful.

The committee also discussed the role of the Academy with respect to the continued activities of retired scientists. It was recommended that the Board refer this subject to the Social Implications Committee.

Teachers of scientific subjects in the Vo-Tech programs in Community Colleges are not at present accommodated in the Academy. The committee considered this problem which was originally brought up at the April, 1972 Board Meeting. A member of the committee, John McCurdy, made an initial survey of such personnel at Marshalltown Community College where he teaches. He found over 50% quite receptive to the possibility of Academy membership. It would appear that following up these membership possibilities should be recommended to the Membership Committee.

Unless the scope of the present ad hoc committee is broadened by the Board of Directors, it would seem that its existence should be terminated. Its main reason for existing has been the encouragement of articulation, but this activity seems best to be limited to informal exchanges of information.

### Committee members:

Cameron L. Christensen  
John W. McCurdy  
Robert T. VandenBranden  
Robert W. Hanson (ex-officio)  
Robert E. Buckles (Chairman)





CONSTITUTION OF THE IOWA ACADEMY OF SCIENCE, INC.  
(Adopted 1970 and Amended 1972)

ARTICLE I - NAME

This organization shall be known as *The Iowa Academy of Science* and shall be incorporated under the laws of the State of Iowa.

ARTICLE II - OBJECTIVES

The objectives of the Iowa Academy of Science shall be the promotion of interest in the sciences, in scientific research, improvement of instruction in the sciences, the dissemination of scientific knowledge, and the recognition of high achievement in attaining these objectives in the State of Iowa.

ARTICLE III - MEMBERSHIP

Section 1. *Classes of Membership.* The membership shall consist of Emeritus Fellows, Life Fellows, Fellows, Associates, Student Associates, Corporate Members, and Institutional Members. No candidate for membership shall be excluded on the basis of sex, religion, race, color, or national origin.

1a. *Emeritus Fellows.* Fellows who are 60 or more years of age and who have been members in good standing for a total of 15 years and are retired (from their regular occupation) may request transfer to the status of Emeritus Fellow.

1b. *Life Fellows.* Any fellow in good standing may automatically become a Life Fellow by payment of the transfer fee as provided in the Bylaws.

1c. *Fellows.* Fellows shall be elected from persons actively engaged in research in science, or teaching science, or administration in science. They must be nominated by two members and the nomination must be <sup>received and</sup> approved by the Membership Committee. ~~Assent of three-fourths of the members present at an annual business meeting shall be necessary for election.~~   
 *and approved by the Board of Directors.*

1d. *Associates.* Persons interested in the progress of science may apply for Associate membership, even though they may not be actively engaged in scientific work.

1e. *Student Associates.* Bona fide students in institutions of higher learning may apply for membership as Student Associates. Their student status must be vouched for by a professor in the department of the institution in which they are enrolled.

1f. *Corporate and Institutional Members.* Corporate and Institutional Members shall be corporations or institutions which are interested in science and in support of the Academy. Each corporation or institution may designate one representative who shall have voting privileges in the Academy.

Section 2. *Privileges.* Fellows of all classes shall be eligible to hold offices of the Academy and shall have full voting privileges. Associates, Student Associates, and representatives designated by Corporate and Institutional Members shall be entitled to all privileges granted to Fellows except the holding of elective office.

#### ARTICLE IV - OFFICERS

Section 1. *President.* The President-elect shall succeed to the office of President at the adjournment of the next Annual Meeting following his election. He shall serve as President for a period of one year. He shall discharge the usual duties and have such powers as generally pertain to his office or as may be required by this Constitution or by the Bylaws, or by the Articles of Incorporation, or by the Board of Directors. In event of his resignation, absence, disability, or death, the duties of President shall be assumed for the remainder of the unexpired term by the President-elect. Should he be unavailable, the duties of the President shall be assumed for the remainder of the unexpired term by a Fellow, properly qualified, appointed by the Board of Directors.

Section 2. *President-Elect.* A President-elect shall be elected annually in accordance with the Bylaws; his term of office shall commence at the adjournment of the Annual Meeting. The President-elect shall become President at the adjournment of the Annual Meeting in the following year. He shall perform such duties and have such powers as required by this Constitution, or by the Bylaws, or by the Articles of Incorporation, or by the Board of Directors. In event of his resignation, absence, disability, or death, his duties shall be assumed for the remainder of the unexpired term by a Fellow, properly qualified, appointed by the Board of Directors.

Section 3. *Treasurer.* The Treasurer shall be elected annually in accordance with the Bylaws; his term of office shall commence on the first of July next following the date of his election. The Treasurer shall serve as the Chairman of the Finance Committee and shall be custodian of all non-operating funds and endowments of the Academy. He shall arrange for the audit of the general operating account that is in the custody of the Executive Secretary and shall prepare an annual financial statement of the Academy's assets. The Treasurer shall perform such other duties and have such powers as required by this Constitution, or by the Bylaws, or by the Articles of Incorporation, or by the Board of Directors. In event of his resignation, absence, disability, or death, his duties shall be assumed for the remainder of the unexpired term by a Fellow designated by the Board of Directors.

Section 4. *Executive Secretary.* The Executive Secretary shall be appointed by the Board of Directors at its Annual Meeting. His term of office shall commence on the first of July following his appointment. He shall be custodian of the operating funds of the Academy and shall collect all monies due the Academy. The Executive Secretary will perform such other duties and have such powers as required by this Constitution, or by the Bylaws, or by the Articles of Incorporation, or by the Board of Directors. In event of his resignation, absence, disability, or death, his duties shall be assumed for the balance of the unexpired term by a Fellow appointed by the Board of Directors.

Section 5. *Editor of the Proceedings.* The Editor of the *Proceedings* shall be appointed by the Board of Directors at its Annual Meeting. His term of office shall commence at the adjournment of the Annual Meeting of the Board of Directors. His duties, powers, and term of office shall be as required by this Constitution, or by the Bylaws, or by the Articles of Incorporation, or by the Board of Directors. In event of his resignation, absence, disability, or death, his duties shall be assumed for the remainder of the unexpired term by a Fellow, properly qualified, appointed by the Board of Directors.

#### ARTICLE V - BOARD OF DIRECTORS

Section 1. *Authority.* The authority to manage the affairs of the Academy shall be vested in the Board of Directors. The Board of Directors is empowered to engage the services of qualified individuals to assist in the proper execution of the activities of the Academy.

Section 2. *Membership.* The Board of Directors shall consist of twelve members, including the President, President-elect, the Treasurer, the most recent Past-president, the Editor of the *Proceedings*, the Executive Secretary, plus six additional Fellows to serve three year terms, two to be elected at each Annual Meeting of the Academy. None of the six elected Directors shall be chairmen of Standing Committees.

Section 3. In the event of the resignation, absence, disability, or death of a Director, the balance of his unexpired term shall be filled by a Fellow appointed by the remaining members of the Board of Directors.

#### ARTICLE VI - PROSCRIPTIONS

Section 1. The Academy shall be organized and operated exclusively for the advancement of scientific work and science-related educational activities in the State of Iowa.

Section 2. The Academy shall not be organized nor operated for profit, either to itself or to any officer of, member of, or substantial contributor to, the Academy. This shall not, however, prevent the Academy from engaging in all activities permitted to it by Article IV of the Articles of Incorporation.

Section 3. The Academy shall not pay compensation to any member, nor to any other individual, beyond that which is a reasonable salary or compensation for personal services actually rendered to the Academy.

Section 4. No substantial part of the activities of the Academy shall consist of dissemination of propaganda or the influencing of legislation; provided, however, that the Academy may make public factual information which provides background on issues directly concerned with conservation or scientific endeavors in the State of Iowa.

Section 5. The Academy shall not participate in, nor intervene in, any political campaign on behalf of any candidate for public office.

#### ARTICLE VII - AMENDMENTS

This Constitution may be amended at any Annual Meeting of the Academy by assent of two-thirds of the votes cast, provided that notice of the proposed amendment has been sent to the members at least one month previous to the meeting, and that any absent member may cast his vote by placing it in a sealed envelope and depositing it with the Executive Secretary in advance of the meeting.

BYLAWS OF THE IOWA ACADEMY OF SCIENCE  
Adopted 1970 and Amended 1972 and 1973

ARTICLE I - MEETINGS

Annual meetings of the Academy shall be held on or about the third Friday and Saturday of April, unless otherwise decided by the Board of Directors.

ARTICLE II - QUORUM

A quorum at the business session of the Annual Meeting shall consist of twenty-five members, of whom at least twenty shall be Fellows.

ARTICLE III - BOARD OF DIRECTORS

Section 1. The Board of Directors shall meet at least twice each year, once in a regular annual session in the spring of each year immediately preceding the Annual Meeting of the Academy, and once on a date set by the Executive Committee, normally in the fall of the year at a time and place designated by the President. Special meetings of the Board may be called by the President upon recommendation of the Executive Committee.

Section 2. The President of the Academy shall serve as the presiding officer of the Board of Directors. He may invite chairmen of Standing Committees, or other Academy members, individually to sit with the Board and to participate on a non-voting basis in the deliberations of the Board.

Section 3. The President, President-elect, Treasurer and Executive Secretary shall constitute an Executive Committee which shall be empowered to act for the Board on an interim basis when action is necessary between the meetings of the Board. Such actions shall be reported to the Board at its next meeting for its approval.

ARTICLE IV - EXECUTIVE SECRETARY

Section 1. *Duties.* The duties of the Executive Secretary shall be:

- 1a) to implement the policy decisions of the Board of Directors.
- 1b) to maintain the central office of the Academy as its place of business, to prepare federal and state income tax returns for the Academy, and to keep on file the letters of incorporation and postal permits.
- 1c) to receive and disburse money in the normal operation of Academy business, under the supervision of the Treasurer.

ld) to maintain an accurate and up-to-date list of members of the Academy and their dues records, with dates of their election to the different classes of membership, their sectional affiliations, and the date of their separation from the Academy.

le) to prepare the agenda of and keep records of the proceedings of the Executive Committee, the Board of Directors, and the Academy.

lf) to coordinate the activities of the various officers, committee chairmen, the Iowa Junior Academy of Science, and other Academy projects.

lg) to have charge of the preparation, printing, and mailing of circulars, blanks, notifications, and programs of meetings, etc.

lh) to act as editor of the *IAS Bulletin* and to handle subscription matters for the *Iowa Science Teachers Journal*.

li) to prepare an Annual Report and Membership List of the Academy.

lj) to assist the Finance Committee in the interaction between the Academy and any corporations or institutions desirous of encouraging scientific endeavors in Iowa, either by Corporate or Institutional Membership or by other projects.

lk) to serve as the representative of the Academy on the Council of the American Association for the Advancement of Science and at the meeting of the Association of Academies of Science held in conjunction with the AAAS annual meeting.

ll) to do all things within his power, as directed by the Board of Directors, to enhance and extend the effectiveness of the Academy.

Section 2. *Committee Membership.* The Executive Secretary shall be a member of the Executive Committee and an ex-officio non-voting member of all Standing Committees.

## ARTICLE V - EDITOR

Section 1. *Term of Office.* The Editor of the *Proceedings of the Iowa Academy of Science* shall be appointed by the Board of Directors for a four year term.

Section 2. *Duties.* The Editor shall supervise and edit the content of the *Proceedings of the Iowa Academy of Science* with the help of an Editorial Committee made up of Section Editors recommended by the sections and approved by the Board of Directors. The Editor shall be an ex-officio member of the Publications Committee.

## ARTICLE VI - COMMITTEES

Section 1. *Standing Committees.* The incoming President shall appoint Standing Committees, as named in the following sections, immediately at the close of the Annual Meeting. The responsibilities of each Standing Committee shall begin upon appointment.

Section 2. *Annual Meeting Committee.*

2a) This committee will be made up of the local arrangements chairman for the Annual Meeting just concluded, the local arrangements chairman for the forthcoming Annual Meeting, and four other Fellows who have preferably served as Section Chairmen, two of whom will be appointed each year to serve two year terms. One of the appointed Fellows should be from the institution to host the meeting two years hence.

2b) The chairman of the committee will be appointed by the President.

2c) The duties of the Annual Meeting Committee will be to develop general plans for future Annual Meetings and to consider invitations from potential host institutions. They will evaluate each Annual Meeting Meeting in terms of various measures of success no later than October 1 following the meeting and make recommendations for the general planning and format for the next two Annual Meetings. The Executive Secretary, the local arrangements chairman and the Section Chairmen will work closely together to implement the recommendations of the Annual Meeting Committee in planning each Annual Meeting.

Section 3. *Elections Committee.*

3a) The Elections Committee shall be made up of six Fellows each serving two year terms with three members being appointed each year.

3b) The chairman shall be designated by the President.

3c) The duties of the Elections Committee shall be to nominate candidates for the offices of President-elect, Treasurer, and Directors such that there is more than one candidate provided for each vacancy. The Committee shall gather biographical data on each candidate and prepare election materials to be distributed by mail from the central office at least 45 days prior to the Annual Meeting. Ballots shall be returned to the central office by mail and turned over to the Elections Committee for counting. The chairman of the Elections Committee shall report the result of the election at the Annual Meeting.

Section 4. *Finance Committee.*

4a) The Finance Committee shall be composed of the Treasurer and at least six Fellows appointed for three year terms with two appointed each year.

4b) The Treasurer shall serve as chairman.

4c) The duties of the Finance Committee shall be to solicit financial support in the form of Corporate and Institutional Memberships, contributions, grants, bequests, and endowments. It shall seek optimum return on Academy investments and income property.

Section 5. *Membership Committee.*

5a) The Membership Committee shall be made up of six Fellows appointed for three year terms with two members appointed each year.

5b) The chairman shall be designated by the President.

5c) The Membership Committee will annually conduct a membership drive to increase membership in the categories of Associate, Fellow, and Student Associate. It shall review nominations of new Fellows, applications for transfer from Associate to Fellow status, and requests for transfer to Emeritus status, and <sup>recomm</sup>move such approved actions <sup>to</sup> at the ~~Annual Meeting~~. It shall inform itself of deaths among members of the Academy and prepare obituaries annually of such members.

Section 6. *Publications Committee.*

6a) The Publications Committee shall consist of the Editor, ex-officio, and six other Fellows serving three year terms, two of the six being appointed each year.

6b) The chairman shall be designated by the President.

6c) Duties. Matters relating to all Academy publications, excepting programs, shall be referred to the Publications Committee by the Board of Directors. It shall report recommendations to the Board of Directors for action.

Section 7. *Recognition and Awards Committee.*

7a) The Recognition and Awards Committee shall consist of six Fellows each serving three year terms, two being appointed each year.

7b) The chairman shall be designated by the President.

7c) Duties. One member of this committee will act as the coordinator of the Excellence in Teaching Awards program; another member will act as the chairman of the AAAS Research Grants Committee. The committee as a whole will deal with matters relating to all recognition and awards programs of the Academy other than the Science Talent Search.

Section 8. *Social Implications Committee.*

8a) The Social Implications Committee shall consist of six Fellows appointed for three year terms, two being appointed each year.

8b) The chairman shall be designated by the President.

8c) Duties. Matters relating to the social and environmental implications of science and Academy activities shall be referred to this committee by the Board of Directors. The committee shall report recommendations to the Board of Directors for action.



### Section 9. *Student Programs Committee.*

9a) The Student Programs Committee shall consist of six Fellows, one of whom is selected by the Science Teaching Section as its representative. Each member of the committee shall serve a three-year term. Two members shall be appointed each year. The Director of the Iowa Junior Academy shall be an ex-officio member.

9b) The chairman shall be designated by the President.

9c) Duties. This committee shall support and supervise the activities of the Iowa Junior Academy of Science and the Iowa Science Talent Search. All matters relating to Academy programs for pre-college students shall be referred to this committee by the Board of Directors.

Section 10. *Temporary Committees.* The President may appoint temporary committees, of suitable size, at intervals as needs arise. The committees shall serve one year. Temporary committees may be reappointed annually. The President shall designate the chairman of each committee and shall specify duties for each committee, in writing, to the chairman.

## ARTICLE VII - SECTIONS

Section 1. *Formation of Sections.* Twenty-five or more persons may petition the Executive Secretary for the establishment of a new section. At the time of petitioning they shall suggest an appropriate name for the section. If the petition is favorably voted on by the Board of Directors, a temporary section chairman shall be designated by the President. New sections will be considered temporary for at least one year, at the discretion of the Board of Directors.

Section 2. *Privileges.* Each section shall elect a Chairman and a Vice-Chairman who are Fellows in the Academy. The Vice-Chairman shall become the Chairman in the following year. Each section is empowered to perfect its own organization as limited by the Constitution and By-laws of the Academy. The Section Chairman shall report its organization and names of newly elected officers to the Executive Secretary immediately following their election. Each section may propose to the Elections Committee for their consideration any Academy member for each office of the Academy to be filled in the next annual election.

Section 3. *Dissolution.* If a section does not prepare and conduct a sectional program at the Annual Meeting for two consecutive years it may be dissolved by the Board of Directors; or three-quarters of the membership of a section may petition the Executive Committee, at any time, for dissolution of the section.

## ARTICLE VIII - PUBLICATIONS

Section 1. *Official Organ.* The official organ of the Academy shall be the *Proceedings of the Iowa Academy of Science.*

la) The *Proceedings* shall include such scientific papers presented to the Academy by members as are offered and accepted for publication and such organizational and informational material as is deemed of importance and is not transmitted to members by other methods.

lb) Papers from non-members shall be accepted for publication at the discretion of the Editor.

lc) The *Proceedings* shall be sent to all members of the Academy who are in good standing.

Section 2. *Newsletter*. The *IAS Bulletin* shall be published periodically as the official newsletter of the Academy. The editor shall be the Executive Secretary.

Section 3. The *Iowa Science Teachers Journal* shall be published for members and special subscribers and shall be open to all persons interested in science education; preferential consideration shall be given to Academy members. The editor shall be appointed by the Board of Directors.

#### ARTICLE IX - LIBRARY

The Iowa State University Library shall be the depository for the *Proceedings of the Iowa Academy of Science*, and the Director of that library shall be requested to serve as Librarian of the Academy. The Librarian shall arrange for the distribution of the *Proceedings*, in cooperation with the Executive Secretary and will arrange for such library exchanges and sales as he deems appropriate. The Librarian may be invited to meet with the Board of Directors when matters pertaining to the library policies of the Academy are under consideration.

#### ARTICLE X - AAAS AFFILIATION

The Academy shall be affiliated with the American Association for the Advancement of Science, and shall be represented on the Council of that organization by the Executive Secretary, who shall also serve as a representative to the Association of Academies of Science held in conjunction with the AAAS annual meeting. The President shall designate a Fellow to represent the Academy in the absence of the Executive Secretary.

#### ARTICLE XI - IOWA JUNIOR ACADEMY OF SCIENCE

Section 1. The Academy shall maintain a Junior Academy as a means of discovering and fostering ability and interest in science among high school students, under the supervision of the Student Programs Committee.

Section 2. The Director of the Junior Academy shall be a Fellow in the Academy, appointed by the Board of Directors for a term of one year. He should succeed himself in office for a minimum of three years to provide continuity in Junior Academy affairs.

Section 3. The Junior Academy is empowered to perfect its own organization as limited by the Constitution and Bylaws of the Academy.

## ARTICLE XII - FINANCE

Section 1. The fiscal year of the Academy and its agencies shall be from July 1 through June 30 of the following year.

Section 2. *Budget.* The Executive Secretary, in consultation with Academy officers and agency heads concerned, shall prepare an annual asking-budget of income and expenditures for the new fiscal year and present it to the Board of Directors at their Annual Meeting for approval or amendment. The Executive Secretary is authorized to make only those expenditures provided for in the approved annual budget. Emergency-deficiency appropriations shall be approved by the Executive Committee.

Section 3. *Dues.*

3a) Emeritus Fellows shall be exempt from all fees.

3b) The Board of Directors shall be empowered to recommend annual dues. The establishment of such dues as are recommended by the Board of Directors shall be by majority vote of the members at an annual business session of the Academy.

3c) The dues shall be ten dollars per year for Fellows and Associates, and four dollars per year for Student Associates.

3d) Any Fellow in good standing may become a Life Fellow by making a dues payment of \$150 under terms set by the Board of Directors.

3e) Corporate and Institutional Membership shall be conferred upon a corporation or institution which pays minimum dues of \$50 annually.

3f) The membership year of the Academy shall coincide with the calendar year. New members joining after October 1 shall have their dues credited to the following membership year unless requested otherwise by the member.

3g) Non-payment of dues by December 31 shall constitute a request for withdrawal from the Academy.

Section 4. Basic financial policies of the Academy shall be formulated and investments for the Academy shall be made by the Board of Directors with the advice of the Finance Committee or other appropriate consultants.

Section 5. Funds from Life Fellowship payments shall be invested and only the interest therefrom shall be used for current expenses of the Academy.

Section 6. An annual audit of the financial records of the Academy shall be made by an auditing committee appointed by the President. The report of the Auditing Committee on the records of the calendar year just past shall be presented to the Board of Directors at its next Annual Meeting.

Section 7. The surety bond of the Treasurer and of the Executive Secretary shall be fixed and approved by the Board of Directors. The bond in each case shall be sufficient to cover the maximum amount of monies and negotiable securities in the custody of the Treasurer and Executive Secretary, respectively.

ARTICLE XIII - AMENDMENTS

These Bylaws may be amended at any Annual Meeting of the Academy by the recommendation of the Board of Directors and the affirmative vote of a majority of the Academy members present.

## RESTATED ARTICLES OF INCORPORATION

OF

## IOWA ACADEMY OF SCIENCE

Pursuant to the provisions of Section 39 of Chapter 504A, Code of Iowa (1966), the undersigned corporation adopts the following Restated Articles of Incorporation:

## ARTICLE I

The name of the corporation shall be Iowa Academy of Science.

## ARTICLE II

This corporation shall have perpetual existence unless sooner dissolved by a three-fourths (3/4) vote of all of the members thereof.

## ARTICLE III

The principal place of business of this corporation shall be located in Cedar Falls, Black Hawk County, Iowa. The registered office shall be located in the Science Building, University of Northern Iowa, Cedar Falls, Iowa, and the registered agent shall be Robert W. Hanson at the same address.

## ARTICLE IV

The object and purposes of this corporation shall be the encouragement of scientific work and to own and/or to lease sufficient and suitable real estate, buildings and structures; to accept gift, to purchase, sell, hold, manage, mortgage, convey, and otherwise acquire, rent, maintain and dispose of real estate and personal property as may be necessary and proper for the conduct and advancement of said scientific work; and to do any and all other things that are necessary and incident to the execution of the objects and purposes herein specified.

## ARTICLE V

The members of the corporation shall be all persons engaged or interested in the objects and purposes of the corporation who are duly elected to membership therein as provided in the Bylaws of this corporation.

## ARTICLE VI

The business affairs of the corporation shall be managed and controlled by the Board of Directors to be elected at the annual meeting in such manner and form as may be provided in the Bylaws.

## ARTICLE VII

Sec. 1. The officers of the corporation shall perform such duties and have such powers as generally appertain to such officers or as may be required of them by the Bylaws or by the Board of Directors hereof.

Sec. 2. Vacancies occurring in the Board of Directors shall be filled by vote of the remaining members of the Board of Directors until the ensuing annual meeting, when the vacancies shall be filled by vote of the members of the corporation.

## ARTICLE VIII

The annual meeting shall be held on such date and at such place as shall be fixed by the Board of Directors.

## ARTICLE IX

In all elections for members of the Board of Directors each member of the corporation shall be entitled to one vote.

## ARTICLE X

The private property of the members and officers of the corporation shall not be subject to the payment of the corporation debts in any amount or to any extent whatever.

## ARTICLE XI

The greatest amount of indebtedness to which the corporation may subject itself shall not exceed Three Thousand Dollars.

## ARTICLE XII

These articles may be changed, altered, or amended by a two-thirds vote at any annual meeting or special membership meeting provided notice is sent to each member in good standing at his last known address, at least one month prior to such meeting and that any absent member may cast his vote by placing it in a sealed envelope and depositing it with the Executive Secretary in advance of the meeting.

## ARTICLE XIII

These Restated Articles of Incorporation: (1) correctly set forth the provisions of the Articles of Incorporation of the corporation as heretofore and hereby amended; (2) have been duly adopted as required by law; and (3) supersede the original Articles of Incorporation of the corporation and all amendments thereto.

Dated the 31st day of October, 1970.

IOWA ACADEMY OF SCIENCE

/s/ By Herbert E. Hendriks  
President

/s/ By Robert W. Hanson  
Secretary

STATE OF IOWA )  
                  ) ss.  
COUNTY OF BLACK HAWK )

I, Robert W. Hanson, being first duly sworn on oath, depose and state that I am the Executive Secretary of IOWA ACADEMY OF SCIENCE, that I executed the foregoing Restated Articles of Incorporation as such officer of the corporation, and that the statements contained therein are true.

/s/ Robert W. Hanson

Subscribed and sworn to before me this 2 day of November, 1970.

/s/ Verna E. Kennedy  
Notary Public in and for said County.

# **Membership List**

(As of June 1, 1973)

This list should be accurate, but clerical errors are sometimes unavoidable. Addresses are not given so as to protect Academy mailing lists from misuse. Furthermore, addresses change to the extent of about 10% every two months. Up-to-date addresses will be supplied to authorized persons by the Executive Secretary.

The title "Dr." has been omitted from all names because we do not have consistent indication of all members who have the degree. The listing is alphabetical by member class.

Interpretation of the coding that follows the name: The coding indicates the first year of membership, the date of election to Fellow status (F), Emeritus status (E), or Life Fellow (L), and section interest. Example: (56F67L69FG) means that the member first joined as an Associate in 1956, was elected a Fellow in 1967, became a Life Fellow in 1969, and has indicated Zoology (F) and Botany (G) as section interests.

Sections of the Academy and code letters:

- H - Anthropology
- G - Botany
- C - Chemistry, Inorganic, Analytical,  
& Physical
- D - Chemistry, Organic & Biological
- J - Conservation
- K - Economics
- M - Engineering
- E - Geology
- A - Mathematics
- B - Physics
- O - Physiology
- I - Psychology
- Q - Science Teaching
- F - Zoology



## EMERITUS

- Aikman, J. M. (28F29E63GJ),  
Ames
- Allen, Edward S. (31F49E62A),  
Ames
- Arnold, L. K. (33xF60E65C),  
Ames
- Barnes, M. E. (32F39L47E63),  
Roseford, Ohio
- Beams, H. W. (F32E72F),  
Iowa City
- Berg, Clarence P. (F31E69C),  
Iowa City
- Biestner, H. E. (F38E63I),  
Cedar Rapids
- Burk, Myrle M. (26F29E67GJ),  
Waterloo
- Chehak, Milo A. (35F61E72D),  
Cedar Rapids
- Chittenden, E. W. (F20E57A),  
Newark, Del.
- Conkwright, N. B. (40F48E66A),  
Iowa City
- Cornog, Jacob (23F24E63C),  
Iowa City
- Cox, Benjamin B. (22F23E66E),  
Chesswick, Pa.
- Crosthwait, Jr., David N. (35E63BC),  
Michigan City, Inc.
- Crozier, William D. (27F32E69B),  
Socorro, N. M.
- Culbertson, James B. (22F28E62D),  
Carneys Point, N. J.
- Daniels, Marian E. (30F41E66A),  
Ames
- Davis, Watson M. (44F57E72A),  
Mt. Vernon
- Dodd, L. E. (14F18E59AB),  
Port Angeles, Wash.
- Englehorn, Alfred J. (30F45E68EJ),  
Ames
- Fritz, Martin F. (30F33E73I),  
Ames
- Gaessler, William (16F18E59CD),  
Ames
- Geiger, Sr. M. Joseph T,  
(37F57E72FGI), Chicago, Ill.
- Geiser, S. W. (09F20E60FG),  
Dallas, Texas
- Giese, Henry (29F60E63B),  
Ames
- Gilkey, H. J. (39F56E63EJ),  
Ames
- Gilman, Henry (20F22E63C),  
Ames
- Gouwens, Cornelius (21F22E60A),  
Ames
- Hammer, A. J. (35F61E69BCE),  
Bowling Green, Ohio
- Helmick, P. S. (15F20E64B),  
Des Moines
- Henry, Lyle K. (32F37E73),  
Sioux City
- Hissong, R. D. (31F47E63EFG),  
Sioux City
- Hufferd, Margery Simpson (18F22E72B),  
Orlando, Fla.
- Jahn, Theodore L. (35F49E73),  
Los Angeles, Calif.
- Jones, David T. (26F30L39E68F),  
Vinton
- Keck, Warren N. (23F49E69FG),  
Keosauqua
- Kercheval, James W. (31F32E73QD),  
Cedar Falls
- Knight, Harry H. (25F26E60FO),  
Ames
- Lantz, Cyrus W. (22F24E62G),  
Cedar Falls
- Leu, G. Chester (F46E73B),  
Pella
- Lierle, Dean M. (32F39E60DO),  
Iowa City
- Loomis, W. E. (28F29E66G),  
Ames
- Martin, George W. (F24L34E63G),  
Iowa City
- Marts, Ralph O. (25F56E68G),  
Princeton, Kan.
- Miller, Robert C. (44F65E67G),  
Wahiawa, Hawaii
- Miller, S. Porter (38F60E67C),  
Cairo, UAR
- Morrow, Roger (35F38E69F),  
Salem, W. Va.
- Ough, Lee D. (31F48E71C),  
Clinton
- Paddock, Floyd B. (F24E62F),  
Ames
- Plagge, Herbert J. (13F17E58AB),  
Ames
- Pottemaum, Sr. M. Edward  
(38F57E71CD), Sioux City
- Robertson, J. Fred (30XF60E67A),  
Ames

Romig, R. Everett (58F73E73C),  
Ft. Myers, Florida

Rothe, Erich H. (41E66A),  
Ann Arbor, Mich.

Schulte, Rev. George N. (F31E71CD),  
Dubuque

Schwarte, L. H. (35F56E66DG),  
Ames

Selz, Paul B. (46F60E73BQ),  
Fairfield

Sherman, L. P. (F20E61D),  
Grinnell'

Smith, Erma A. (27F29E65F),  
Wichita, Kan.

Snedecor, George W. (F30E64A),  
Granada Hills, Calif.

Swanson, Pearl P. (F32E65DO),  
Ames

Tester, Allen C. (26F27E66QE),  
Iowa City

Thomas, Byron H. (F31E66C),  
'Ames

Todd, John N. (27F72E72F),  
Coral Gables, Fla.

Van Tuyl, Francis M. (11F14E63EJ),  
Golden, Colorado

Von, Ohlen, Floyd W. (46F51E72FG),  
Fairfield

Wellhouse, Walter H. (22F32E62F),  
Huntington Beach, Calif.

Wissink, G. M. (30F60E72QB)  
Mankato, Minn.

Wolden, Mrs. B. O. (26E67G),  
Estherville

Wylie, C. C. (26F49E60AB),  
Cedar Rapids

## LIFE FELLOW

Azbell, William (53F60L70B),  
Waverly

Boller, Jack L. (68F70L70Q),  
Des Moines

Burton, Verona D. (46F56L57G),  
Mankato, Minn.

Coleman, Richard (66L67FG),  
Fayette

Gerks, Irvin H. (58F60L68B),  
Cedar Rapids

Hungerford, James (64L66QFGO),  
Marshalltown

Jones, Charles W. (60F64L66C),  
Sault Saint Marie, Mich.

Kopf, Kenneth (31F45L45G),  
San Francisco, Calif.

Kreider, Orlando C. (32F48L54AQ),  
Ames

Marzeck, George L. (64F70L70BFJ),  
West Burlington

McCurdy, John W. (64L67DE),  
Marshalltown

Miller, Wayne L. (57F60L61DO),  
Fairbanks, Alaska

Palmer, Jr., Edward C. (47F60L60IJ),  
Sioux City

Pilicer, Abraham (F57L58CF),  
Cedar Rapids

Sollami, Blase J. (60F70L70AB),  
Davenport

Wenberg, Edwin H. (38L48E),  
Reston, Va.

Wilson, L. R. (35F38L42EG),  
Norman, Oklahoma

Yos, David A. (53F56L58G),  
Portales, N.M.

## FELLOW

## A

Adams, Richard D. (62F64B),  
Fayette  
Akin, Wallace E. (54F57E),  
Des Moines  
Allegre, Charles F. (51F58F),  
Cedar Falls  
Allison, Jr., Byron L. (55F57B),  
Barrington, Illinois  
Alton, Everett D. (F69MAB),  
Iowa City  
Ames, William F. (69F70MA),  
W. Germany  
Anderson, Thomas P. (F69M),  
Iowa City  
Anderson, Wayne I. (63F64QE),  
Cedar Falls  
Andrews, James G. (69F70M),  
Iowa City  
Armstrong, Frederick C. (49F57FGC),  
Grosse Pointe Woods, Mich.  
Ashton, Ned L. (F58BJ),  
Iowa City  
Asprey, Winifred (44F61A)  
Los Alamos, N. Mexico  
Ault, Addison (F65D),  
Mt. Vernon

## B

Babcock, W. R. (59F69CD),  
Webster City  
Bacher, Paul H. (43F56CD),  
Burlington  
Bachmann, Roger (F64FJ),  
Ames  
Baenziger, Norman C. (50F56C),  
Iowa City  
Bailey, Donald F. (F70A),  
Mt. Vernon  
Bailey, Reeve M. (39F56FJ),  
Ann Arbor, Mich.  
Barnes, Jr., Robert (F62CD),  
Oskaloosa  
Bauguess, Lyle C. (F35x66C)  
Muscatine  
Bechtoldt, Harold P. (49F56I)  
Iowa City  
Becker, Henry (65F71QC),  
Davenport  
Beckett, Royce E. (F70MA),  
Rock Island, Ill.  
Bensend, Dwight W. (49F61G),  
Ames

Benton, Byrl E. (50F51DO),  
Des Moines  
Berg, William N. (65F68FJ),  
Dubuque  
Bharucha-Reid, Albert T. (F50A)  
Detroit, Mich.  
Bieber, Theodore I. (52F60D)  
Boca Raton, Fla.  
Biggs, Donald L. (F57E),  
Ames  
Bluestein, Bernard R. (F53C),  
Glen Rock, N.J.  
Bodman, Sr. Mary Cecelia (50F56G),  
Chicago, Ill.  
Bornong, Bernard (53F56C),  
Davenport  
Bosch, Arthur J. (F59D),  
Pella  
Bosveld, John (64F65Q),  
Dubuque  
Bovbjerg, Richard (F56F),  
Iowa City  
Bovee, Eugene C. (47F56FO),  
Lawrence, Kansas  
Bowen, C. C. (F55G)  
Ames  
Bragonier, W. H. (42F61G),  
Ft. Collins, Colo.  
Bridgman, George (70F71A),  
Waverly  
Brown, Robert G. (F47G),  
Conesville  
Brown, William L. (49F61G),  
Des Moines  
Buchanan, Jr., E. B. (62F63C),  
Iowa City  
Buckles, Robert E. (47F56CD),  
Iowa City  
Buckrop, Roy L. (56F73),  
Moline, Ill.  
Bulat, Thomas J. (50F56BG),  
Davenport  
Burroughs, Wise (56F61C),  
Ames  
Busch, Carl R. (49F61E),  
Des Moines  
Buss, Robert (F66B),  
Centerville

## C

Campbell, Russell B. (F57E),  
Coralville

Canfield, Earle L. (47F51A),  
Des Moines

Carlander, Kenneth D. (F48JF),  
Ames

Carlson, Alice M. (F48F),  
Pella

Carlson, O. Norman (F55C),  
Ames

Carter, Jack (56F60QC),  
Colorado Springs, Colo.

Cazin, Jr., John (F65DG),  
Iowa City

Chapman, George (65F71Q),  
Dubuque

Chapman, Jr., John H. (F72K),  
Cedar Rapids

Charity, Leon F. (F70M),  
Ames

Chellevoid, John O. (39F57Q),  
Waverly

Chermock, Ralph (F68FJ),  
Fairfield

Christensen, Cameron L. (61F68G),  
Webster City

Christiansen, James B. (F55C),  
Storm Lake

Christiansen, K. A. (56F61F),  
Grinnell

Christiansen, Paul A. (65F72G),  
Mt. Vernon

Clark, Larry J. (F65BQ),  
Chariton

Classon, Warren (64F71Q),  
Davenport

Clausen, Bernard L. (60F64QJ),  
Cedar Falls

Clotfelter, Beryl E. (F64B),  
Grinnell

Cook, Kenneth M. (55F610)  
Cedar Rapids

Cooper, George R. (49F60G),  
Orono, Maine

Coppock, William H. (47F51C),  
Des Moines

Cox, H. C. (53F57F),  
New Orleans, LA.

Curtis, James (F65I),  
Iowa City

**D**

Danforth, Joseph D. (F48QC),  
Grinnell

Danforth, William (48F60F),  
Chicago, Ill.

Danielson, Gordon C. (49F56B),  
Ames

Davis, Arthur W. (42F61A),  
Ames

Dean, H. L. (31F44G),  
Iowa City

Dee, Henry L. (F70I),  
Iowa City

DeLisle, Donald G. (F63G),  
Indianola

DeLong, Bruce (67F71Q),  
Waterloo

Denisen, Ervin L. (53F61G),  
Ames

Denny, Wayne B. (49F61B)  
Grinnell

Denser, Jr., Clarence H. (F60FG),  
Des Moines

Deskin, William A. (53F70C),  
Mt. Vernon

DeYoung, Marvin (64F73BC),  
Sioux Center

Diana, John N. (F70-O),  
Iowa City

Dickinson, Terry L. (F69I),  
Ames

Diehl, H. C. (F41C),  
Ames

Dixon, Howard R. (48F60E),  
Bettendorf

Docken, Adrian M. (54F61C),  
Decorah

Dodd, John D. (51F56G),  
Ames

Dodge, Albert F. (32F52G),  
Ames

Dolter, Robert J. (F53CD),  
Dubuque

Dorheim, Fred H. (47F60E),  
Iowa City

Dougal, Merwin D. (F70M),  
Ames

Dowell, Virgil E. (57F58F),  
Cedar Falls

Downey, John C. (F69QFG),  
Cedar Falls

Doyle, John R. (56F61C),  
Iowa City

Drake, William N. (F65A),  
Fayette

Drexler, R. V. (41F45G),  
Cedar Rapids

Dunham, Jewett (70F72GO),  
Ames

Durkee, L. H. (F63G),  
Grinnell

Dynneson, Thomas L. (73F73H),  
Marion

**E**

Earls, Lester T. (39F56B),  
Ames  
Easterday, Otho D. (52F61C),  
Warren, N.J.  
Edgar, Rachel (26F31CD),  
Ames  
Eilers, Lawrence (61F70G),  
Cedar Falls  
Elliott, Eugene W. (48F60Q),  
Billings, Mont.  
Ellis, Charles J. (59F72FG),  
Ames  
Embree, Robert A. (F64I),  
Le Mars  
Embree, Robert W. (53F70G),  
Iowa City  
Ericson, Mary Alice (61F73JH),  
Cedar Rapids  
Ernsdorff, Rev. L. E. (F42A),  
Dubuque  
Estee, Charles R. (47F57QC),  
Vermillion, S.D.  
Evans, Titus C. (39F49B),  
Iowa City  
Even, Jr., John C. (F72M),  
Ames

**F**

Fagle, David L. (56F67QFG),  
Marshalltown  
Farber, Terrance A. (F70D),  
Coulcil Bluffs  
Farmer, John N. (54F72F),  
Columbia, Mo.  
Farrell, Thomas (69F70M),  
Iowa City  
Fassel, Mrs. Raymond (65F72-O),  
Ames  
Fassel, Velmer A. (F49CB),  
Ames  
Feng, Bin (69F70M)  
Kokomo, Ind.  
Fishman, Irving Y. (49F56-O),  
Grinnell  
Fleagle, Verlin M. (57F71Q),  
DeWitt  
Foley, Dean C. (F58G),  
Ames  
Folk, Jr., G. Edgar (53F57FO),  
Iowa City  
Folks, Wayne (F71QBE),  
Waterloo

Frankforter, Weldon D. (52F56E),  
Grand Rapids, Mich.  
Frazier, Kenneth E. (61F71Q),  
Boone  
French, Dexter (49F57D),  
Ames  
Frey, Kenneth J. (F57G),  
Ames  
Fruehling, Wilmut G. (53F56I),  
Waverly  
Furnish, William M. (56F57E),  
Iowa City

**G**

Gale, Grant O. (35F39B),  
Grinnell  
Garcia, Pilar A. (53F56DO),  
Ames  
Garvin, Paul L. (F71EJ),  
Mt. Vernon  
Gerrish, Everett E. (F63G),  
Grinnell  
Giles, LeRoy (65F68I),  
Dubuque  
Gillam, B. E. (47F51A),  
Des Moines  
Glass, Lynn (65F71Q),  
Nevada  
Goellner, Karl E. (F50F),  
Cedar Rapids  
Goodman, George J. (F36G),  
Norman, Oklahoma  
Goos, Rogert D. (54F60G),  
Kingston, R. I.  
Gordon, Gilbert (F68C),  
Iowa City  
Goss, Robert C. (62F64CG),  
Cedar Falls  
Graham, Jr., Benjamin F. (F60G),  
Grinnell  
Grant, Stanley C. (F55x71EM),  
Cedar Falls  
Grassmick, Robert A. (70F73FG),  
Oxford, Ohio  
Griffith, David R. (72F73O),  
Ames

**H**

- Hackbarth, Winston (51F57QG),  
Ruston, La.
- Hale, William H. (56F61D),  
Tuscon, Arizona
- Halstead, Steven K. (68F69QB),  
Bondurant
- Hamilton, John M. (49F60F),  
Parkville, Mo.
- Hammond, Earl G. (F63D),  
Ames
- Hampton, David C. (63F65C),  
Waverly
- Handy, Richard L. (52F60E),  
Ames
- Hanna, Calvin (50F60D),  
Little Rock, Ark.
- Hansen, Robert E. (60F73E),  
Riverside
- Hansen, Robert S. (F49C),  
Ames
- Hanson, Robert W. (64F66Q),  
Cedar Falls
- Hanson, Roger J. (58F62B),  
Cedar Falls
- Harding, Delma E. (41x50F54QF),  
Ames
- Harrison, Harry M. (48F61F),  
Madrid
- Hart, Lawrence A. (F56x71A),  
Dubuque
- Haugen, Arnold O. (58F61J),  
Ames
- Haun, R. R. (50F51QC),  
Des Moines
- Haupt, Robert E. (F54QFO),  
Ames
- Hazlet, Stewart E. (35F60D),  
Riverside, Calif.
- Heckart, Harold A. (F57AB),  
Unionville
- Hedges, James A. (61F72EF),  
Landover, Md.
- Heezen, Bruce C. (47F57E),  
Palisades, N. Y.
- Helms, Don Ray (64F72J),  
Bellevue
- Hendriks, Herbert E. (39F55E),  
Mt. Vernon
- Hershey, H. Garland (F37E),  
Iowa City
- Hertel, Elmer W. (37F56QJ),  
Waverly
- Herum, Gary (65F68A),  
Dubuque
- Herwig, Milton (51F68QFG),  
Waterloo
- Hicks, Ellis A. (49F54F),  
Ames
- Hill, Edward T. (F70A),  
Mt. Vernon
- Himmel, Keith L. (56F64F),  
Fayette
- Hinman, Eugene (F64E),  
Mt. Vernon
- Hinrichsen, J. J. L. (F30A),  
Ames
- Hodges, Herbert J. (47F59F),  
Davenport
- Hodgin, David M. (63F65AB),  
Cedar Rapids
- Hoffert, Joseph B. (F59A),  
Des Moines
- Hoganson, Dean A. (F71J),  
Iowa City
- Hogben, C. Adrian M. (F70-O),  
Iowa City
- Holland, Francis E. (F70M),  
Mason City
- Hollander, W. F. (65F72F),  
Ames
- Hoover, James M. (56F70EM),  
Ames
- Horick, Paul J. (49F60E),  
Iowa City
- Horner, Jr., Harry T. (F65G),  
Ames
- Hsiu, Frank Juei-Wan (F70M),  
Matawan, N. J.
- Hudson, Jack L. (F71CQ),  
Davenport
- Huffman, Donald M. (53F60G),  
Pella
- Hulbary, Robert L. (F47G),  
Iowa City
- Humphrey, S. Bruce (49F57CD),  
Bel Air, Md.
- Hussey, Keith M. (50F56E),  
Ames
- Hutchinson, Donald R. (F54B),  
Dubuque

**I**

- Imig, Charles J. (F71-O),  
Iowa City
- Isely, Duane (F47G),  
Ames

**J**

Jacob, F. E. (48F51C),  
Des Moines  
Jacobsen, Robert S. (39F60A),  
Decorah  
James, William J. (50F60C),  
Rolla, Missouri  
Jameson, Jr., William J. (F66A),  
Cedar Rapids  
Janecke, James (F67AB),  
Greeley, Colo.  
Jensen, Verner (F57QB),  
Cedar Falls  
Johnson, Leland P. (38F49QF),  
Des Moines  
Joslin, Paul H. (F68QJ),  
Des Moines

**K**

Kaefersteine, Sr. Mary V. (64F65FG),  
Dubuque  
Kalina, Martin H. (F41BC),  
Victoria, B.C., Canada  
Kane, Harrison (F70M),  
Iowa City  
Karas, George G. (61F66I),  
Ames  
Kaschins, Edward A. (F72K),  
Decorah  
Kay, G. Marshall (24F30E),  
New York, N. Y.  
Keiser, Jeffrey E. (F67CD),  
Cedar Rapids  
Keithahn, Lena M. (64F68QG),  
Mason City  
Kellogg, Leonard F. (49F61GJ),  
Ames  
Kennedy, John F. (F70M),  
Iowa City  
King, Dorothy W. (56F60DFO),  
Taipei, Formosa  
Kingsbury, Phyllis (F69FJ),  
Des Moines  
Kirkham, Don (F47BE),  
Ames  
Klonglan, Eugene D. (53F65J),  
Boone  
Knopick, Patricia (F71QF),  
Davenport  
Knowler, Lloyd A. (40F48A),  
Iowa City  
Knudson, George E. (54F61CJ)  
Decorah

Koch, Donald L. (F63E),  
Iowa City  
Kollros, Jerry J. (F47F),  
Iowa City  
Koppen, John D. (66F70GJE),  
Eagle Grove  
Kunsch, Rev. William E. (F49FG),  
Dubuque  
Kutkuhn, Joseph H. (54F61F)  
Ann Arbor, Mich.

**L**

Ladd, Sr. Francis (50F56F),  
Clinton  
Lambert, Robert J. (47F60A),  
Ames  
Lamp, Jr., George E. (71F72MJ),  
Ames  
Lance, George M. (F70M),  
Iowa City  
Larson, Martha E. (F67FG),  
Milton  
Lata, Gene F. (F56CD),  
Iowa City  
Legvold, Sam (46F61B),  
Ames  
Lemish, John (F57E),  
Ames  
Lentz, Paul Lewis (42F60GQ),  
Beltsville, Md.  
Lersten, Nels R. (64F73G),  
Ames  
Lewis, Robert E. (F68FJ),  
Ames  
Lim, Zinnia C. (F71D),  
Cedar Rapids  
Lindahl, Clarence H. (48F57A),  
Ames  
Littlejohn, Charles P. (57F60QBD),  
Sioux City  
Lohnes, Robert A. (63F71E),  
Ames  
Lommason, Robert C. (48F56G)  
Lincoln, Nebraska  
Lorenz, Philip J. (57F60B),  
Sewanee, Tenn.  
Lott, Jr., Fred W. (50F64A),  
Cedar Falls  
Loupee, Burton J. (69F70BJ),  
Augusta, Kansas  
Lyon, Howard W. (51F64D),  
Cedar Falls

**M**

Macmillan, James G. (F73DQ),  
Cedar Falls

Madden, Kenneth M. (32F56J),  
Indianola

Mahlstede, J. P. (53F61G),  
Ames

Maple, Clair G. (F50A),  
Ames

Marquardt, D. N. (50F53C),  
Omaha, Nebraska

Martin, Don S. (F49C),  
Ames

Mateos, Manuel (60F62EJ),  
Madrid, Spain

Mathers, Carol K. (48F56F),  
DeKalb, Ill.

Mayhew, James K. (55F56F),  
Chariton

McCalley, David (67F68Q),  
Cedar Falls

McCullum, Clifford G. (51F57QF),  
Cedar Falls

McDonald, Donald B. (F70MJ),  
Iowa City

McGuire, Jr., Judson U. (55F57AF),  
University Park, Md.

McIlrath, Wayne J. (42F56G),  
DeKalb, Ill.

McNabb, Harold S. (54F56G),  
Ames

Meglitsch, Paul A. (50F51F),  
Des Moines

Meijer, Robert R. (F69QB),  
Fairfield

Meints, Clifford L. (F58QCD),  
Indianola

Meloy, Robert W. (50F60DF),  
Sioux City

Mendoza, Guillermo (F46F),  
Grinnell

Menzel, Bruce W. (F72FJ),  
Ames

Merkley, Wayne B. (70F72FGJ),  
Des Moines

Metzler, David E. (54F61C),  
Ames

Meyers, Bernard L. (F70M),  
Iowa City

Miller, Bertrand J. (F65QB),  
Davenport

Miller, Emil C. (60F65B),  
Decorah

Miller, Richard B. (F70M)  
Davenport

Miller, Robert M. (67F68G),  
Dubuque

Miller, Wilmer J. (F64F),  
Ames

Millspaugh, D. D. (36F56x73F),  
Mt. Pleasant

Moen, Allen L. (F65B),  
Pella

Morris, Everett F. (54F61G)  
Macomb, Ill.

Morrow, Mrs. Roger M. (47F61G),  
Macomb, Ill.

Mote, Robert F. (52F72FG),  
Des Moines

Moyer, John F. (51F60GJ),  
Oskaloosa

Muncy, Robert J. (66F72FJ),  
Ames

Myszewski, Michael E. (70F71QF),  
Des Moines

**N**

Naylor, Ernst (F56FG),  
Fayette

Nelson, Clarence H. (43F56GQ),  
E. Lansing, Mich.

Nimrod, Dale (F68QC),  
Decorah

Nomsen, Richard C. (49F72FG),  
Clear Lake

Norton, Don C. (60F63G),  
Ames

Nye, Rev. Warren E. (F42FG),  
Dubuque

**O**

Oberg, Edwin N. (38F56A),  
Iowa City

Oelke, W. C. (32F50CJ),  
Grinnell

Ohuche, Romanus O. (F68QA),  
Njala, Sierra Leone, W. Africa

Oliven, Carol (F72K),  
Iowa City

Oliven, Melvin N. (68F72B),  
Iowa City

Olofson, Charles (F62J),  
Ankeny

Olszak, Waclaw (F57QAB),  
Warsaw, Poland

Orr, Alan R. (66F73QG),  
Cedar Falls



Osburn, James O. (47F56M),  
Iowa City  
Osuch, Carl (65F68CD),  
Dubuque  
O'Toole, James J. (F73DF),  
Boone  
Ott, Marvin J. (70F71A),  
Waverly

**P**  
Paddock, William C. (53F60G),  
Miami, Fla.  
Palmquist, Robert C. (F66EJ),  
Ames  
Parchen, Jr., Frank R. (52F55AC),  
Richmond, Va.  
Paris, Clark D. (35F57G),  
E. Lansing, Mich.  
Parker, Mary C. (58F60E),  
Iowa City  
Paulson, Wayne L. (F73JM),  
Iowa City  
Peglar, George W. (53F61A),  
Ames  
Pegnetter, Richard C. (F73K),  
Iowa City  
Pesek, Jr., John T. (59F72G),  
Ames  
Peterson, Hjalmer V. (49F73C),  
Mason City  
Peterson, Peter A. (61F63G),  
Ames  
Petri, Leo H. (53F57F),  
Waverly  
Picklum, Warren E. (50F60G),  
Cedar Falls  
Pierre, W. H. (45F56JO),  
Ames  
Pilgrim, Donald H. (64F65A),  
Decorah  
Poneck, Esther Cooper (32F69I),  
Putney, Vt.  
Poppy, Willard J. (50F56QB),  
Cedar Falls  
Porter, J. R. (F45-O),  
Iowa City  
Porter, T. Wayne (50F60F),  
E. Lansing, Mich.  
Poulter, R. William (F65G),  
Mt. Pleasant  
Pray, Francis A. (58F59F),  
Mt. Vernon  
Prill, Edward A. (F37CD),  
Fredericksburg, Texas  
Prior, Paul V. (52F56G),  
Omaha, Nebraska

**Q** Quinn, Loyd Y. (F56GO),  
Ames  
**R**  
Rakoff, Henry (F68D),  
Fairfield  
Reitan, Phillip J. (F63FG),  
Decorah  
Rhode, Norman G. (F56BC),  
Alva, Oklahoma  
Rhum, Gordon J. (55F61I)  
Cedar Falls  
Rice, Carl S. (55F56FJ),  
Davenport  
Rider, Paul E. (F70C),  
Cedar Falls  
Riecken, Frank F. (45F56EJ),  
Ames  
Riggs, Dixon L. (60F73FO),  
Cedar Falls  
Riggs, Philip S. (F51B),  
Des Moines  
Ristau, Arlyn E. (69F71FO),  
Waverly  
Robertson, Katharine J. (52F57DF),  
Concord, Calif.  
Robinson, David (70F71BQ),  
Des Moines  
Roderuck, Charlotte E. (53F56D),  
Ames  
Rogers, Rodney A. (50F57FG),  
Des Moines  
Rogers, Thomas E. (F56FO),  
Mt. Vernon  
Roiseland, Donald S. (F69E),  
Waverly  
Rosauer, Elmer A. (59F61CE),  
Ames  
Rosinski, Martin A. (F36G),  
Iowa City  
Roslien, David J. (60x70F72JFO),  
Decorah  
Rothlisberger, Hazel M. (47F57A),  
Dubuque  
Rouse, Hunter (F70M),  
Iowa City  
Routh, Joseph I. (F42D),  
Iowa City  
Rowley, Wayne A. (F68F),  
Ames  
Roy, Chalmer J. (F48QE),  
Ames  
Runkel, Sylvan T. (38F61G),  
Des Moines  
Rush, Richard (F60E),  
Phoenix, Ariz.

- S**
- Salisbury, Neil E. (F60E),  
Iowa City
- Sallee, Eugene M. (47F60C),  
Cincinnati, Ohio
- Sanderson, Donald E. (F56A),  
Ames
- Sandford, Floyd R. (F72FO),  
Cedar Falls
- Sandven, R. W. (65I)  
Dubuque
- Sauer, Pauline L. (50F64FJ),  
Cedar Falls
- Savage, William R. (F68B),  
Iowa City
- Saxe, Jr., L. H. (F53F),  
Morgantown, W. Va.
- Schabillion, Jeffry (62F73GEJ),  
Iowa City
- Schaefer, Donald A. (62F68QB),  
Bettendorf
- Schmidt, Reese B. (F53C),  
Ft. Madison
- Schmitz, Jr., Frank (F70M),  
Mason City
- Schmubach, James C. (57F72FJ),  
Vermillion, S. D.
- Scholtes, Wayne H.  
Ames
- Schottelius, Byron A. (F70-O),  
Iowa City
- Schurrer, Augusta (56F61AQ),  
Cedar Falls
- Scott, Thomas M. (58F68QC),  
W. Des Moines
- Searle, Gordon W. (55F61QO),  
Iowa City
- Seeburger, Mrs. Vernon R. (34F35E),  
San Diego, California
- Sendlein, Lyle V. A. (61F71E),  
Ames
- Sharp, William L. (72F73Q),  
Iowa City
- Sheeler, John B. (53F61ACE),  
Ames
- Sheil, Joseph L. (70F71ACD),  
Mt. Ayr
- Siemer, Ruth N. (F65DJ),  
Cedar Rapids
- Sievert, Mary E. (65F71Q),  
Davenport
- Sinotte, Stephen R. (F70EF),  
Kalamazoo, Mich.
- Sjoerdsma, Ted (F65A),  
Iowa City
- Sloan, Raymond L. (62F66F),  
Jefferson
- Small, W. A. (F57A),  
Genesco, N. Y.
- Smith, Frederick G. (49F61QG),  
Ames
- Smith, May Alice (F63FG),  
Alden
- Smith, Paul A. (65F71BQ),  
Cedar Rapids
- Smith, Ronald E. (59F60FJ),  
Indianapolis, Indiana
- Soy, Eloise (64F71Q),  
Jesup
- Spriesterbach, D. C. (F65I),  
Iowa City
- Sprugel, Jr., George (F48F),  
Champaign, Illinois
- Stanley, Richard H. (F70M),  
Muscatine
- Starr, Frank W. (58F60Q),  
Cedar Falls
- Stevenson, Andrew (63F66QABCE),  
Baltimore, Maryland
- Stickler, W. Hugh (32F60BEF),  
Tallahassee, Florida
- Stoermer, Eugene F. (62F72E),  
Ann Arbor, Michigan
- Stork, Florian J. (F42CD),  
Dubuque
- Stout, Donald J. (48F60QG),  
Cedar Rapids
- Stroud, Dean C. (39F60QB),  
Des Moines
- Stuit, Dewey B. (48F56I),  
Iowa City
- Sturm, Harold E. (49F57QB),  
Ann Arbor, Michigan
- Svec, Harry J. (F54C),  
Ames
- Swanson, Harold D. (F61F),  
Des Moines
- Sweeney, Richard (65F71Q),  
Des Moines
- T**
- Taber, Willard A. (51F57GC),  
College Station, Texas
- Tallman, Russell W. (35F63QI),  
Jewell
- Tauber, Oscar E. (36F37FO),  
Ames

Taylor, Dorothy M. (44F57BQ),  
Dubuque  
Tebben, Gerald D. (70F71BQ),  
Waverly  
TePaske, E. Russell (64F66QF),  
Cedar Falls  
Tiffany, Lois H. (46F60G),  
Ames  
Tillapaugh, Iola (39F60I),  
Cedar Rapids  
Tipton, Charles M. (F70-O),  
Iowa City  
Toomsen, Duane (64F73FG),  
Des Moines  
Trump, Richard F. (47F61QF),  
Ames  
Tuthill, Samuel J. (70F71EJM),  
Iowa City  
Tuttle, Sherwood D. (54F56E),  
Iowa City

## U

Uhlaner, Julius E. (41F63I),  
Arlington, Virginia  
Ulmer, Martin J. (F52F),  
Ames

## V

Van Bruggen, Ted (52F60G),  
Vermillion, S.D.  
Vanden Branden, R. J. (F67QF),  
Des Moines  
Vandenbroucke, Jr., A. C. (68F69CD),  
Waverly  
Vaughan, Edwin M. (55F56B),  
Bettendorf  
Vinje, Mary M. (F53QG),  
Davenport  
Vinograde, Bernard (46F61A),  
Ames  
Voigt, Adolf F. (F47C),  
Ames

## W

Wade, William D. (F70MJA),  
Sherbrooke, Quebec, Canada  
Walker, Waldo S. (56F60G),  
Grinnell  
Wallace, Ralph H. (F70M),  
Mason City  
Wallinga, Warren D. (F46QF),  
Indianola  
Waltmann, August W. (70F71A),  
Waverly

Waltmann, William L. (59F65A),  
Waverly  
Watkins, Stanley R. (F59C),  
Cedar Rapids  
Watson, Margaret L. (56F57QF),  
Indianola  
Wawzonek, Stanley (46F49D),  
Iowa City  
Webster, Ruth M. (41F60E),  
Cedar Rapids  
Weiss, Harry J. (F70MA),  
Ames  
Weller, Milton W. (F58F),  
Ames  
Westerhof, Anthony C. (49F51IO),  
Carlisle  
Wetzstein, Harland, L. (40F61C),  
Lake View  
Wickham, Peter P. (70F71D),  
Cedar Rapids  
Wildner, David R. (61F70C),  
Ames  
Will, Emery L. (50F51QJ),  
Oneonta, New York  
Williams, George T. (35F60QB),  
Davenport  
Wilson, Elmer L. (46F57BG),  
Nogales, Arizona  
Wilson, Leland L. (56F57CQ),  
Cedar Falls  
Wilson, S. Lane (64F66G),  
Des Moines  
Winier, Leonard (49F61QF),  
Cedar Falls  
Wolff, Darold M. (67F71FO),  
Waverly  
Woo, Ching S. (F69C),  
Cedar Falls  
Woods, Joe D. (46F55CQ),  
Des Moines  
Wright, Curtis (F68QE),  
Dubuque  
Wubbels, Gene G. (F70D),  
Grinnell

## Y

Yager, Robert E. (56F60QG),  
Iowa City  
Youngquist, C. W. (68F69EJ),  
Fort Dodge

**Z**

Zein-Eldin, Elsayed A. (52F57F),  
Galveston, Texas  
Zein-Eldin, Zoula Pyle (49F60F),  
Galveston, Texas

Zell, LeRoy W. (50F56QG),  
Mankato, Minnesota  
Zemke, Warren T. (68F69C),  
Waverly  
Zimmermann, William J. (51F56F)  
Ames

**A**

Abbas, Gary L. (71QQ),  
Davenport  
Adams, Clara (55C),  
Baltimore, Maryland  
Adamson, Richard H. (61DF),  
Bethesda, Maryland  
Alberda, Willis J. (65A),  
Sioux Center  
Aldrich, Jerry J. (66QB),  
Alden  
Anderegg, James W. (66ABC),  
Guttenberg  
Anderson, A. Dwight (69DCB),  
Cedar Rapids  
Anderson, Jr., Arthur R. (63AC),  
Ames  
Anderson, B. Wylie (73KQ),  
Cedar Falls  
Anderson, Duane C. (72H),  
Cherokee,  
Anderson, Harold D. (67QC),  
Columbia, Missouri  
Anderson, Kenneth B. (66QBC),  
Newell  
Anderson, Orieda H. (62D),  
Clinton  
Andrews, Charles G. (68J),  
Mason City  
Andrews, Ronald D. (73J),  
Clear Lake  
Angerer, Dorothy (54DO),  
Des Moines  
Aperans, Agris (64Q)  
Waterloo  
Armstrong, Clayton S. (69ABQ),  
Roland  
Arndt, Elmo H. (68B),  
Mason City  
Arndt, Richard G. (71Q),  
Oelwein

**ASSOCIATE**

Arnold, Richard W. (60E),  
Ithaca, N.Y.  
Arora, Kashmiri L. (66x72FO),  
Des Moines  
Asch, Ronald L. (67QF),  
Eureka, Illinois  
Ashby, William (64QE),  
Des Moines  
Asmussen, Herrold (70EGF),  
Sioux City  
Austin, Jr., Saul (71Q),  
Waterloo

**B**

Bachman, M. D. (73FG),  
Ames  
Baerreis, David A. (70H) ✓  
Madison, Wisconsin  
Bailey, Donald M. (71MQ),  
Ames  
Bain, Virgil E. (66Q),  
Centerville  
Baird, Carroll W. (49FG),  
Cody, Wyoming  
Baker, Richard (72),  
Coralville  
Balk, Eugene (66Q),  
Mason City  
Bamrick, John F. (56F),  
Dubuque  
Banville, Gilbert J. (64GF),  
Saquenay, Quebec, Canada  
Bare, Keith (64QC),  
Emmetsburg  
Barrow, Lloyd H. (68QF),  
Marion  
Bateman, Steve (70QFD),  
E. Dubuque, Illinois  
Battles, Robert J. (67Q)  
Ankeny

- Bauman, David M. (70F),  
Belle Plaine
- Beach, Joseph (65Q),  
Cedar Rapids
- Bedell, Mirriel S., (69QJ),  
Iowa City
- Beebe, James M. (42B),  
Frederick, Maryland
- Beerman, David F. (69QF),  
Sioux Rapids
- Bell, Harlan L. (62QJ),  
Vinton
- Bell, R. Norman (66Q),  
Tipton
- Benne, Carolyn (71Q),  
Sioux City
- Benne, Lawrence W. (69Q),  
Sioux City
- Bennett, Jane Hanisch (64CD),  
Tulsa, Oklahoma
- Bennett, William (64QFG),  
Eagle Grove
- Bennett, William E. (68C),  
Iowa City
- Benson, Bernard (67Q),  
Signal Mountain, Tennessee.
- Berg, Pauline G. (57QC),  
Odebolt
- Berge, Phillip (67B),  
Fayetteville, Arkansas
- Berkland, Terrill R. (67QC),  
Warrensburg, Missouri
- Berlin, Jacques A. (60FO),  
Williamsville, New York
- Betten, Dwain K. (69QB),  
Boone
- Biere, Henry (67QBCD),  
Anamosa
- Bishop, Richard A. (71FJ),  
Clear Lake
- Bittle, Maynard G. (67Q),  
Mt. Pleasant
- Black, Margaret (58J),  
Des Moines
- Blackman, Sally J. N. (50GQ),  
Des Moines
- Blagen, William S. (61CF),  
Ames
- Blaker, Donald (58QG),  
Fayette
- Blumgren, Jean (71Q),  
Cedar Falls
- Boatman, Paul M. (61AB),  
Richardson, Texas
- Boaz, David P. (68D),  
Iowa City
- Bobbitt, Thomas (64G),  
Bowling Green, Ohio
- Bohlke, Glenn H. (51CD),  
Clinton
- Bolkema, John L. (69Q),  
Hull
- Bondurant, Dewey T. (69J),  
Des Moines
- Borchers, Harold A. (67FG),  
Bemidji, Minnesota
- Bowles, John B. (66FG),  
Pella
- Boyd, Raymond F. (52QC),  
Ankeny
- Boylan, Calvin F. (66BC),  
Centerville
- Boylan, James R. (72HJ),  
Iowa City
- Boynton, K. L. (67Q),  
Leesville, South Carolina
- Brady, Eugene R. (62Q),  
Perry
- Breckenridge, Robert E. (58A),  
Ottumwa
- Brescia, Vincent T. (60FG),  
St. Charles, Missouri
- Brill, Kirk (73J),  
Des Moines
- Brockmeyer, Dale L. (60G),  
Nevada, Missouri
- Brown, Arlan K. (67QFG),  
Indianola
- Brown, Gary V. (68Q),  
Estherville
- Brown, Harold G., (73CD),  
Kansas City, Missouri
- Brown, Mabel E. (31GF),  
Conesville
- Brugman, Lois I. (71DQ),  
Muscatine
- Brunkhorst, Herbert (67QO),  
Cedar Rapids
- Buckmaster, Robert (70J),  
Waterloo
- Bullard, Richard G. (59E),  
Des Moines
- Burham, Robert L. (53QD),  
Des Moines
- Buss, Paul (69G),  
NCA
- Buttrey, Benton W. (63F),  
Ames

## C

- Cagle, Jr., Joseph W. (62E),  
 Iowa City  
 Cahalan, Richard (70Q),  
 Eagle Grove  
 Calkins, Homer D. (73JG),  
 Iowa Falls  
 Cameron, W. Scott (72M),  
 Cincinnati, Ohio  
 Capellen, Jennings (63CJ),  
 Ames  
 Carlson, Gaile L. (60AB),  
 Ogden  
 Carman, John H. (72EC),  
 Iowa City  
 Carr, Duane T. (64C),  
 Cedar Rapids  
 Casse, Robert M. (70I),  
 Iowa City  
 Cater, E. David (63C),  
 Iowa City  
 Cawley, Edward T. (61x73FG),  
 Dubuque  
 Celander, D. R. (62C),  
 Des Moines  
 Cell, Donald C. (73K),  
 Mount Vernon  
 Chang, James C. (65C),  
 Cedar Falls  
 Chapman, Elvin B. (66B),  
 Ft. Dodge  
 Chapman, Orville L. (62D),  
 Ames  
 Charter, Paul A. (72Q),  
 Adair  
 Chehak, John D. (71FJ),  
 Cedar Rapids  
 Chisholm, Kathryn (60FG),  
 Bettendorf  
 Christensen, Marvin (67QB),  
 Iowa City  
 Christiansen, James L. (60F),  
 Des Moines  
 Chuck, Edward M. (66FI),  
 Mason City  
 Ciscel, David H. (72K),  
 Des Moines  
 Clark, Homer O. (68QE),  
 Mason City  
 Clark, Raymond L. (68G),  
 Ames  
 Clarke, Cornell C. (73QO),  
 Fairfield  
 Clarke, Woodrow (64QFG),  
 Council Bluffs  
 Clauson, Lowell F. (33Q),  
 Kiron  
 Cocke, J. M. (69E),  
 Telford, Tennessee  
 Collins, Gary B. (67G),  
 Cincinnati, Ohio  
 Collins, Sister (73FO),  
 Sioux City  
 Conover, David F. (59G),  
 Oshkosh, Wisconsin  
 Cook, Robert E. (58QF),  
 Jackson, Missouri  
 Cook, T. Robert (66QBC),  
 Greenfield  
 Coon, David M. (72JD),  
 Lake Bluff, Illinois  
 Cooper, Richard G. (72DO),  
 Des Moines  
 Coppola, Robert J. (73IO),  
 Des Moines  
 Coucouvanis, Dimitri (71C),  
 Iowa City  
 Craft, John L. (73I),  
 Waverly  
 Craig, Bruce William (72DFO),  
 Wichita, Kansas  
 Cram, Sheldon L. (63B),  
 LeMars  
 Craver, Marvin (68QE),  
 Cedar Falls  
 Crawford, John M. (68CD),  
 Onawa  
 Crichton, David (57C),  
 Pella  
 Croak, Maureen L. (73GDF),  
 Pella  
 Cronau, Jr., Leslie H. (57CF),  
 Orange, Connecticut  
 Crosser, Richard L. (65GJ),  
 Blairsden, California  
 Crossman, Glenn C. (72EG),  
 Riceville  
 Cunningham, Gerald (64Q),  
 Marshalltown  
 Czarnecki, Edgar R. (72K),  
 Iowa City

## D

- Dahlsten, Annabelle H. (59FG),  
 Burlington  
 Dam, Cecil F. (60B),  
 Mt. Vernon

- Damme, M. Kathleen (71QC),  
Sioux City
- Daniel, Alice (58A),  
Des Moines
- Daniell, David (66FG),  
Indianapolis, Indiana
- Daniels, Jack (69QB),  
Emmetsburg
- Davis, George R. (69QFJ),  
Reinbeck
- Davison, Helen Hawk (52QF),  
Northridge, California
- Dawson, John C. (72K),  
Grinnell
- Day, Dennis P. (72JQ),  
Des Moines
- DeKock, Walter E. (54Q),  
Cedar Falls
- DeLuca, Frederick P. (71QE),  
Ames
- Demirel, Turgut (58CE),  
Ames
- Dengler, Madison L. (71I),  
Decorah
- Denner, Melvin W. (59FJG),  
Evansville, Indiana
- Dennis, Sister M. (70Q),  
Dubuque
- DePasquale, John L. (64FO),  
Angola, New York
- DeSotel, Margaret M. (66Q),  
Walcott
- Dettmering, Merlin D. (68Q),  
Dysart
- Dhar, Sujit K. (67QG),  
Iowa Falls
- Dickey, Harris E. (50A),  
Ames
- Dickinson, Henry J. (63QC),  
Maquoketa
- Dietrich, Edward V. (52C),  
Ft. Washington, Pa.
- Dillon, Ralph H. (54QBC),  
Oskaloosa
- Dimit, James E. (53G),  
Kirksville, Missouri
- Dittmer, Donald R. (70A),  
Indianola
- Divelbiss, James E. (60QF),  
LeMars
- Dodge, Christopher H. (62F),  
Gambrills, Md.
- Doerges, John E. (65AB),  
Fayette
- Dolphin, Warren D. (72DO),  
Ames
- Doorenbos, Ray (56B),  
Pella
- Downs, Gary E. (73QB),  
Ankeny'
- Dozark, David L. (72Q),  
Independence
- Drake, James E. (68B),  
Centerville
- Dray, Walter (58B),  
Davenport
- Dreves, Everett E. (71FG),  
Estherville
- DuBois, Dennis N. (67FO),  
Knoxville
- Dunn, Gerald E. (73QE),  
Ames
- Dupont, Paul J. (70Q),  
Dubuque
- Duvick, Donald N. (54G),  
Johnston
- ## E
- Eames, Edward J. (49EJ),  
Springfield, Virginia
- Eason, Oliver W. (57QB),  
Cedar Falls
- Eckblad, James W. (72F),  
Decorah
- Edgar, Mrs. R. A. (65IO),  
Dubuque
- Edwards, David C. (64I),  
Ames
- Effigy Mounds Nat'l. Mon. (64),  
McGregor
- Ehm, Maurice A. (68Q),  
Guthrie Center
- Eiben, Carl H. (50FG),  
Amherst, Massachusetts
- Eide, Ronald A. (69QC),  
Forest City
- Elfson, Donald E. (50F),  
Des Moines
- Elmets, Harry B. (52C),  
Des Moines
- Elvin, Betty R. (68Q),  
Huntsville, Texas
- Elwell, James H. (64E),  
Bimidji, Minnesota
- Engardt, Ralph D. (65B),  
Cedar Falls
- Engelhardt, Sister Jeffrey (73A),  
Sioux City

Engelkes, Wilbur (68QB),  
LaPorte City  
Erickson, Eugene M. (66Q),  
Grinnell

Erickson, Luther E. (63C),  
Grinnell

Ervin, Thomas B. (69QE),  
Davenport

Evers, Clyde L. (67Q),  
Marshalltown

Ewart, Bradley (53G),  
Maryville, Missouri

Ewers, Alan (69BQ),  
Carlisle

Eyman, D. P. (65C),  
Iowa City

## F

Fastenow, Craig F. (72MO),  
Iowa City

Findley, Jon D. (64Q),  
Glen Echo, Maryland

Finsand, D. Louis (66Q),  
Cedar Falls

Fisher, Joseph A. (63I),  
Des Moines

Flannery, Edward J. (66Q),  
Council Bluffs

Flesch, Gerald D. (57C),  
Ames

Flickinger, Victor W. (46EJ),  
Alexandria, Virginia

Forbes, Yola (72FO),  
Ames

Francis, John (72QE),  
Muscatine

Franke, Robert G. (61G),  
Ames

Frankenfeld, Robert D. (70Q),  
Manchester

Frantzen, Karl H. (63BCG),  
Omaha, Nebraska

Fraser, William R. (73I),  
Sioux City

Freeman, Michael L. (68BQ),  
Council Bluffs

Frey, Richard E. (50I),  
Des Moines

## G

Gabriel, Richard P. (54QF),  
Thousand Oaks, California

Gaither, Thomas W. (66G),  
Slippery Rock, Pa.

Gardner, Eugene A. (73DO),  
Sioux City

Garlock, Elwood (67QE),  
Cedar Rapids

Garton, Gary L. (68QJ),  
Iowa City

Gayman, Lloyd (69Q),  
Ft. Dodge

Geffen, Joseph (73IH),  
Davenport

Gehrke, Wallace G. (72Q),  
Garwin

George, Glenn M. (62CD),  
Nashua

Gerck, Arthur J. (72EG),  
Mason City

Gerlits, David (67QC),  
Coralville

Gilbert, S. Ronald (67Q),  
Clear Lake

Gingerich, Keith L. (66Q),  
Williamsburg

Gladfelder, H. Lee (71J),  
Boone

Glenister, Brian F. (66E),  
Iowa City

Gochnauer, Carl (67Q),  
Lake Park

Goddard, Ronald E. (69FO),  
Des Moines

Goetsch, Betty C. (64QG),  
Waterloo

Gohman, Walter (65Q),  
Cedar Falls

Gold, Steven D. (73K),  
Des Moines

Goldberg, Yale (28A),  
Des Moines

Gooding, Dwaine (67QE),  
West Burlington

Goodwin, Mrs. James A. (50D),  
St. Louis, Missouri

Gorman, Patricia M. (66EF),  
Clinton

Gormezano, I. (72I),  
Iowa City

Graf, Delores I. (65G),  
Mt. Pleasant

Graves, Wayne H. (62B),  
Hopkins, Minnesota

Green, Robert W. (50B),  
Sioux City

Grandgenett, Robert J. (70Q),  
Britt



Gross, George L. (35AB),  
Huntington, New York  
Gross, Michael P. (71QJ),  
Iowa City  
Gross, Mrs. Phil (66QD),  
McLean, Virginia  
Grout, Loren E. (58Q),  
Mason City  
Gruber, F. F. (50Q),  
Carroll  
Gudmundson, B. J. (70GJ),  
Minneapolis, Minnesota  
Guzick, Adam W. (61BCE),  
Hartford, Connecticut  
Gygi, F. Richard (64DJ),  
Oskaloosa

## H

Haars, Ellen G. (67FG),  
Council Bluffs  
Haensel, Hubert D. (63AG),  
Walnut Grove, Minnesota  
Haglan, Burton W. (66G),  
Des Moines  
Hallauer, Arnel R. (63G),  
Ames  
Hallberg, George R. (73EFGM),  
Iowa City  
Haman, A. C. (64QFJ),  
Cedar Falls  
Haney, William (64QAB),  
Iowa City  
Hansen, Peter J. (73CD),  
Orange City  
Happ, Melissa Baker (66QFO),  
Dubuque  
Harmon, Lacy I. (69J),  
Des Moines  
Hartman, Dean (72Q),  
Cedar Rapids  
Hartman, Kenneth A. (69Q),  
Ames  
Hartman, William (64QO),  
Iowa Falls  
Hartwig, Nicholas L. (72FG),  
Lamoni  
Hayek, Bernard (70Q),  
Cedar Rapids  
Hayes, David O. (73QG),  
Des Moines  
Hegmann, Joseph P. (69AFI),  
Iowa City  
Heino, Walden L. (65CE),  
Decorah  
Helgen, Lon E. (71DJ),  
Decorah  
Hendrickson, Thomas R. (69QF),  
Council Bluffs  
Henrickson, Dennis R. (70E),  
Estherville  
Hermanson, Bernard D. (72Q),  
Sumner  
Hermsmeyer, Kent (72FO),  
Omaha, Nebraska  
Herzman, LaVerne C. (62A),  
St. Paul, Minnesota  
Hewett, Gilbert (55AQ),  
Fairfield  
Hinson, Charles (70-0),  
Iowa Falls  
Hintz, Howard W. (60FG),  
Tiffin, Ohio  
Hlvka, Gene (65J),  
Chariton  
Hofer, Robert J. (62C),  
Ames  
Hoff, Darrel (65QC),  
Cedar Falls  
Holst, Tom G. (68QE),  
Cedar Falls  
Hoiste, Daniel P. (73BQJ),  
Oskaloosa  
Holte, Karl E. (61G),  
Pocatello, Idaho  
Holvik, Carl (72QC),  
Ft. Dodge  
Horine, N. Wayne (70QB),  
Iowa Falls  
Horine, Wilbur (72J),  
Nevada  
Houck, Duane F. (72G),  
Nevada  
Hruby, Sister Cynthia (73Q),  
Cedar Rapids  
Hsu, Cheng-Ting (72MB),  
Ames  
Huberty, Sr. Bernice Ann (69Q),  
Sioux City  
Huedopohl, George (68C),  
Callender  
Hunter, David L. (66QBD),  
Nora Springs  
Husted, Betty (73Q),  
Cedar Rapids

## I

Iverson, Ross L. (68QCJ),  
Marshalltown

Gygiel Fred S. 74KH  
D.M.

## J

Jacobson, Robert A. (67C),  
Ames

Jacobson, Ronald (66QC),  
Nevada

Jarial, Mohinder S. (70FO),  
Muncie, Indiana

Jeffries, Virginia (64Q),  
Corydon

Jensen, Erna (68A),  
Des Moines

Jensen, Gary L. (70E),  
Roland

Jensen, Lawrence F. (65Q),  
New Hampton

Jessen, Marvin P. (52FG),  
Des Moines

Jochens, Leroy W. (67Q),  
Dallas Center

Johns, Robert R. (58A),  
Cedar Lake, Indiana

Johnson, Clifford O. (57EFG),  
Dubuque

Johnson, DelRoy E. (68FO),  
Cedar Falls

Johnson, Dennis C. (69C),  
Ames

Johnson, Harold S. (69QE),  
DeWitt

Johnson, Harvey G. (72QDG),  
Forest City

Johnson, Steven M. (72Q),  
Manly

Jones, Glenn E. (68FJ),  
Rockwell City

Jones, Irene M. (73FGQ),  
Grinnell

Jones, John R. (72F),  
Ames

Jorgensen, R. L. (70QFE),  
Exira

Junk, Gregor A. (57CD),  
Ames

## K

Kacena, William J. (66QB),  
Des Moines

Kading, Thomas L. (69QB),  
Brooklyn

Kaiser, Glenn H. (66DG),  
Dows

Kapler, Joseph E. (60FO),  
Dubuque

Karal, Dorothy R. (68Q),  
Cedar Rapids

Karre, Frederick H. (67Q),  
Keokuk

Karsten, Richard A. (68E),  
Milwaukee, Wisconsin

Kaschmitter, Matthew J. (69Q),  
Cedar Rapids

Kaseouru, Larissa (58DG),  
Oak Park, Illinois

Kasper, Joseph E. (65AB),  
Cedar Rapids

Kellerhals, Glen (64AC),  
Stillwater, Oklahoma

Kells, Lyman F. (70CDB),  
LeMars

Kelly, James L. (70QJ),  
Cedar Falls

Kelly, Sister Mary (66QFO),  
Des Moines

Kenkel, Rev. Leonard (64Q),  
West Des Moines

Kersten, Herbert H. (71G),  
Fort Dodge

Kessler, James E. (70FG),  
Newton

Ketman, Henry J. (51B),  
Des Moines

Kimm, Derald E. (73Q),  
Marengo

Kimm, Tae Won (73K),  
Waverly

Kimmel, Ronald G. (71F),  
Wheaton, Illinois

King, John P. (71QJO),  
Ft. Dodge

Kirkpatrick, Herman H. (68QE),  
Des Moines

Kissack, Richard (67QG),  
Clinton

Kleiss, Lee M. (65C),  
Indianola

Kline, Donald R. (68FGJ),  
Washington

Klockow, Daniel E. (72ABEM),  
Acton, Massachusetts

Knaphus, George (63QG),  
Ames

Knapp, Paul D. (64QF),  
Marion

Knutson, Gary S. (69QC),  
Latimer

Knutson, John F. (72I),  
Iowa City

Knutson, Roger M. (65GJ),  
     Decorah  
 Kopp, Jay P. (71B),  
     Dubuque  
 Kraft, Allen A. (69GO),  
     Ames  
 Kreimeyer, Walter F. (66Q),  
     Ankeny  
 Krockover, Gerald H. (64Q),  
     W. Lafayette, Indiana  
 Krohn, Milbert (65Q),  
     Spirit Lake  
 Krska, Melvin (56CD),  
     Sioux City  
 Kuennen, Sr. M. Cecelia (65B),  
     Sioux City  
 Kunzman, Charley B. (49FG),  
     Selma  
 Kyles, Bruce (71J),  
     Bettendorf

**L**

LaMotte, Clifford E. (70G),  
     Ames  
 Landers, Jr., Roger Q. (62GJ),  
     Ames  
 Landry, Mrs. Raymond (64FG),  
     Maynard  
 Lange, Allan E. (60AB),  
     Los Angeles, California  
 Lange, Donald H. (69EJ),  
     Davenport  
 Langr, Donald N. (72CD),  
     Ft. Dodge  
 Larson, Howard A. (70Q),  
     Roland  
 Larson Terriane M. (72Q),  
     Dayton  
 Larson, William L. (73QM),  
     Ames  
 Laser, Kenneth D. (70GOF),  
     Bloomington, Indiana  
 Lee, Dennis M. (66Q),  
     Charles City  
 Leiran, Richard (61QF),  
     Geneva  
 LeMaire, Sr. M. Charmaine (60BC),  
     Cedar Rapids  
 Levorson, Calvin O. (69E),  
     Riceville  
 Lewiston, Harley (67QFG),  
     Randall  
 Lim, Leonardo (68C),  
     Hiawatha

Lindsay, Charles M. (63QA),  
     Cedar Rapids  
 Llewellyn, Jeffrey B. (71GJ),  
     Ottumwa  
 Lock, Sister Donna (73D),  
     Clinton  
 Lorkovic, Hrvoje (72-0),  
     Iowa City  
 Lowell, Mrs. C. D. (64QFG),  
     Fairfield  
 Lucas, Gene A. (65FI),  
     Des Moines  
 Luebbert, Jr., William C. (70QB),  
     Muscatine  
 Lundy, Harvey I. (59QB),  
     Estherville  
 Lyon, David L. (66JF),  
     Mt. Vernon

**M**

Maatman, Russell (64C),  
     Sioux Center  
 Macior, Lazarus W. (65G),  
     Akron, Ohio  
 Mack, Sr. Mary Janela (64QF),  
     Waterloo  
 Magrane, George (65Q),  
     Ottumwa  
 Main, Stephen (73GJ),  
     Waverly  
 Mairs, James D. (57QJ),  
     Marshalltown  
 Marsh, Marilyn (71Q),  
     Hornick  
 Martin, Elwood M. (56FJ),  
     Laurel, Maryland  
 Marty, Wayne G. (60FJ),  
     LeMars  
 Matisheck, Peter H. (57DG),  
     Charles City  
 Mauseth, Harry A. (60QJ),  
     Iowa City  
 May, Sister Marilyn (67Q),  
     New Hampton  
 McCallum, Curtis E. (59Q),  
     Newhall  
 McClure, Barbara (71Q),  
     West Des Moines  
 McCormick, G. R. (69E),  
     Iowa City  
 McCoy, James E. (64QB),  
     Des Moines  
 McDonald, Ruth (73Q),  
     Union

- McGlothlen, Gerald O. (61DO),  
Hudson
- McKean, Sr. Mary Gretchen (64F),  
Davenport
- McKusick, Marshall (61J),  
Iowa City
- McManus, Sr. Margaret Ann (59FG),  
Cedar Rapids
- McManus, Marianne L. (72I),  
Ames
- McMullen, Lee Dennis (73JM),  
Coralville
- McMurray, Othie R. (60ABE),  
Ankeny
- McVey, Gary (73QG),  
Fort Madison
- Mennenga, Aldert (66FOO),  
Sioux Center
- Menneke, Michael (69FJ),  
Davenport
- Metcalf, Norah F. (72QO),  
Iowa City
- Metcalf, W. K. (70QO),  
Iowa City
- Middleton, Vona K. (66QD),  
Boise, Idaho
- Miller, Francis M. (65B),  
Dubuque
- Miller, Loren B. (64FGJ),  
Tipton
- Mineart, Ernest D. (66QF),  
Norwalk
- Mitchem, Ray E. (69JFG),  
Union
- Moe, Orion (67Q),  
Cherokee
- Moffatt, David J. (70QO),  
Iowa City
- Moninger, William R. (72B),  
Cedar Rapids
- Moon, Wilson T. (68J),  
W. Des Moines
- Moorcroft, William H. (72IO),  
Decorah
- Moore, Joe R. (69Q),  
Davenport
- Moore, William J. (73Q),  
Iowa City
- Moorman, Robert B. (62F),  
Ames
- Morris, Jennifer E. (72GQ),  
Goldfield
- Morrison, Gary C. (67G),  
Indianola
- Mortimore, Betty W. (65-O),  
Lamoni
- Mosher, G. Wayne (70BG),  
St. Ann, Missouri
- Mouw, Ralph J. (51A),  
Orange City
- Muehl, Mary K. (72Q),  
Renwick
- Muench, Loren O. (63I),  
Ames
- Muller, Elsie (56A),  
Sioux City
- Murphy, Donald (63QC),  
West Des Moines
- Murphy, Francis H. (63Q),  
Kanawah
- Myers, Hugh I. (63FO),  
Fairfield
- Myers, James D. (72)  
Ames
- ## N
- Naylon, Michael (66QJ),  
Minneapolis, Minnesota
- Nelson, David T. (54B),  
Decorah
- Nelson, Robert W. (68QG),  
Cedar Falls
- Nervig, Richard (70Q),  
Sibley
- Neumann, Sr. M. Marguerite (58D),  
Dubuque
- Nevins, Donald J. (71GD),  
Ames
- Newell, Darrell E. (58AB),  
Yorkville, Illinois
- Newton, John M. (58CD),  
Clinton
- Nielsen, Larry R. (66Q),  
Webster City
- Niemann, David (72G),  
Elmwood Park, Illinois
- Nordall, Shirley (67),  
Breckenridge, Minnesota
- Nordenson, Craig D. (64QB),  
Dubuque
- Nordquist, Gerald (72K),  
Iowa City
- ## O
- Ohlemeyer, Richard (65FGJ),  
Brighton
- Ohlendorf, Vernon L. (70QB),  
Muscatine

Olson, Dale W. (69B),  
Cedar Falls  
Olson, Harold W. (66QEJ),  
Swedesburg  
O'Toole, Sister Mary C. (73CD),  
Sioux City  
Otten, John D. (68B),  
Mason City

## P

Palm, Harry (65Q),  
Lake City  
Palmer, Barron M. F. (52CO),  
Hammond, Indiana  
Parker, David S. (66FO),  
Clinton  
Patik, Sr. Claire Marie (66QG),  
Davenport  
Peak, Geoffrey (69QG),  
Grinnell  
Pehrson, Theima (67Q),  
Indianola  
Pendgraft, William L. (69FGJ),  
Council Bluffs  
Penney, John R. (64Q),  
Mason City  
Perrin, Sharon (70QC),  
Bondurant  
Peterman, Gerald D. (67QE),  
Denison  
Petersen, Peter (55FJ),  
Davenport  
Peterson, David T. (61C),  
Ames  
Peterson, Ellen R. (61-O),  
Burlington  
Peterson, Grant (64QC),  
Marshalltown  
Peterson, Margaret S. (61FO),  
Mason City  
Peterson, Marvin (61EG),  
Larchwood  
Pflaum, Ronald T. (54C),  
Iowa City  
Phye, Gary (73I),  
Ames  
Pierce, David M. (72IO),  
Mt. Vernon  
Pietsch, Paul E. (68x73E),  
Cedar Falls  
Pippert, David L. (62D),  
Fayette  
Pizzini, Edward L. (73Q),  
Iowa City

Platt, William J. (70FJO),  
Iowa City  
Possehl, Carl L. (70Q),  
Floyd  
Powell, Curtis G. (72J),  
Guthrie Center  
Prager, Henry J. (72K),  
Lamoni  
Prior, Jean Ellen (66E),  
Iowa City  
Prior, Jr., Stanley J. (69E),  
Coralville  
Privett, James E. (70CD),  
Sioux City  
Prokopov, Theodore S. (68C),  
Fayette

## R

Radakovich, Nick (71Q),  
Indianola  
Rasmussen, Edward H. (67Q),  
Newton  
Rathert, Harold E. (65Q),  
Des Moines  
Rausch, Clair (65QF),  
Iowa City  
Real, Sister Cathleen (59A),  
Davenport  
Rebertus, Donald G. (64x73BE),  
Oskaloosa  
Rees, Don W. (61QF),  
Delhi  
Rehmann, Sister Mary (66QF),  
Davenport  
Reida, Lydia (69Q),  
Grinnell  
Rex, John (56A),  
Fulton, Missouri  
Richards, Mary Seitz (72GJ),  
Webster, Texas  
Rila, C. Clinton (63C),  
Mt. Pleasant  
Rinas, Bruno S. (68Q),  
Marion  
Ring, Daniel A. (70FJ),  
Marshalltown  
Ritchie, Alfred E. (63FG),  
Ames  
Robinson, Wm. H. (68EJ),  
Waterloo  
Rodgers, Sam (65QF),  
Ottumwa  
Rogers, Walter (73IO),  
Cedar Falls

- Rolek, Dennis F. (730J),  
 Des Moines  
 Ronat, Elizabeth A. (67B),  
 Grimes  
 Roosa, Dean (67Q),  
 Goldfield  
 Rosenberry, Paul E. (72K),  
 Ames  
 Rosenfeld, George A. (58E),  
 Billings, Montana  
 Rothfus, L. J. (28B),  
 Des Moines  
 Rowland, Gerald C. (49QCA),  
 Clarinda  
 Rulon, Russell (64-O),  
 Decorah  
 Rundell, Harold L. (56F),  
 Sioux City  
 Russell, Kenneth R. (69J),  
 Ames  
 Ryan, Bill Ray (66GJ),  
 Boone
- S**  
 Sachson, Steven M. (73I),  
 Sioux City  
 Sadler, Emory W. (70I),  
 Des Moines  
 Salyer, Larry D. (64Q),  
 Cedar Falls  
 Sandin, Roger J. (62AC),  
 Des Moines  
 Sando, Kenneth M. (72CB),  
 Iowa City  
 Sandquist, Robert (70QJ),  
 Newton  
 Scavio, Michael J. (72I),  
 Fullerton, California  
 Schabillion, George E. (57EG),  
 Vicksburg, Mississippi  
 Schaefer, Joseph A. (65QB),  
 Bellevue  
 Schaeffer, Gene (72BE),  
 Story City  
 Schepler, Herman (71MB),  
 Dubuque  
 Scheppers, Gerald J. (64C),  
 Platteville, Wisconsin  
 Scherb, Paul J. (48FG),  
 Waverly  
 Schmidt, Donald (60Qg),  
 Fitchburg, Massachusetts  
 Schmidt, William H. (57F),  
 Iowa Falls
- Schmitz, Sister Marianne (64QC),  
 Sioux City  
 Schulz, Rudolph W. (71I),  
 Iowa City  
 Schwartz, Esther A. (57A),  
 Mason City  
 Schwirian, Patricia (62QI),  
 Columbus, Ohio  
 Seip, Harrison (59QBC),  
 Sigourney  
 Semken, Holmes A. (68EF),  
 Iowa City  
 Senich, Donald (66CE),  
 Washington, D.C.  
 Shafer, Wesley J. (48BF),  
 Fairfield  
 Shaffer, Alfred (70MAI),  
 West Covina, California  
 Shaffer, Shirley (70I),  
 West Covina, California  
 Shanks, Howard R. (57BE),  
 Ames  
 Sheafor, Patrick J. (72I),  
 Cleveland, Ohio  
 Sheil, Lester C. (59FO),  
 Decatur, Illinois  
 Sheldon, Daniel S. (73Q),  
 Iowa City  
 Shepherd, James A. (71D),  
 Iowa City  
 Shepherd, Thomas A. (69Q),  
 Ft. Dodge  
 Shipman, William (73K),  
 Waverly  
 Shore, William S. (72CDH),  
 Davenport  
 Shutler, Jr., Richard (73H),  
 Iowa City  
 Sick, Melvin (69BC),  
 Ft. Dodge  
 Sidles, Paul H. (48B),  
 Ames  
 Sievert, R. Ben (66QC),  
 Lake City  
 Silverio, Catherine (41I),  
 Bristol, Connecticut  
 Simpson, Robert J. (66-O),  
 Cedar Falls  
 Skrdla, Willis (58G),  
 Ames  
 Slater, Carmon (73QEJ),  
 Ames  
 Slaymaker, Vernon (67QC),  
 Ottumwa

- Smith, Daryl D. (65Q),  
Cedar Falls
- Smith, Ian M. (68DO),  
Iowa City
- Smith, Judith C. (72QJ),  
Oskaloosa
- Smith, Leonard M. (71QF),  
Broken Bow, Nebraska
- Smith, Marilynn L. (66QG),  
Petoskey, Michigan
- Smith, Marvin L. (61F),  
Sioux City
- Smith, Mary Ann (69QE),  
Lamont
- Smith, Paul E. (58F),  
LaJolla, California
- Smith, Virgil E. (70Q),  
Waterloo
- Snyder, Harry E. (64D),  
Ames
- Snyder, Herbert H. (67AB),  
Carbondale, Illinois
- Sorenson, Paul D. (61GJ),  
DeKalb, Illinois
- Southard, Wendell H. (60C),  
Des Moines
- Sowers, Darrell (64Q),  
Cresco
- Spaziani, Eugene (70FO),  
Iowa City
- Spellman, William E. (72K),  
Cedar Rapids
- Spera, Agnes (64QC),  
Council Bluffs
- Spratt, Roger L. (73FG),  
Ames
- Stark, Kenneth H. (72EH), ✓  
Riceville
- Statler, S. S. (64Q),  
Westchester
- Stevenson, Nancy (59DO),  
Piscataway, N. J.
- Stewart, James A. (67Q),  
Oskaloosa
- Stewart, Jr., Robert M. (58AB),  
Ames
- Stockdale, Harold J. (63F),  
Ames
- Stout, Sue (71BC),  
West Des Moines
- Straffin, Dean (71HE), ✓  
Fairfield
- Strang, Dennis L. (66Q),  
Sigourney
- Strasser, Elizabeth (59FG),  
Des Moines
- Stratton, Donald B. (73O),  
Des Moines
- Strike, Stan (70QE),  
Independence
- Strimple, Harrell L. (66E),  
Iowa City
- Struthers, Lee D. (68Q),  
Sioux City
- Sturtevant, Floyd (54QCD),  
Ames
- Swagler, Roger M. (72K),  
Des Moines
- Swanson, Robert F. (61QD),  
Elmhurst, Illinois
- Sweedy, Peter H. (70QB),  
Moline, Illinois
- T**
- Tabatabai, M. Ali (73DJ),  
Ames
- Tardy, Dwight C. (71BC),  
Iowa City
- Taylor, George T. (70F),  
Des Moines
- Thoburn, W. C. (66x73B),  
Redwood Valley, California
- Throckmorton, Adel M. (63IJ),  
Ames
- Thuente, Sister Stella R. (68QC),  
Aurora
- Thurman, R. Gary (72C),  
Omaha, Nebraska
- Tilleros, Gary D. (69QD),  
Bettendorf
- Tinderholt, Albert C. (68BA),  
Greene
- Tjaden, David H. (66QFG),  
Waterloo
- Tjostem, John (69GO),  
Decorah
- Tock, Richard W. (71MJ),  
Iowa City
- Tollari, Joseph A. (70QFO),  
Dubuque
- Toubes, Joseph A. (72EQ),  
Des Moines
- Townsend, Ronald D. (71Q),  
Arlington Hts., Illinois
- Trahanovsky, Walter S. (65C),  
Ames
- Trumpy, Franklin D. (73B),  
Ankeny

Trytten, George N. (73ABMQ),  
Decorah  
Tucker, Joan Froberg (49G),  
Iowa City

**U**  
Uglum, Kenneth L. (49C),  
Mt. Pleasant, Michigan  
Unruh, Roy D. (68QB),  
Cedar Falls

**V**  
Vander Zee, Delmar (70FGO),  
Sioux Center  
Vanous, Steven L. (68QEF),  
Waterloo  
Vaughan, Christopher S. (72JGF),  
San Jose, Costa Rica  
Veldhuis, G. Henry (69Q),  
Sheldon  
Versteeg, Wilbur J. (69Q),  
Britt  
Vilmain, Frank (66B),  
Cedar Falls  
Vinson, Donald R. (66QC),  
Burlington  
Voertman, Robert F. (72K),  
Grinnell  
Voigts, Larry (62FG),  
Clarksville  
Volker, Roger (59Q),  
Ames  
Von Yeast, Claflin J. (63C),  
Cedar Rapids  
Vrba, Dennis C. (66QG),  
Mason City  
Vredenburg, Larry (64DE),  
Denver, Colorado

**W**  
Wacha, Richard S.  
Des Moines  
Wagner, Sister Lois (71DFGO),  
Dubuque  
Waite, Paul J. (66ABEJ),  
Ankeny  
Walker, Leila J. (73)  
Los Angeles, California  
Walmsley, James (67B),  
Webster City  
Waltz, Sondra (68xQ),  
Norwalk  
Warner, Patricia (68Q),  
West Des Moines

Warner, Wesley F. (70Q),  
Algona  
Warters, Mary Ellen (66FJ),  
Des Moines  
Watkins, Edgar H. (68Q),  
Canoga Park, California  
Webb, Morgan C. (66FJ),  
Sioux City  
Weber, Marilyn J. (66QE),  
Ames  
Wechsler, Monroe S. (71BM),  
Ames  
Wehner, Wanda (66QD),  
Cedar Falls  
Wehr, Larry (65FG),  
Carbondale, Illinois  
Weiss, Ronald D. (64Q),  
Denison  
Wells, Lewis B. (57FG),  
Clarinda  
Welp, Robert R. (64BEJ),  
Ft. Dodge  
Welsh, Stanley L. (59G),  
Provo, Utah  
Wendt, Richard H. (67I),  
Pierre, South Dakota  
Wengert, Harold (67Q),  
Cedar Falls  
Weselmann, Robert (67F),  
Northwood  
West, David N. (64DJ),  
Iowa Falls  
Whelchel, Stanley (64Q),  
Cedar Falls  
Whitaker, Thomas (58OJ),  
Ft. Madison  
Whitcomb, Jr., Roger F. (66FJ),  
Shelbyville, Indiana  
White, Bernard (64D),  
Ames  
White, Thomas (68QD),  
LaPorte City  
Widmer, J. M. (35DO),  
Marion  
Wildman, Ruth B. (71QG),  
Ames  
Wiley, Russell (68CD),  
Cedar Falls  
Wilhelm, Harley A. (61C),  
Ames  
Williams, Marion D. (51G),  
Nashville, Tennessee  
Wilson, Robert (63QC),  
Belmond



Wiltshire, C. Thomas (65-0),  
Canton, Missouri  
Windsor, Charles W. (69Q),  
Ames  
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