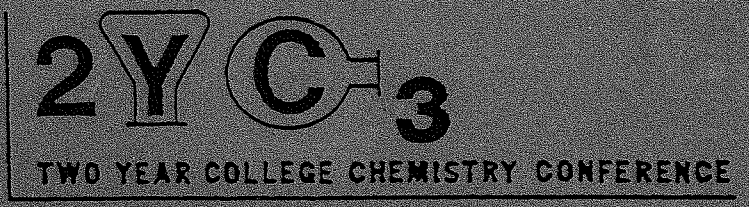
THE 86TH CONFERENCE

BEYOND THE LECTURE



Miami-Dade Community College, South Campus

Miami, Florida

April 26 and 27, 1985

DIVISION OF CHEMICAL EDUCATION
AMERICAN CHEMICAL SOCIETY
1985 ROSTER OF
COMMITTEE MEMBERS

Chairman	Jay Bardole, Vincennes University Junior College Vincennes, IN 47591-9986 (812 - 885-4372) Home 812 - 882-5272
Immediate Past Chair	Marion Baker, Central Piedmont Community College P.O. Box 35009, Charlotte, NC 28235-5009 (704-373-6462)
Chair Elect	Onofrio Gaglione, New York City Technical College, 300 Jay St., Brooklyn, NY 11201 (212-643-3488)
Secretary/ Editor	Ethelreda Laughlin, Cuyahoga Community College, Wester Campus, Parma, OH 44130 (216-845-4000) Home (216-884-0546)
Treasurer/ College Sponsors	John Clevenger, Truckee Meadows Community College 7000 Dandini Blvd. Reno, NV 89512 (702-673-7221)
General Membership Chair	Mike Knoll, Vincennes University Junior College Vincennes, IN 47591-9986 (812-885-4529)
Industrial Sponsors	Elliott Greenberg, Prairie State College P.O. Box 487, Chicago Heights, IL (312 756-3110)
Past Chairs	Tamar Susskind, Douglas Bond, Katherine Weissmann, Paul Santiago, John Mitchell, William Griffin, Curtis Dhonau, Cecil Hammonds, Ethelreda Laughlin.

THE EIGHTY-SIXTH TWO-YEAR COLLEGE CHEMISTRY CONFERENCE

April 26-27, 1985

Miami-Dade Community College, South Campus
11011 SW 104 St., Miami, FL 33176
(In conjunction with the 189th ACS National Meeting, April 28 - May 3)

CONFERENCE THEME:	Beyond The Lecture
PROGRAM CHAIR:	Wendell Massey, Florida Junior College at Jacksonville, 4501 Capper Road, Jacksonville, FL 32218 phone: (904) 757-6441
LOCAL ARRANGEMENTS:	Larry Bray, Miami-Dade Community College, South Campus (305) 596-1157

Friday Morning, April 26, 1985

9:00 - 10:00	Committee on Chemistry in the Two-Year College - Building 2, Room 2111
9:00 - 12:00	Registration and Exhibits - Building 7, Room 7218
10:30 - 12:00	Computer Workshop - Building 2, Room 2212 "Apple Orc" Bill Halpern, University of West Florida Pensacola, FL 32514

Friday Afternoon, April 16, 1985

1:00 - 5:00	Registration and Exhibitts - Building 7, Room 7218
12:45 - 12:55	Opening - Jay Bardole, Chair 2YC$_3$ - Building 2, Room 2111 Welcome Dr. William Stokes, Miami-Dade - South Campus Campus Vice President
12:55 - 1:00	Introduction to Program Wendell Massey, Program Chair, Presiding
1:00 - 1:30	"Applying a Learning Theory to Preparatory Chemistry — The Gagne Approach to Learning" Alan Sherman, Middlesex County College, Edison, New Jersey 08818
1:30 - 2:00	"Chemistry Students: How They Think Determines How They Learn" Baird W. Lloyd, Mercer University Atlanta, Atlanta, GA 30341
2:00 - 2:30	"What Are They Thinking About? Understanding Student Errors" Barbara Rainard, Community College of Allegheny County, Pittsburg, PA 15212
2:30 - 3:00	Coffee Break and Exhibits
3:00 - 3:30	"Teaching - Problem Solving in Chemistry" Ralph K. Birdwhistell, University of West Florida Pensacola, FL 32514
3:30 - 4:00	"One Authors Thought on General Chemistry" Ken Whitten University of Georgia
4:00 - 4:30	"Teaching Writing from an Industrial Perspective" Howard Kanare, 1400 West Elmadle, Chicago, IL 60660
4:30 - 5:00	"Depth of Field or Shutter Speed - Should We Teach a Few Topics in Depth or Many Quickly?" Wendell Massey, Florida Junior College at Jacksonville, Jacksonville, FL 32218
6:00 - 6:30	Social Hour, Building 7, Room 7218
6:30 - 9:00	Buffet Style Banquet at Miami-Dade Community College Guest Speaker Robert Brasted University of Minnesota Topic "Touring Some Avenues Learning - Free Ways, Toil Roads, and Yellow Brick Paths" Building 7, Room 7218

Saturday Morning, Apirl 27, 1985

9:00 - 12:00	Registration and Exhibits
8:50 - 8:55	Announcements - Opening Remarks Wendell Massey, Program Chair Building 2, Room 2111
9:00 - 9:30	"Reflections on Teaching General Chemistry by Someone Who Never Has" Frank Vellaccio, ACS Organic Chemistry Division, College of the Holy Cross, Worcester, MA 01610
9:30 - 10:00	"Chemistry for Kids" Jeanette Madea, Broward Community College Pompano Beach, FL 33064
10:00 - 10:30	"The Inquiry Alternative in Chemistry Lab" Nancy Konigsber, University of Michigan Ann Arbor, Mich 48109
10:30 - 11:00	Coffee Break and Exhibits
11:00 - 12:00	"Chemistry in the Toy Store" David Katz, Community College of Philadelphia, Philadelphia, PA 19130
12:00 - 1:00	Lunch and Exhibits
1:00 - 1:30	"Reflections on a Decade of Teaching Allied Health Chemistry . . . I've Tried Everything . . . Where Do I Go From Here???" John M. Daly, Chairman of the Committee on Chemical Education for the Health Porfessionals, Division of Chemical Education, ACS
1:30 - 2:00	"Chemistry in the Community - An Alternative Course" Sylvia Ware, ACS
2:00 - 2:30	"Critical Skills and Critical Thoughts" Carl Trindle, University of Virginia Charlottesville, VA 22901
2:30 - Until	Repeat of Computer Workshop Bill Halpern, University of West Florida Pensacola, FL 32514

AGENDA

COMMITTEE MEETING
FRIDAY, APRIL 26, 1985
9:00 A.M.
BUILDING 2, ROOM 2111
MIAMI-DADE COMMUNITY COLLEGE

TAB		
	I.	INTRODUCTION
1	II.	APPROVAL OF MINUTES, SAN DIEGO COMMITTEE MEETING
	III.	REPORTS
2		A. CHAIR - JAY BARDOLE AND MARION BAKER
		B. MIAMI MEETING REPORT - WENDELL MASSEY AND LARRY BRAY
		C. MEMPHIS MEETING PLANS - PAULA BALLARD AND JAMES GRAHAM
		D. MEMBERSHIP - MIKE KNOLL
3		E. TREASURER - JOHN CLEVENGER
		F. COLLEGE SPONSORS - JOHN CLEVENGER
4		G. INDUSTRIAL SPONSORS - ELLIOTT GREENBERG
		H. POLICIES AND PROCEDURES - JOHN MITCHELL
		I. PUBLICATIONS - ETHEL LAUGHLIN
5		J. MEETING SITES - JAY BARDOLE
		K. PROGRAMS - LEN GROTZ
		L. WORKSHOPS - SAM CRAWFORD
		M. TEACHING STANDARDS - UNI SUSSKIND
6		N. TASK FORCE ON ACS INVOLVEMENT IN TWO-YEAR COLLEGES - BILL MOONEY UNI SUSSKIND KATHY WEISSMANN
7		O. ACS OFFICE OF TWO-YEAR COLLEGES - JIM BRADFORD
	IV.	OLD BUSINESS
	V.	NEW BUSINESS
8	VI.	INFORMATION ITEMS

2YC$_3$

TWO YEAR COLLEGE CHEMISTRY CONFERENCE

DIVISION OF CHEMICAL EDUCATION

AMERICAN CHEMICAL SOCIETY

Friday, October 19, 1984
San Diego City College, San Diego, CA
Open meeting of the Committee on Chemistry in the Two-Year College

Attendees:

Marion Baker	Central Piedmont CC	Charlotte, NC
Jay Bardole	Vincennes U. Jr. College	Vincennes, IN
Victor Berner	N.M. Jr. College	Hobbs, NM
Douglas Bond	Riverside City College	Riverside, CA 92506
Jim Bradford	ACS Liason	Washington, DC
Carolyn Collins	Clark County CC	Las Vegas, NV 89030
Curt Dhonau	Vincennes U. Jr. College	Vincennes, IN 47591
Dick Gaglione	NYC Tech. College	Brooklyn, NY
Elliott Greenberg	Prairie State College	Chicago Heights, IL 60411
Harlan P. Hamlos	San Juan College	Farmington, NM 87401
Ed Heath	Southwest Texas Jr. C.	Uvalde, TX
Phyllis L. Henderson	Truckee Meadows CC	Reno, NV 89512
Robert E.L. Ingram	Arizona Western College	Yuma, AZ 85364
David Klein	Kansas City, Kansas, City College	KC, Kansas
Alan Kruse	Pima CC	Tucson, AZ
Ethelreda Laughlin	Cuyahoga CC, Western Campus	Parma, OH 44130
Pat Lee	Bakersfield College	Bakersfield, CA
John Mitchell	Tarrant County Jr. Coll., NE	Hurst, TX 76054
Wm. T. Mooney, Jr.	El Camino College	via Torrance, CA 90506
Ruth Sherman	Los Angeles City Coll.	Los Angeles, CA 90065
Wanda Sterner	Cerritos College	Norwalk, CA 90650

Chair Marion Baker opened the meeting at 10:00 AM. The participants at the session introduced themselves.

Ms Baker had several announcements: The next biennial will be held in Bozeman, Montana. Although it will not be one of our 2YC$_3$ sessions, the membership will play an active role.

There will be an up-to-date list of committee members for the next booklet to be prepared for the executive committee by Jim Bradford. Marion will prepare the list.

The catalyst awards deadline for nominations is February 1, 1985. MsBaker encouraged the members to present nominations.

Dick Gaglione moved that minutes of the Storrs, Connecticut, meeting be approved. Vic Berner seconded the motion.

Report of Storrs meeting: Marion Baker counted 70 2YC$_3$ participants at Storrs.

Elliott Greenberg reported that the booth at Storrs made money on sales items. The jacket is left from the meeting. It will be raffled at the Waukeshau meeting.

San Diego Meeting: Vic Berner predicted a good meeting.

Up-coming sessions:
The Miami meeting will be held in conjunction with the ACS national convention. $2YC_3$ plans have been finalized for the meeting.

Wuakeshau meeting, May 24, 25, 1985: Len Grotz is working out the details.

Membership: Jay Bardole reported that dues notices for 1985 will soon be mailed.

Jim Bradford asked if there is any way to get the $2YC_3$ dues on the national ACS mailing. Curt Dhonau pointed out that many of the two-year college chemistry teachers belong neither to the Division nor to the ACS.

Ed Heath said that a listing in the national dues list may be a way of publicizing the committee.

Wanda Sterner said that a division is on the list only after one is already a member. This is not a way of advertising.

Industrial Sponsors:
Elliott Greenberg reported that 28 industrial sponsors renewed and 4 declined. There are three new sponsors as of last summer. Elliott said that we need five new sponsors for each meeting to take care of non-renewals.

Doug Bond asked who the four industrial sponsors non-renewals are. He suggested a boycott by the $2YC_3$. Elliott will report the names.

Policies and Procedures:

John Mitchell said that the policies and procedures were adopted by a vote of 33 of the 35 committee members.

Marion Baker pointed out that the interim method for the selection of a chair-elect for 1986 will have to be used since the policies call for a December selection and there is too little time for implementation of the new method this year. She suggested a candidate from the west or the south to balance the high number of past chairpersons from the midwest.

The new policies and procedures call for two past chair names to be deleted from the list. There is also a provision for deletion because of resignation, etc. Since Doug Bauer died in February his name will be one of the two deleted. The other will be that of Bill Mooney.

Jay Bardole asked about terms of present officers. They are as follows:

Ethelreda Laughlin, secretary/editor.....Dec, 1986
Mike Knoll, Membership .....Dec, 1986
John Clevenger, treasurer.....Dec, 1985
Elliott Greenberg, industrial sponsors.....Dec, 1985

The terms may be renewable.

The Distillate
Jim Bradford asked for an article by a student for the next issue of the Distillate Bill Mooney suggested that the article be from a student who already has the baccalaureate degree.

Future Meetings:
Carolyn Collins , program chair for the Reno meeting in December, 1985, asked for any cartoons, etc., to add to the humor collection. Send your cartoons to John Clevenger.

Jay Bardole, in charge of meeting sites, said that the spring ACS meeting has been moved from Atlantic City to New York City. Dick Gaglione reported that Ed Zoranski, program chair for the meeting, has no plans to date but would have difficulty if the meeting is not in Atlantic City . If the meeting will be moved to New York, Ed will assist the program chairman or act as co-chairman.

Bill Mooney suggested that the $2YC_3$ meeting be held at Nassau, Suffolk or Westchester. Robert Ingall moved that we change the meeting place to the New York City area. Doug Bond seconded the motion. Marion Baker suggested that Ed Zoranski be put in charge of a workshop at the N.Y. meeting.

There was much discussion about the 25th anniversary meeting date. Bill Mooney said that it should be held in the fall. No decision was made.

Biennial meetings
The meeting of the summer, 1986, will be held at Bozeman, Montana.
The 1988 meeting will be at Purdue.

The consensus was to hold the $2YC_3$ activiites during one afternoon, as at Storrs.

1985 Invitational conference
Jim Bradford announced that the Education Conference, sponsored by the Division, will be held at the end of the year. $1200 is requested from the $2YC_3$.

The conference will include discussions about
in-service preparation of teachers
how can you support comprehensive curricula
underprepared students
articulation
resources for equipment and care of equipment
part-time teaching

Doug Bond moved to include $1200 in the $2YC_3$ budget for the invitational meeting and, if affordable, do the same for the following year.
Carolyn Collins gave the second.
The attendees approved the motion.

The meeting adjourned at 11:00 AM

Ethelreda Laughlin, secretary/editor

LOOKING BACK ON 2YC3'S YEAR

We've had a good year. We've had our usual four regional meetings, each with its own special flair. Our 82nd meeting was held at Tarrant County Junior College in Hurst, Texas on March 2nd and 3rd. One hundred and twenty-two participants from twenty-three states had Edith Bartley, John Mitchell, Floyd King and Ralph Logan to thank for a stimulating meeting, "Computers: Friend or Foe?". We were treated to a Texas barbecue an Omnimax presentation of the Great Barrier Reef. Our 83rd meeting, held at St. Louis Community College at Florissant Valley, on April 6 and 7, 1984 was organized by Ralph Burns with help from Jack Ballenger, Al Byington, Tom Mines and Ax Kramer. One hundred and ten participants benefitted from technical sessions on instructional strategies, chemistry content and chemical demostrations. Hands-on workshops on microcomputers and gas chromotography rounded out the two-day meeting. Our 84th meeting was held in conjunction with the 8th Bienniel Conference on Chemical Education, August 5 thru 10. Uni Susskind organized a symposium, "Teaching Chemistry at a Two Year College: Is it unique?" Eleven of our members, led by Elliott Greenberg, planned and staffed a booth at the exhibit in Storrs. Our 85th meeting was held at San Diego City College on October 19 and 20. It was organized by Jim Burton of San Diego City College and Vic Berner of New Mexico Junior College in Hobbs, New Mexico. Technical sessions dealt with computers, undergraduate research, teaching skills and a hands-on symposium on computer/instrument interfacing.

2YC3 continues to feel blessed by the interest and support shown by the ACS office of College Chemistry in the person of Jim Bradford of the ACS staff. Two issues of the 2YC Distillate: A Newsletter for Two Year College Chemistry Educators have been published this year.

This has been a year for improving our image. A logo has been devised and applied to stationery, the Newsletter, a membership brochure, banners [made by Trudi Slapar] and, would you believe, hats. Three 2,000-copy issues of the 2YC3 Newsletter were produced during the year.

Plans are underway for a silver anniversary celebration in 1986-87, when 2YC3 will look back on its past and make plans for its future.

The ad-hoc committee on policies and procedures, ably led by John Mitchell, and set in motion two years ago by Doug Bond and Uni Susskind, completed their work and, for the first time, 2YC3 will follow a printed and published set of policies and procedures. The first use of the new document was to guide the

selection of our chair-elect for 1985. Onofrio [Dick] Gaglione of New York City Technical College in Brooklyn was elected by the executive committee to fill this position.

2YC3 continues to be one of the best bargains around. Our 400 members pay annual dues of $6 and this admits them to four conferences and provides them with the newsletters. Our 36 industrial sponsors and ~~100~~ college sponsors help us meet our obligations so that membership and meeting expenses can be kept to a minimum. We continue to attract and solicit the involvement of high school teachers in our meetings and we normally have between twenty and thirty high school teachers in attendance.

We look forward next year to the able leadership of Jay Bardole of Vincennes University, a long-time 2YC3 leader and editor.

Marion H. Baker

MHB/mc

February 28, 1985

FINANCIAL REPORT FOR COCTYC

From: 1/1/84 To: 12/31/84

Credits

Balance to 1/1/84	$ 4015.33
College sponsors	1300.00
Industrial sponsors	3550.00
Individual members	936.00
DIVCHED	2140.00
Interest	406.42
Misc.	2431.91
	14779.66

Debits

Travel		5816.90
Chair	$ 1869.77	
Chair-elect	850.00	
Past chair	850.00	
Editor	777.65	
Indus. spon.	148.00	
(702.00 paid in 1985)		
Treas/college	821.48	
Membership	000.00	
Publications		433.52
Postage		299.25
Phone		73.45
Chem. Ed.		2140.00
Office supplies		70.08
Printing		248.24
Misc.		1876.17
		10457.61

Balance $4322.05

From: 1/1/85 To: 2/28/85

Credits	
Balance forward	$ 4322.05
College sponsors	1800.00
Industrial sponsors	275.00
Individual membership	1439.00
DIVCHED	2000.00
Interest	115.31
	9951.36
Debits	
Travel (from 1984)	702.00
Office supplies	28.00
Misc.	200.00
	930.00
Balance	$ 9021.

CERTIFICATES OF DEPOSIT

1. Nevada Savings $2,835.55
   #7085538-2
   1 year 11.4%
   Interest paid to checking $27.35

2. Western Savings (AZ)
   According to Smith Decker these have matured.
   #903-636554-3 Balance $5,484.90
   2.5 yr

   #903-636586-5 Balance $2,193.17
   2.5 yr

   These funds have been re-invested in two equal one year C.D.'s at Nevada Savings.

COLLEGE SPONSORS

We had a total of 135 college sponsors for 1984. As of Feb.28, 1985, 90 have renewed for 1985. I will have a current list available at the meeting.

John V. Clevenger

John V. Clevenger
Treasurer/College Sponsor Chair

Updated Report On Storrs Exhibit

The merchandise (necklaces and $2YC_3$ caps) remaining from our Storrs Exhibit was offered for sale at the San Diego Conference where $286 in additional revenue was realized. We now show a net profit of $261.39, and still have about $115 in ~~saleable~~ merchandise plus a $2YC_3$ jacket. The remaining merchandise will be offered for sale at the Miami Conference. The jacket and prizes remaining from Storrs will be offered at the Waukesha Conference in a money-making raffle.

$261.39
+ $115.00 Revenue from Miami Conference Sales
$376.39 total Profit to date 4/30/85

Proceeds from raffle of Jacket @ Waukesha + 44.50
$420.89 total Net Profit (Final Report) from Storrs Booth

INDUSTRIAL SPONSORS

In recent years it has become increasingly difficult to effect renewal of Industrial Sponsorships. This year was no exception and many phone calls were necessary in order to retain our Sponsors. At the close of the 1983-84 academic year, we had 39 Industrial Sponsors. Of this number, 32 Sponsors have renewed for the current year, 6 have cancelled, and we have recruited 5 new Sponsors. This leaves us with a current total of 38 paid up Sponsors, a net loss of one from last year.

At this point I am quite relieved that we are only down one Sponsor from last year. We are still showing a loss of about thirteen Sponsors from our peak enrollment three years ago. However, due to the $25 increase in the Industrial Sponsor fee this year, our revenue matches that realized during our peak enrollment.

Needless to say, recruiting efforts will continue in the hope of reversing the trend of the last three years. I have already gone through the file of former Sponsors but, so far, have only obtained one renewal from this group.

Mr. Jeff Hormeier
Chemistry Editor
Academic Press, Inc.
College Division
Orlando, FL 32809

Ms. Dorothy Nelson
Burgess Publishing Co.
7108 Ohms Lane
Minneapolis, MN 55435

Ms. Cathleen Brennan
Assistant to Manager
Marketing Operations
Harper & Row, Publishers, Inc.
10 East 53rd St.
New York, NY 10022

Mrs. Dolores P. Salerno
Convention Coordinator
Addison-Wesley
One Jacob Way
Reading, MA 01867

Mr. Richard A. Dolan
President
Alltech Associates, Inc.
2051 Waukegan Road
Deerfield, IL 60015

Mrs. Hulda Levin
Houghton Mifflin Co.
1 Beacon Street
Boston, MA 02108

Ms. Sandi Kirshner
Marketing Coordinator
Allyn and Bacon, Inc.
7 Wells Avenue
Newton, MA 02159

Mr. John P. Spancake
Director of Marketing
COMPress
P. O. Box 102
Wentworth NH 03282

Ms. Lisa S. Berger
Textbook Marketing Manager
John Wiley & Sons, Inc.
605 Third Avenue
New York, NY 10158

Dr. E. Jim Bradford
Project Coordinator
Office of College Chem.
American Chemical Society
1155 Sixteenth Street, N.W.
Washington, DC 20036

Ms. Andra Stein
Exhibits Coordinator
College Division
D. C. Heath and Company
125 Spring Street
Lexington, MA 02173

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High School Editor
Journal of Chemical Education
Miami-University-Middleton
4200 E. University Blvd.
Middletown OH 45042

Mr. Rusty Bromley
Marketing Manager
American Scientific Products
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Ms. Althea E. Walker
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Eastman Kodak Company
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Rochester, NY 14650

Ms. Betty Snee
Exhibit Coordinator
Macmillan Publishing Company
866 Third Avenue
New York, NY 10022

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Vice President of Marketing
Brinkmann Instruments Co.
Cantiague Road
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Marketing Manager
Fisher Scientific Company
711 Forbes Avenue
Pittsburgh, PA 15219

Mr. Loring Kutchins
Vice President, Mark. & Sales
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61 S. Lake Avenue, Suite 305
Pasadena, CA 91101

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Brooks/Cole Publishing Co.
555 Abrego Street
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Bound Brook, NJ 08805

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McGraw-Hill Book Company
College Division
13599 Manchester
Manchester, MO 63011

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President
Cross Educational Software
P. O. Box 1536
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Mr. John P. Ryan
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Ace Glass Incorporated
1430 N. W. Boulevard
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College Exhibit Coordinator
Prentice-Hall, Inc.
Sylvan Avenue
Englewood Cliffs, NJ 07632

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Chemistry Editor
Random House, Inc.
201 E. 50th Street
New York, NY 10022

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Buena, NJ 08310

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Director, Program Development
Programs For Learning, Inc.
P. O. Box 1199
New Milford, CT 06776

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Sargent-Welch Scientific Co.
7300 North Linder Avenue
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Mr. E. H. Schramm
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P.O. Box 3608
Oak Brook, IL 60521

Mrs. Regina Reynolds Mulick
Marketing Communications
Whatman Inc.
9 Bridewell Place
Clifton, NJ 07014

2YC3
TWO YEAR COLLEGE CHEMISTRY CONFERENCE
DIVISION OF CHEMICAL EDUCATION
AMERICAN CHEMICAL SOCIETY

November 6, 1984

Dr. Jim Bradford
American Chemical Society
1155 - 16th St., N.W.
Washington, D.C. 20036

Dear Jim:

Marion Baker made several corrections in the minutes. I hope that she sent you a copy. My copy is a xerox and all the changes are not legible. I told her that any and all corrections are fine.

I received a note from Elliott Greenberg that listed the four industrial sponsors who recently cancelled:

Carolina Biological Supply Co.
Prentice-Hall Media, Inc.
The Milne Press
Scott, Foresman & Company

The totals are: 28 renewals + 4 new sponsors = 32 currently paid.

Sincerely yours,

Ethelreda Laughlin

SUMMARY OF FUTURE 2YC$_3$ MEETINGS

UPDATE OCTOBER, 1984

* SCHEDULED
** SUGGESTED SITES/APPOINTMENTS

REGIONS: E- EAST W- WEST S- SOUTH M.W- MID-WEST

ACADEMIC YEAR				
'84-'85	84th - SUMMER * E 8/5-9/84 with 8th Biennial Chemical Education Conference University of Connecticut Storrs, CT 06268	85th - FALL * W 10/19-20/84 San Diego City College San Diego, CA	86th - SPRING * S 4/26-27/85 Miami-Dade CC, South Campus 11011 SW 104 Street Miami, FL 33176 with 189th ACS NAT. (4/28--5/3) '85	87th - SPRING * M.W. 5/24-25/85 University of Wisconsin Waukesha, WI
Program Chair	Uni Susskind, Oakland Com Coll 1900 Featherstone Road Auburn Hts., MI 48057 (311) 852-1000 Ext. 325	Victor Berner New Mexico Junior College Lovington Highway Hobbs, New Mexico 88240 (505) 392-4510 Ext. 261	Wendell Massey Florida Junior College North Campus Jacksonville, FL 32218	Leonard Grotz, University of Wisconsin, Waukesha 1500 University Drive Waukesha, WI 53186 (414) 544-8743
Local Arr. Chair:		Jim Burton, San Diego City Coll (619) 230-2643	Larry Bray, Miami-Dade South	Leonard Grotz and Gary Udovich U. Wisconsin, Waukesha
Ind. Spon. Chair:				Gary Udovich, U. Wisc. Waukesha
Theme:	"CHEMISTRY: A GEM OF A SCIENCE"		BEYOND THE LECTURE	
'85-'86	88th - FALL * S 10/11-12/85 Memphis State University (With joint SE/SW ACS Reg. Meeting) State Technical Institute 5983 Macon Cove Memphis, TN 38134	89th - FALL * W 12/6-7/85 Truckee Meadows Community College 7000 Dandini Blvd. Reno, Nevada 89512	90th - SPRING * E 4/4-5/86 Elizabeth Seton College 1061 N. Broadway Yonkers, NY 10201 with 91st ACS Nat. 4/6-11/86	91st - SPRING * M.W. 4/25-26/86 William Rainey Harper College Palatine, IL 60067
Program Chair:	Paula Balard, Jefferson State Jr. College, Birmingham, AL James Graham, J.C. Calhoun Com. College, Decatur, AL	Carolyn Collins Clark County Community College Las Vegas, NV (702) 643-6060	Patricia Flath Paul Smith College Paul Smiths, NY 12970 (518) 327-6266	William T. Mooney, Jr. El Camino College Via Torrance, CA 90506
Local Arr. Chair:	George Williams (901) 377-4111	John Clevenger, TMCC (701) 673-7221	Sister Lucy Murphy Elizabeth Seton College	Joseph Bauer (312) 397-3000 William Rainey Harper College
Ind. Spon. Chair:				Duane Sell (312)397-3000 Ext.2408 William Rainey Harper College Palatine, IL 60067
Theme:				

SUMMARY OF FUTURE 2YC$_3$ MEETINGS

UPDATE OCTOBER, 1984

* SCHEDULED
** SUGGESTED SITES/APPOINTMENTS

REGIONS: E- EAST W- WEST S- SOUTH M.W- MID-WEST

ACADEMIC YEAR				
'84-'85	84th - SUMMER * E 8/5-9/84 with 8th Biennial Chemical Education Conference University of Connecticut Storrs, CT 06268	85th - FALL * W 10/19-20/84 San Diego City College San Diego, CA	86th - SPRING * S 4/26-27/85 Miami-Dade CC, South Campus 11011 SW 104 Street Miami, FL 33176 with 189th ACS NAT. (4/28--5/3) '85	87th - SPRING * M.W 5/24-25/85 University of Wisconsin Waukesha, WI
Program Chair	Uni Susskind, Oakland Com Coll 1900 Featherstone Road Auburn Hts., MI 48057 (311) 852-1000 Ext. 325	Victor Berner New Mexico Junior College Lovington Highway Hobbs, New Mexico 88240 (505) 392-4510 Ext. 261	Wendell Massey Florida Junior College North Campus Jacksonville, FL 32218	Leonard Grotz, University of Wisconsin, Waukesha 1500 University Drive Waukesha, WI 53186 (414) 544-8743
Local Arr. Chair:		Jim Burton, San Diego City Coll (619) 230-2643	Larry Bray, Miami-Dade South	Leonard Grotz and Gary Udovich U. Wisconsin, Waukesha
Ind. Spon. Chair:				Gary Udovich, U. Wisc. Waukesha
Theme:	"CHEMISTRY: A GEM OF A SCIENCE"		BEYOND THE LECTURE	
'85-'86	88th - FALL * S 10/11-12/85 Memphis State University (With joint SE/SW ACS Reg. Meeting) State Technical Institute 5983 Macon Cove Memphis, TN 38134	89th - FALL * W 12/6-7/85 Truckee Meadows Community College 7000 Dandini Blvd. Reno, Nevada 89512	90th - SPRING * E 4/4-5/86 Elizabeth Seton College 1061 N. Broadway Yonkers, NY 10201 with 91st ACS Nat. 4/6-11/86	91st - SPRING * M.W 4/25-26/86 William Rainey Harper College Palatine, IL 60067
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Ind. Spon. Chair:				Duane Sell (312)397-3000 Ext.2 William Rainey Harper College Palatine, IL 60067
Theme:				

SUMMARY OF FUTURE 2YC$_3$ MEETINGS

* SCHEDULED
** SUGGESTED SITES/APPOINTMENTS

REGIONS: E- EAST S- SOUTH W- WEST M.W- MID-WEST

ACADEMIC YEAR				
'86-'87	* S 92nd FALL 10/3&4/86 Greenville Technical College Box 5616, Station B Greenville, SC 29606	** M.W 93rd FALL 11/21-22/86 Sinclair Community College Dayton, Ohio 45402	* W 94th SPRING 4/3-4/87 Community College of Denver (Specific campus undecided) (ACS Nat'l. 4/5-10/87 Denver)	** E 95th 5/87 Montgomery Community College Rockville, MD 20850
Program Chair	Leo Klin, III, Tri-Counties Technical College (803) 646-8361	John Kenkel--Southeast Com. Coll. Lincoln, N 68520 Richard Jones--Sinclair Com. Coll. Dayton, Ohio 45402	Martin Van Dyke, CC of Denver N. Campus, 3645 W. 112th Avenue Westminister, CO 80030 (303) 466-8811	
Local Arr. Chair:	Alan Day, Greenville Tech	Richard Jones		
Ind. Spon. Chair:				
Theme:				
'87-'88	96th ** S Florida Junior College North Campus Jacksonville, FL 32218	97th M.W.	98th ** E June 5 - 11 Nat'l. at Toronto (Joint C$_3$-2YC$_3$)	99th - SPRING ** W Early May Ricks College (Dormitories) Rexburg, ID 83440 (near Idaho Falls, Yellowstone, Gr. Tetons & Craters of the Moon Nat'l. Parks)
Program Chair:				
Local Arr. Chair:	Wendell Massey			Arthur Hubscher, Ricks College
Ind. Spon. Chair:				
Theme:				

SUMMARY OF FUTURE 2YC$_3$ MEETINGS

* SCHEDULED
** SUGGESTED SITES/APPOINTMENTS

REGIONS: E- EAST W- WEST
S- SOUTH M.W- MID-WEST

ACADEMIC YEAR				
'88-'89	100th ACS Nat'l. late Sept., early Oct., Los Angeles	101st	102nd	103rd ACS Nat'l. - 4/9-14 Dallas
Program Chair				
Local Arr. Chair:				
Ind. Spon. Chair:				
Theme:				
'89-'90	104th ACS Nat'l. 9/10-15 Miami	105th	106th ACS Nat'l. Week of 4/23 Boston	107th
Program Chair:				
Local Arr. Chair:				
Ind. Spon. Chair:				
Theme:				

SUMMARY OF FUTURE 2YC$_3$ MEETINGS

* SCHEDULED
** SUGGESTED SITES/APPOINTMENTS

REGIONS: E- EAST W- WEST
S- SOUTH M.W- MID-WEST

ACADEMIC YEAR				
'90-'91	108th ACS Nat'l. 8/26-27 Washington, D.C.		ACS Nat'l. 4/21-26 Minneapolis	
Program Chair				
Local Arr. Chair:				
Ind. Spon. Chair:				
Theme:				
Program Chair:				
Local Arr. Chair:				
Ind. Spon. Chair:				
Theme:				

PROGRESS REPORT
Task Force on ACS Involvement in the Two-Year Colleges
William T. Mooney, Jr., Chair

Third Task Force Meeting

The Task Force met on Sunday, August 26, in the Four Seasons Hotel in Philadelphia and developed the plans for the 1985 Invitational Education Conference. Procedures for circulating and reviewing the preliminary version of the *Guidelines and Evaluation Procedures for Chemistry in the Two-Year Colleges* were discussed.

Fourth Task Force Meeting

The Task Force held a telephone conference call on Tuesday, March 19, and reviewed (1) the preliminary version of the *Guidelines*, (2) the *Evaluation Form for the Guidelines*, and (3) the preliminary proposal to develop the Panel of Consultants for Two-Year College Chemistry. Plans for the first review of the Guidelines document outside the Task Force were discussed. Additionally, plans for the Task Force representation at various meetings during the Miami Beach meeting, and prior to that in Illinois and Washington DC, were developed.

Fifth Task Force Meeting

The Task Force will meet on Monday, April 29, at a location to be announced, in Miami Beach. The agenda includes the analysis and synthesis of the reactions to our materials by the various groups with whom we meet in Miami Beach.

Guidelines and Evaluation Procedures (Preliminary Version)

The preliminary version of the *Guidelines and Evaluation Procedures for Chemistry in the Two-Year Colleges* has been distributed to the members of SOCED along with an *Evaluation Form*. Representatives of the Task Force will be present at the SOCED sessions in Miami Beach to discuss this document with the Committee. Individual members are invited to complete any or all portions of the *Evaluation Form* and return it to us as soon as possible. Your consideration and comments will be appreciated.

The 1985 Invitational Education Conference

The preliminary plans for the 1985 Invitational Education Conference have been distributed to the members of SOCED. At the time of this report, we are still negogiating for a site in the Washington DC area for November 16-18, 1985. Task Force members will be present at the SOCED sessions in Miami Beach to discuss these plans with the Committee.

Cooperation with Committee on Professional Training

Copies of the *Guidelines and Evaluation Procedures for Chemistry in the Two-Year Colleges* have been distributed to members of the Committee on Professional Training in advance of the Miami Beach meeting. Representatives of the Task Force are scheduled to meet with CPT on Saturday afternoon, April 28, in Miami Beach to discuss the document and our plans.

Cooperation with College Chemistry Consultants Serivce Advisory Board

The Task Force has developed a proposal for the development of the Panel of Consultants for Two-Year College Chemistry and forwarded it to the College Chemistry Consultants Service Advisory Board. Representatives of the Task Force will meet with the Advisory Board in Miami Beach, at a time yet to be determined, to discuss this proposal. Hopefully, the two groups will be able to agree upon a joint proposal to present to SOCED at the Chicago meeting.

Respectfully submitted,

Task Force on ACS Involvement in Chemistry in the Two-Year Colleges

William T. Mooney, Jr., Chair
Harry G. Hajian
Donald E. Jones
Robert A. Schunn
Tamar Y. Susskind
Katherine E. Weissmann
E. James Bradford, ACS Staff Liaison

T1: AMERICAN CHEMICAL SOCIETY GUIDELINES FOR CHEMISTRY IN THE TWO-YEAR COLLEGES

Recommendation: Revision of the ACS 1970 "Guidelines for Chemistry in the Two-Year Colleges"

The American two-year college has the most diverse and perhaps the most demanding constituencies of any of the kinds of educational institutions flourishing in the United States today. In every dimension it is complex and broad. It is called upon to prepare students for specific occupations and for transfer to four-year institutions; it must meet the high standards of those who accept its output while repairing the effects of too low standards employed by those who produce its input; it enjoys both multiple financial support and multiple bureaucratic oversight; and, in addition, it must meet the self-defined educational needs of a substantial fraction of the adult population.

The implications of these characteristics for two-year college instruction in chemistry have been examined several times. Notable among such studies were the 1969 *Conference on Science in the Two-Year College* (sponsored by several of the then extant science commissions) and the 1980 review (supported by the National Science Foundation) by the Center for the Study of Community Colleges resulting in the report "*Science Education in Two-Year Colleges: Chemistry.*" However, there is little evidence that their recommendations, which were published widely, were utilized by such colleges or their parent systems to improve or even to maintain the quality of chemistry or other science instruction programs.

The American Chemical Society, after a thorough study, published in 1970 a set of *Guidelines for Chemistry in the Two-Year Colleges*, somewhat analogous to that for undergraduate professional education in chemistry published by the Society's Committee on Professional Training. Because there was no implementation monitoring or compliance review mechanism established, analogous to the Committee's approval program for undergraduate pre-professional curricula, the 1970 Guidelines have not had the beneficial effects expected of them.

Recommendation T1 and others that follow recognize the need to update the 1970 *Guidelines* and, by developing an action plan for their utilization, make them an effective instrument for instructional improvement.

T1. The American Chemical Society Committee on Education should undertake to revise the 1970 "Guidelines for Chemistry in the Two-Year Colleges" to reflect the diversity of chemistry education responsibilities that have become the norm for individual two-year colleges in the past 15 years.

a. This revision should reflect the comprehensive nature of two-year college chemistry programs rather than be limited to the transfer programs for intended chemistry majors. Further, the revision should address two major issues which have special intensity in the two-year colleges: standards for student performance, and adequate funding requirements.

b. If there is to be acceptance and utilization of the revised *Guidelines*, they should be accompanied by suggestions of the appropriate audiences to receive them and effective methods for their implementation at the departmental, institutional, and system levels.

T2: OUTREACH AND CONSULTATION IN AID OF INSTRUCTIONAL IMPROVEMENT

Recommendation: Development by ACS of an outreach and consultation program to assist improvement of chemistry programs in two-year colleges.

Because of their internal diversity and complexity, two-year colleges present difficult management problems. Few of their top administrators have science or engineering backgrounds. "Guidelines," and other forms of "approval" or "accreditation" standards, justifiably can be viewed with suspicion. The American Chemical Society has a long and distinguished record of non-coercive encouragement of and support for the maintenance and improvement of quality chemistry education at the undergraduate level. Since the two-year colleges are an important fraction of the national apparatus for undergraduate education, the Society should take steps to bring to them the same kind of outreach and consultation in aid of instructional improvement that has been available to institutions awarding the baccalaureate degree.

T2. The American Chemical Society should develop an outreach and consultation program that would make the expertise of the Society staff and membership more effectively available to two-year college administrators whose institutions are engaged in substantial efforts to improve the quality of their chemistry programs.

a. In support of such activities, it would be desirable for the National Council and its component discipline-related associations to undertake studies of the special costs needed to maintain science instructional programs of the necessary quality, so that such information is available to administrators and consultants. Further, these studies might well give attention to the development of new approaches to funding these special costs. Local industry, a major employer of the occupationally-educated two-year college graduate, has been a generous supplier of nearly-state-of-the-art equipment to such educational programs. These efforts need to be expanded, and their analogue for academic transfer program instrumentation and equipment needs must be developed.

T3: AMERICAN CHEMICAL SOCIETY APPROVAL OF CHEMICAL TECHNOLOGY PROGRAMS

Recommendation: Establishment of an ACS approval service for Chemical Technology programs.

Chemistry programs of two-year colleges are not among those eligible for the review and approval system for undergraduate pre-professional instruction carried out by the American Chemical Society's Committee on Professional Training. The review of such programs by regional accrediting bodies or by state two-year college boards is usually cursory, may be minimal, is often carried out by persons who have neither science nor chemistry background, and is not done with respect to guidelines that have been accepted or generated by the chemistry education community.

We believe that many benefits would flow from initiation by the American Chemical Society of a program approval activity directed to the needs of the two-year colleges. Institutions should have the opportunity, after careful internal self-evaluation, for external review of program, progress, and planning, by qualified chemistry educators working from guidelines developed and accepted by the chemistry education community.

Because of the great diversity of curricular needs addressed by two-year colleges, it is important that such a program approval activity develop gradually, covering first those curricula that are well defined, then those less highly structured.

T3. When the Revised Guidelines (T1) have been published and the outreach and consultation program (T2) is functioning, the American Chemical Society should undertake to certify/approve Chemical Technology programs in two-year colleges at the request of such institutions.

a. Like the present program of the ACS Committee on Professional Training, this activity in support of quality chemistry education in the two-year colleges should be voluntary on the part of the institutions and based on curriculum guidelines and review procedures that have been developed carefully and sensitively by highly qualified chemistry educators working closely with representatives of a cross-section of employers of chemical technicians.

b. A useful first step could be to offer the opportunity to two-year colleges for external review of their own self-evaluations conducted in light of the published *Guidelines*.

T4: AMERICAN CHEMICAL SOCIETY APPROVAL OF OTHER TWO-YEAR COLLEGE PROGRAMS IN CHEMISTRY

Recommendation: Development of an ACS approval service for college transfer and other two-year college chemistry programs at the request of such institutions.

Chemical Technology programs are relatively few in number and there is some agreement as to their level and content, though all of which we are aware interact flexibly with local and regional employers to assure a reasonable match between specialized components of the programs and the re-

quirements of changing employment opportunities. The college transfer programs offered by two-year colleges are much more numerous and are influenced in much more detail by the necessity to maintain reasonable correspondence between their content and that of related programs of instruction in the colleges and universities to which students transfer at the end of one or two years. When students may transfer to any of several institutions, as is almost always the case, the demands made upon the ingenuity and skill of two-year college faculties are considerable.

Because of this pluralism and variety, many have discouraged the Society from extending to the two-year colleges the kind of *direction* and assistance implied for four-year institutions by the *Guidelines* of the ACS Committee on Professional Training. But, because two-year colleges are a part of the higher education system that eventually graduates baccalaureate chemists, we believe that that extension should occur—and on the same basis: at the invitation of the institution, when it has determined that it wishes to be rated against the appropriate guidelines.

T4. When Recommendations T1, T2, and T3 have been implemented, the American Chemical Society should undertake to certify/approve college transfer and other chemistry programs in two-year colleges at the request of such institutions.

December 17, 1984

William J. Mooney, Jr.
El Camino College
via torrance, Ca 90506

Dear Bill,

In response to your request Marion, Dick, and I met to discuss needs that exist in community college chemistry teaching that we would like to be discussed at the invitational conference. The following are some concerns that we think classroom teachers and their students have.

1. The special characteristics of community college students

We have a concern for the many students who enter community colleges with low self expectation. This problem can exist for some of the following reasons: (1) a student being the first from a family to go to college, (2) the student has limited financial resources, (3)the student may lack a good role model, or (4) the student may have less committment to an education than the traditional student. These students have the complete range of potential as students who enter a university. We need to be concerned that our curricula does not limit the professional possibilities of these students. For instance, a student starting in nursing and taking a course that is too specialized may limit that student to a lesser career than the student's potential.

2. Accreditation of programs

Community college faculty are concerned about ACS accreditation of the community college curriculum. This could be a help in going to administration to get the faculty and equipment necessary to run a quality program. Since a significant amount of chemistry instruction in the first two years is done in the community colleges, high quality education in the community college is important to high quality education in general.

3. Articulation between the community college and receiving institutions

Community college teachers are concerned about articulation of their students as they transfer to four year colleges. The, feel that equal credit must be given for equivalent courses. This problem is not unique to community colleges, since students also transfer from one four college to another four year college, however it is an important problem to us. Attention should also be given to the articulation of our students entering industry and commingfrom high school to our community colleges.

4. Grants for curriculum development and equipment

Grant money for curriculum development and equipment is not getting into the community colleges. Compared to the number of students we teach we get a very small portion of the available grant money. We need to heighten community colleges' awareness of available grants and how to get them.

5. Faculty work load

Faculty work load may be one of the greatest concerns of community college chemisty teachers. The root of the problem seems to be how to count a laboratory. Faculty need to be able to go to their administrations with a load that is recommended by an accrediting agency like the ACS. Work loads are inconsistent and sometimes very unfair. Our teachers need help to make them fairer.

6. The elective use of part time faculty

Maintaining high quality education with a large number of part time faculty is a problem to community college chemistry departments in many places. Part time faculty are here to stay. Help is needed in how to use them properly and effectively so that the quality of education can be maintained at the highest possible level.

7. Provision for staff development

Professional development and continuing education for community college teachers is both a need and a concern. This is particularly true for teachers in colleges that are in isolated locations, as are many community colleges. It is also important to retrain and update faculty. Many community college teachers started out as the community college movement began its rapid growth. They are now about 20 years out of school, at the risk of becoming out of date and in danger of burn-out. It is important to find ways to help these teachers stay effective.

8. Increased involvement in Division of Chemical Education

Community college teachers need involvement and representation in the Division of Chemical Education. There are some community college teachers on Division committies, but not very often on the executive committee. The risk of quotas is recognized, however for a while it might be helpful for a conscious effort to be made to keep a representatives of community colleges on the executive committee of the Division of Chemical Education.

We feel that it is very important for this conference to include a significant number of working two-year college chemistry instructors to assure that the problems discussed are the major problems confronting the professional and that the solutions reached are practical, pertinent and address the issue squarely.

Bill, we are counting on you to keep us informed as your plans unfold so that we will have input in the make-up of conference participation before the final decision is made. Please inform us now how we can have early input on this selection.

We would like to hold discussion sessions on the central issues to be discussed at our regional meetings with the invitational conferees in attendance. Can this be arranged?

Sincerely,

M Baker

J Bardole

D Baglione

Form No.: ED 0001
FEDAC No.: 1840-0514
Form Exp.: 9/85

THE COMPREHENSIVE PROGRAM
FUND FOR THE IMPROVEMENT OF POSTSECONDARY EDUCATION

Preliminary ☒ Final ☐

This application should be sent to:
No. 84.116A
U.S. Department of Education
Application Control Center
Room 5673-3561
Washington, D.C. 20202

1. Application No.

2. Employer Identification No.

3. Legal Applicant

Legal Applicant Name: American Chemical Society

Address: 1155 Sixteenth Street, N.W.
Washington, DC 20036

Congressional District(s)

4. Project Director

Name: Edmund James Bradford, Ph.D.
American Chemical Society

Address: 1155 Sixteenth Street, N.W.
Washington, DC 20036

Telephone: (202) Area Code 872-4587 Number

5. Federal Funds Requested:

1st Year Only	$47,133.00
2nd Year (If Applicable)	$47,182.00
3rd Year (If Applicable)	
Total Amount:	$94,315.00

6. Institutional Information

Type of Control
- ☐ Public
- ☒ Private, Non-Profit
- ☐ Private, for Profit

Highest Degree Level
- ☐ 2 Year
- ☐ 4 Year
- ☐ Graduate
- ☐ Non-Degree Granting

Approx. Total Enrolled (If Applicable)

7. Duration of Project:

Starting Date: January 1, 1986
Ending Date: December 31,1987
Total No. of Months: 24 months

8. Population Directly Benefiting From The Project

Approximately 3000 teachers and 150,000 students in the nation's two-year colleges will benefit from this project.

9. Proposal Title:

Science and Society: Bridging the Gap

10. Brief Abstract of Proposal:

This proposal is for a project to hold a conference with experts in science and technology, experts in cognitive learning, and experts in two-year college teaching. The product of the conference will be a source-book designed to update a two-year college chemistry teacher's knowledge of topics at the science/technology/society interface that affect public policy. The composition of the conference group will assure that the materials are up-to-date, academically sound, and useful in the modern community college class-room. These sourcebooks will be distributed to more than 3,000 teachers.

11. Certification By Authorizing Official

The applicant certifies to the best of his/her knowledge and belief that the data in this application are true and correct and that the filing of the application has been duly authorized by the governing body of the applicant.

John K Crum
Name

John K Crum
Signature

Executive Director
Title

202-872-4534
Phone

29 November 1984
Date

SCIENCE AND SOCIETY: BRIDGING THE GAP

This proposal is for a project to prepare a sourcebook for two-year college chemistry teachers. This sourcebook will contain materials that will update a teacher's knowledge of current topics at the science/technology/society interface that affect public policy and will provide a suitable mechanism for imparting that knowledge to students.

Need for the Project

Modern technology has had a tremendous impact upon the lives of American citizens. With ever increasing frequency, public policy issues deal with science. In the very near future, decisions must be made concerning nuclear power production, toxic waste disposal, medical advances, and a host of other issues. These decisions must be made by a well-informed public.

There is, unfortunately, a great gulf between what the American public knows about science and what it needs to know for responsible citizenship. Jon D. Miller[1] stated that "Slightly over half the bills introduced in Congress involve science or technology in some degree." Miller also concludes, based on a 1979 National Science Foundation Survey[2], that no more than seven percent of the population is scientifically literate and that this seven percent is predominantly male, college educated, and over thirty-five years of age. Clearly, there is a knowledge gap between science and society.

The nation's two-year colleges are in a unique position to remedy this problem. They are accessible to the public, they are flexible in their curricula, and they have a student body that is considerably older on the average than one in a four-year school. The two-year colleges are presently educating more than half of the students enrolled in undergraduate chemistry courses, and these students represent a wide range of disciplines and backgrounds. No other institution can provide such easy access to the population that

votes and affects public policy decisions in the future. The two-year colleges can serve as a valuable asset in an effort to bring scientific literacy to the public.

Ideally, the chemistry faculty in the two-year colleges should be able to discuss these issues with their students and serve as community resources. The problem is that many of these teachers are no longer current in their knowledge; they are unable to present these issues in terms of 1985 technology. This has happened because two-year college teachers, working in very small departments with meager travel budgets, have become professionally isolated. They generally do not have the contact with research at the cutting edge that their colleagues in four-year schools and the chemical industry enjoy. Without this contact, their knowledge soon lags far behind technology, eventually to the point where they have little more information than that provided by the media.

Description of the Project

The proposed project will occur in three phases over a period of two years. The first and third phases will be funded by the American Chemical Society (ACS), while this proposal requests support from the Department of Education for the second phase of the project.

Phase one, the survey: The American Chemical Society will fund and conduct a survey to ask two-year teachers which topics at the modern science/technology/society interface they feel unqualified to discuss with their students. More than 3,000 two-year college chemistry teachers will be asked to select, from a large list of topics, the 15 issues that they believe the public should understand yet that the teachers find difficult to present to their classes. A section of the survey will also request that the teachers ask their students which issues the students believe they must understand to act as responsible citizens in this age of technology. From the results of the survey, a list of the ten most selected issues will be prepared.

The original large list of topics will be prepared by the American Chemical Society's Task Force on ACS Involvement in the Two-Year Colleges. This group consists of educators

from both two- and four-year colleges as well as representatives from the chemical industry. It is anticipated that the list will contain about 50 issues selected by reviewing various media sources. This group is well qualified to make these selections because they represent the leadership in the nation's two-year colleges and are very well informed on national issues and their implications for education.

Phase two, the conference and sourcebooks: The Department of Education is asked to fund a conference to bring together national experts on each of the ten topics selected in phase one of the project. Some 30 technological experts will be joined by ten experts in concept teaching and ten practicing two-year college chemistry teachers. After a general session with invited papers on the pertinent topics, the conferees will separate into groups of five, one group for each issue. Each group will consist of three technological experts, an expert in concept teaching, and an expert teacher from a two-year college. Each group will be responsible for preparing a rough draft of a chapter dealing with its assigned topic. The composition of each topical group will ensure that the materials are balanced in content, current, academically sound, and useful in the real world.

Following the conference, the ten drafts will be edited and assembled in the ACS Office of Two-Year Colleges. The separate units will then be reviewed by the conferees, published, and distributed as a package suitable for binding in a three-ring notebook. This format will facilitate updating of the materials in the future. The sourcebook will be sent, free of charge, to all two-year college chemistry teachers in the United States. This broad distribution is possible because of the current, computerized mailing list in the ACS Office of Two-Year Colleges and is necessary in order to assure that the materials are truly available and have an immediate impact. Relying on an ordering and purchasing system would drastically reduce the number of persons having access to these needed materials and seriously limit their impact.

Phase three, continuing activities: On a trial basis, two years following the

original publication of the materials, the ACS will support an advisory group to review the sourcebook and recommend addition of new topics or deletion of those that are no longer pertinent. This group will be formed under the auspices of the ACS Society Committee on Education. If some sections are found to be outdated, this group will identify several content experts to revise the materials. If the group decides to include new topics, it will identify the appropriate experts, and a small workshop will be held to prepare a new unit. This new unit (or a revision of an old one) will then be published and distributed to the two-year college teachers for inclusion in their sourcebook. By this mechanism, the materials will remain current, useful, and in the hands of the people who need them.

An additional activity for improving the sourcebook will be an evaluation of the materials to make sure that they are useful and timely. The first evaluation will be conducted with a tear-out, self-mailing evaluation form included with the sourcebook. Subsequent evaluations will be conducted through the 2YC Distillate, the ACS newsletter reaching all two-year college chemistry teachers. If the sourcebook proves to be as useful as is anticipated, it may be updated with future editions.

The Role of the American Chemical Society

In addition to conducting the initial survey and the follow-up activities, the American Chemical Society is recognized for its ability to organize conferences and to produce published materials of the highest quality. With well over 130,000 members, the ACS can bring together individuals with expertise in all of the areas likely to be addressed- individuals who will contribute their time in the name of professional service. The ACS Office of Two-Year Colleges has a constantly updated mailing list with the name of every two-year college chemistry teacher in the United States. Since the mechanisms for the production and distribution of the sourcebook are already in place in the ACS, it would be most cost effective to carry out this project on a collaborative basis. The ACS structure also offers the possibility of new partnerships with other levels of education

and with industry. For example, these materials may be appropriate for a university course in general science or for staff development in an industrial setting. The development of these partnerships could enhance the overall efficacy of this project and enable positive impact far beyond the cost of the immediate grant.

Concluding Remarks

The mission of the modern, comprehensive community college includes a firm commitment to providing for the needs of the community. The chemistry teachers in these colleges have the scientific training and teaching skills required for the success of this project, and they have access to a broad spectrum of the student population. Many people are interested in the issues of public science policy, and they are willing to become and remain informed about these issues. It is this very group, the scientifically attentive public, that might enroll in a current events science course or take a regular chemistry course. It is also this group that most influences public policy by becoming involved in issues. This project will enable the chemistry teachers in the two-year colleges to impart timely, valuable information to both degree-bound and nontraditional students and thereby substantially increase society's understanding of science.

[1]Jon D. Miller, "Scientific Literacy: A Conceptual and Empirical Review," Daedalus, Vol. 112, No. 2, of the Proceedings of the American Academy of Arts and Sciences (1983), 29-48.

[2]The 1979 survey collected personal interviews from 1,635 adults in a nationally stratified cluster. The interviews averaged 55 minutes in length. For a full description of the interview instrument, see Miller et al., The Attitudes of the U.S. Public toward Science and Technology, the National Science Foundation (1979).

Preliminary Budget

The following budget is for phase two only. The ACS contribution for phase one is in excess of $5000, and this amount has been included in the proposed 1985 budget for the Office of Two-Year Colleges.

Phase Two: The Conference and the Production and Distribution of the Sourcebooks

The Conference: 50 persons, 3 days

Per diem expenses @ $75 per person per day	$11,250
Round trip air fare @ $400 per person	20,000
Miscellaneous conference expenses	5,000
Total for Conference	$36,250

The Sourcebooks: 3,000 pieces printed and distributed

Clerical assistance	$ 4,000
Computer allocation	2,000
Art, design, typesetting, printing	24,000
Packaging and mailing	6,300
Total for Sourcebooks	$36,300

Total for phase two (direct costs only)	$72,550
Preliminary estimate of indirect costs @ 30%	$21,765
Grand total of solicited support	$94,315

BUDGET*

Year (1) 2 3 (circle one)

(Use Same Format for Each Continuing Year)

BUDGET ITEM	
A. Direct Costs:	
1. Salaries & Wages (Professional and Clerical)	$
2. Employee Benefits	
3. Travel	36,250 (1986 conference)
4. Equipment (Purchase)	
5. Materials & Supplies	
6. Consultants or Contracts	
7. Other (Equipment rental, Printing, etc.)	36,300 (1987 sourcebooks)
B. Indirect Costs:	21,765 (entire project)
TOTAL Requested from the Fund (This Figure Should Appear on the Title Page)	$ 94,315 (entire project)

Institutional Support (Project costs not requested from the Fund) $ 35,000 for the duration of the project

This estimate includes the survey, computer facilities, salaries and benefits for both administrative and clerical, and general administrative expenses.

*Most items will need to be detailed in the Budget Narrative at the Final Propcsal stage: This includes a breakdown of the institutional support.

March 1985

DIVISION OF CHEMICAL EDUCATION
AMERICAN CHEMICAL SOCIETY
1985 ROSTER OF COMMITTEE MEMBERS

Chairman	Jay Bardole, Vincennes University Junior College, Vincennes, IN 47591 (812-885-4372 H 812-882-5272)
Immediate Past Chair	Marion Baker, Central Piedmont Community College P.O. Box 35009, Charlotte, NC 28235-5009 (704-373-6462)
Chair Elect	Onofrio Gaglione, New York City Technical College, 300 Jay St., Brooklyn, NY 11201 (212-643-3488)
Secretary/ Editor	Ethelreda Laughlin 6486 State Road #12, Parma, OH 44134 (216-884-0546) (First term expires 1986)
Treasurer/ College Sponsors	John Clevenger, Truckee Meadows Community College 7000 Dandini Blvd. Reno, NV 89512 (702-673-7221) (First term expires 1985)
General Membership Chair	Mike Knoll, Vincennes University Junior College Vincennes, IN 47591 (812-885-4259) (Second term expires 1986)
Industrial Sponsors	Elliott Greenberg, Prairie State College P.O. Box 487, Chicago Heights, IL (312-756-3110) (Second term expires 1987)
Past Chair Members	Tamar Y. Susskind, Oakland Community College 2900 Featherstone Road, Auburn Heights, MI 48507 (313-853-4325) Douglas Bond, Riverside City College 4800 Magnolia Ave., Riverside CA 92506 (714-684-3240 ext. 358) Katherine E. Weissmann, C.S. Mott Community College 1401 East Court Street, Flint, MI (313-762-0280) Paul Santiago, Harford Community College Bel Air, MD 21014 (301-836-4166) John P. Mitchell, Tarrant County Junior College Northeast Campus, Hurst, TX 76053 (817-281-7860) William W. Griffin, Hinds Junior College P.O. Box 70, Raymond, MS 39154 (601-857-5261) Curtis Dhonau, Vincennes University Junior College Vincennes, Indiana 47591 (812-885-4370) Cecil Hammonds, Penn Valley Community College Kansas City, MO 64111 (816-932-7659) Ethelreda Laughlin (address above)
Past Chairs	Tamar Susskind, Douglas Bond, Katherine Weissmann, Paul Santiago, John Mitchell, William Griffin, Curtis Dhonau, Douglas Bauer(deceased), Cecil Hammonds, Ethelreda Laughlin, William Mooney

Region I- Western States: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada,New Mexico, Oregon, Utah, Washington, Wyoming

Western Regional Vice-Chairman 1985: Carolyn Collins (1985) Clark County Community College, 3200 East Cheyenne Avenue, N. Las Vegas, NV 89030

Albelo, Gilbert	(1987)	Mt. Hood Community College Gresham, Oregon 97030 (503-667-6422)
Berner, Victor	(1987)	New Mexico Junior College Lovington Highway, Hobbs, NM 88240 (505-392-4510 ext 261)
Cunningham, Alan	(1987)	Monterey Peninsula College Monterey, CA 93940 (408-646-4154)
Hubbs, Robert R.	(1985)	DeAnza College Cupertino, CA 95014 (408-996-4774)
Lungstrum, Richard A.	(1986)	American River College Sacramento, CA 95841 (916-484-8464)
Mooney, William T.	(1987)	El Camino College via Torrance, CA 90506 (213-532-367)
Sherman, Ruth	(1986)	Los Angeles City College 855 N. Vermont Ave, Los Angeles, CA 90029 (213-669-4223)
Scott, Peter	(1986)	Linn-Benton Community College 6500 SW Pacific Blvd, Albany, OR 97321 (503-928-2361)
Sterner, Wanda	(1986)	Cerritos College 11110 E. Alondra Blvd., Norwalk, CA 90650 (213-860-2451 ext 369)
Van Dyke, Martin	(1987)	Front Range Community College North Campus 3645 W. 112th Ave., Westminister, CO 80030 (303-466-8811)
Wasserman, William	(1985)	Seattle Central Community College 1701 Broadway, Seattle, WA 98122 (206-587-4080)

Region II Southern States: Alabama, Arkansas, Florida, Geogia, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas

Southern Regional Vice-Chairman 1985: Wendell Massey Jr. (1986) Florida Junior College, North Campus, Jacksonville FL 32218 (904-757-6441)

Paula Ballard (1986) Jefferson State Jr. College 2601 Carson Rd., Birmingham, AL 35215
(205-853-1200)
James Graham, (1987) J.C. Calhoun Community College, Decatur, AL.

Barber, Ms. Anne	(1986)	Manatee Junior College 5840 26th Street W., Brandenton, FL 33506 (813-755-1511)
Edith Bartley	(1986)	Tarrant County Junior College, South Campus Fort Worth TX 76119 (817-534-4861)
Cheek, William E.	(1985)	Central Piedmont Community College PO Box 35009, Charlotte, NC 28235-5009) (704-373-6968)
Darnall, David	(1986)	Shelby State Community College PO Box 40568, Memphis, TN 38104 (901-528-6748)
Inscho, F. Paul	(1985)	Hiwassee College, Box 65, Madisonville, TN 37354 (305-442-2182)
Kling, Leo III	(1986)	Tri County Technical College Pendleton, SC 29670 (803-646-3227 ext. 325)
Maier, Thomas L.	(1986)	Atlanta Junior College 1630 Stewart Ave. SW, Atlanta, GA 30310 (404-656-6365)
Minter, Anne P.	(1986)	Roane State Community College Harriman, TN 37748 (615-354-3000)
Roach, Don	(1985)	Miami-Dade Community College South Campus 11011 SW 104 St. Miami FL 33176 (305-596-1157)

Region III - Midwestern States: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio South Dakota, Wisconsin

Midwest Regional Vice-Chairman 1985 Leonard Grotz (1985) University of Wisconsin-Waukesha, 1500 University Drive, Waukesha WI 53186 (414-544-8743)

Ralph Burns	(1986)	St.Louis Community College at Meramec 11333 Big Bend, St. louis, MO 63122 (314-966-7718)
Crawford, Sam	(1987)	Johnson County Community College College Boulevard at Quivira Road Overland Park, KS 66210 (913-888-8500)
Eidsness, Warren	(1986)	Normandale Community College 9700 France Ave. S. Bloomington, MN 55431 (612-830-9300)
Elkins, I. Dean	(1986)	Henderson Community College University of Kentucky, Henderson, KY 42420 (502-827-1867)
Johnson, Cullen	(1987)	Cuyahoga Community College, Western Campus Parma, OH 44130 (216-845-4000)
Jones, Richard	(1985)	Sinclair Community College Dayton, OH 45402 (513-226-7907)
Kenkel, John	(1985)	Southeast Community College Lincoln Campus Lincoln, NE 68520 (402-471-3333)
Klein, Dave	(1986)	Kansas City Kansas Community College 7250 State Ave. Kansas City, KS 66112 (913-334-1000)
Koch, Frank	(1985)	Bismarck Junior College Bismarck, ND 58501 (701-224-5423)
Kolb, Doris	(1985)	Illinois Central Community College East Peoria, IL 61635 (309-694-5011)
Kreiger, Albert	(1985)	Jackson Community College Jackson, MI 49201 (517-787-0800)
Redmore, Fred	(1987)	Highland Community College Freeport, IL 61032 (815-235-6121 ext 331)
Sell, Duane	(1987)	Wm. Rainey Harper College Palatine, IL 60067 (312-397-3000)
John Winklemann	(1987)	Illinois Valley Community College Rural Route, Oglesby, IL 61348 (815-224-2720)

Region IV - Eastern States: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Virginia, Vermont, West Virginia

Eastern Regional Vice-Chairman 1985:

Burge, Robert	(1987)	Suffolk Community College 533 College Road, Serden, NY 11784 (516-451-4110)
Cherim	(1985)	Delaware County Community College Media, PA 19063 (215-353-5400)
Cucci, Myron w.	(1987)	Monroe Community College Rochester, NY 14623 (716-424-5200)
Feldsine, John Jr.	(1985)	Broome Community College Binghamton, NY 13902 (607-771-5000)
Flath, Patricia	(1986)	Paul Smith's College Paul Smith's NY 12970 (518-327-6266)
Hajian, Harry G.	(1987)	Community College of Rhode Island 400 East Ave. Warwick, RI 02886 (401-825-2258)
Kanter, Muriel	(1987)	Roxbury Community College 625 Hunginton Ave, Boston MA 62115 (617-734-1960)
Katz, David	(1897)	Community College of Philadelphia 1700 Spring Garden Street Philadelphia, PA 19130 (215-751-8000)
Rainard, Barbara	(1985)	Community College of Allegheny Allegheny Campus 808 Ridge Ave, Pittsburg, PA 15212 (412-237-2525)
Schumm, Margot K.	(1986)	Montgomery College, Rockville, MD 20850 (301-279-5129)
Sollimo, Vincent	(1985)	Burlington County College Pemberton, NJ 08068 (609-894-9311)
Vlassis, C. G.	(1985)	Keystone Junior College LaPlume, PA 18440 (717-945-5141)
Zoranski, Edmund J.	(1986)	Atlantic Community College Mays Landing NJ 08330 (609-625-1111)

2YC≤ SUBCOMMITTEES

PROGRAM: Leonard Grotz (Chair), Carolyn Collins, Cullen Johnson

WORKSHOPS: Sam Crowford (Chair), Stanley Cherim, Peter Scott

PUBLICATIONS: Ethelreda Laughlin (Chair), Myron Cucci, F. Paul Inscho, Richard Jones, Wanda Sterner

INDUSTRIAL SPONSORS: Elliott Greenberg (Chair), Don Roach

MEMBERSHIP: Mike Knoll (Chair), Edmund Zoranski

CONFERENCE SITES: Dick Gaglione (Chair), William Cheek, John Clevenger, Cecil Hammonds, Paul Santiago

TEACHING STANDARDS: Uni Susskind (Chair), Jay Bardole, Pat Flath, John Feldsine

STUDENT EMPLOYMENT PROFILE

AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES

EMPLOYMENT STATUS OF PUBLIC TWO-YEAR COLLEGE STUDENTS: 1980 and 1981

1980

I. Fulltime students:

A. 21.8 percent were employed fulltime.
B. 43.0 percent were employed parttime.
C. 35.2 percent were not employed.

II. Parttime students:

A. 43.5 percent were employed fulltime.
B. 35.3 percent were employed parttime.
C. 9.0 percent were unemployed.
D. 13.3 percent were not in the labor force; that is, they were not employed and not looking for work.

1981

I. Fulltime students

A. 21.4 percent were employed fulltime.
B. 49.0 percent were employed parttime.
C. 30.0 percent were not employed.

II. Parttime students:

A. 56.0 percent were employed fulltime.
B. 25.8 percent were employed parttime.
C. 9.0 percent were unemployed.
D. 9.2 percent were not in the labor force.

Analysis: In 1980, nearly two out of every three fulltime students were employed (about twice as many were employed parttime as were employed fulltime), and almost eight of ten parttime students were working. In 1981, both percentages went up, with over 70 percent of the fulltime students holding down jobs (more than twice as many held parttime jobs as held fulltime jobs) and 81.8 percent of the parttime students were working. In each of the two years, 9.0 percent of the students were unemployed. The percentage of students who were not in the labor force (not employed and not looking for work) in 1980 and 1981 was 13.3 and 9.2 respectively.

Source: National Center for Educational Statistics

DISTRIBUTION OF AID AND COSTS FOR ALL DEPENDENT RECIPIENTS OF NEED-BASED AID IN PUBLIC TWO-YEAR COLLEGES BY INCOME LEVEL

	Income Levels									
	Less Than $8,000		$8,001-$14,000		$14,001-$22,000		$22,001-$34,000		$34,000+	
	(n=186,404) %	$	(n=80,922) %	$	(n=105,689) %	$	(n=41,222) %	$	(n=2,917) %	$
Parental Contri.	5.0	160	4.4	147	12.5	416	27.7	1,000	46.6	1,621
Grants	36.3	1,155	32.1	1,071	25.6	852	15.4	557	10.7	373
Student Employ.	9.3	295	7.8	261	9.0	301	9.0	325	10.0	346
Loans	6.2	196	7.9	263	12.2	405	18.4	659	16.6	574
Student Contri.	13.3	424	14.1	470	15.2	507	13.3	481	16.2	564
Other	11.1	353	5.1	169	4.9	163	4.4	157	2.3	80
Tuition	$569		$613		$667		$723		$537	
Total Cost	$3,184		$3,333		$3,323		$3,605		$3,476	
Unmet	-18.8%		-28.6%		-20.6%		-11.8%		+2.4%	
Need	-$600		-$952		-$685		-$426		+$82	

Source: AACJC/AASCU/NASULGC--Ford/Exxon Student aid National Sample, All Students Receiving Need-Based Student Aid, Two-Year Colleges -- Weighted, 1981-82. Computer output dated July 17, 1982. From Journal of Student Financial Aid, National Association of Student Financial Aid Administrators, Spring 1984.

Note: Numbers in the percentage columns represent that portion of total costs covered by respective sources.

Analysis: Two of the important conclusions that can be reached from this chart are: 1) Students from low-income families rely heavily upon Pell Grants to support their college educations, a clear indication that the Pell Grant system works and that it is reaching precisely the group of citizens it was intended to reach; and 2) students from low-income families make a significant contribution to the costs of their own education, from employment income (see figures on the reverse side of this sheet) and from other personal sources. Yet, even with the combination of these fund sources, a student from a low- to modest-income family would have a shortfall between the money he/she is able to raise to pay for an education and the cost of that education.

Prepared by Jim Mahoney, AACJC Data Office.

Supplement to AACJC Letter Number 134, March 19, 1985.

EDUCATIONAL RESOURCES INFORMATION CENTER
ERIC Clearinghouse For Junior Colleges
UNIVERSITY OF CALIFORNIA, LOS ANGELES

THE ASSOCIATE DEGREE: A REVIEW OF AVAILABLE DATA

During the 1970's the associate degree maintained its important role in undergraduate education. Data collected by the National Center for Education Statistics and published in documents available through the ERIC system reveal that the number of associate degrees awarded in curriculums requiring at least two years of study rose 21% between 1973-74 and 1980-81. The number of bachelor's degrees awarded, however, rose by less than one percent between 1973-74 and 1981-82. While associate degrees accounted for only 27% of all undergraduate degrees (i.e., associate and bachelor's) awarded in 1973-74, 31% of the undergraduate degrees awarded in 1980-81 were at the associate level. Other findings include the following:

- Degrees awarded in vocational curricula account for the growth in the number of associate degrees granted. Between 1973-74 and 1980-81 the number of associate degrees awarded in occupational programs rose 45% while the number of associate degrees awarded in transfer curricula declined by 5.4%. Only in seven states (Arizona, Florida, Georgia, Idaho, Oklahoma, Kansas, Wyoming) did associate degrees in transfer-related curricula account for over 50% of the associate degrees awarded in 1980-81. Nationally, 62.6% of all associate degrees awarded in 1980-81 were in vocational fields.

- Of the occupational associate degrees awarded in 1980-81

    - 36% were in business and commerce technologies (up from 33% in 1973-74)

    - 23% were in health services and paramedical technologies (down from 26% in 1973-74)

    - 20% were in mechanical and engineering technologies (up from 17% in 1973-74)

    - 10% were in public service-related technologies (down from 15% in 1973-74)

    - 6% were in data processing technologies (up from 4% in 1973-74)

    - 5% were in natural science technologies (down from 6% in 1973-74)

- Since 1976-77, over 50% of associate degrees have been earned by women. Though female students are beginning to enter occupational curricula in which women have been traditionally underrepresented, most women who obtain occupational associate degrees remain in health, office, and public service occupations. The 1980-81 data on students receiving associate degrees and other formal awards in occupational curricula requiring at least two, but less than four years of study reveal that women made up:

    - 88% of the recipients in health services and paramedical technologies (compared to 86% in 1973-74)

- 62% of the recipients in business and commerce technologies (compared to 50% in 1973-74)

- 53% of the degree recipients in public service related technologies (compared to 36% in 1973-76)

- 50% of the degree recipients in data processing technologies (compared to 30% in 1973-74)

- 39% of the degree recipients in natural science technologies (compared to 28% in 1973-74)

- 8% of the degree recipients in mechanical and engineering technologies (compared to 2% in 1973-74)

- The growing popularity of vocational degrees is not necessarily a sign of the diminution of the transfer function, because many occupational students transfer to senior institutions. Indeed, a study conducted by the State University of New York found that 29% of SUNY community college students receiving vocational associate degrees in 1980 transferred to a four-year institution. Illinois data also shed light on transfers with vocational associate degrees. Of the 3,871 students who transferred with an associate degree from an Illinois community college to an Illinois senior institution in Fall 1979, 19% (727) held the associate in applied science (AAS) degree. While the baccalaureate attainment rate for AAS transfers (19%) was lower than the baccalaureate attainment rate of those transfers with associate of arts or associate of science degrees (31%), it was higher than the attainment rate of those community college transfers who had earned no associate degree at all (11%).

Sources:

Associate Degrees: A Look at the 70's. National Center for Education Statistics Bulletin. Washington, DC: National Center for Education Statistics, 1981. (ED 207 628)

Bragg, A.K. Fall 1979 Transfer Study. Report 3: Second Year Persistence and Achievement. Springfield: Illinois Community College Board, 1982. (ED 230 228).

Grant, W. V., and Snyder, T. D. Digest of Education Statistics, 1983-84. 21st Edition. Washington, DC: National Center for Education Statistics, 1983. (ED 244 402)

Plisko, V. W. (Ed.) The Condition of Education. A Statistical Report. 1983 Edition. Washington, DC: National Center for Education Statistics, 1983. (ED 233 476)

Plisko, V. W. (Ed.) The Condition of Education. A Statistical Report. 1984 Edition. Washington, DC: National Center for Education Statistics, 1984. (ED 246 521)

SUNY Community College Graduates: Their Futures. Analysis Paper No. 822. Albany: State University of New York, Office for Communtiy Colleges, 1982. (ED 223 282)

AACJC LETTER
AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES

October 30, 1984 - No. 115

ENCLOSURES
SOC Brief
Colorado Skills Form
ERIC Research Brief
Group Attitudes Survey
AACJC Publications Brief

Dear Colleague:

Community Colleges Get High Marks

Take heart . . . the public likes community, technical, and junior colleges. AACJC, along with The College Board and the Council for Advancement and Support of Education, commissioned Group Attitudes Corporation of New York to conduct a random sample public opinion telephone survey of 1,006 persons ages 18 and over. One principal finding from the survey is that Americans show great confidence in community, technical, and junior colleges and believe they offer quality education at a reasonable cost.

In brief, the study reveals that:

- Americans are quite satisfied with the high quality of instruction at community, technical, and junior colleges, and three out of four individuals tend to feel that such two-year institutions provide a good education at a low or reasonable cost.

Associate Degree Popular

- Four out of five individuals polled (80.9 percent) feel that an associate degree from a community college is very useful in helping a person transfer to a four-year college or university, and three out of four (75.9 percent) feel that such a degree is very useful in helping a person get a job that requires some expertise or training.

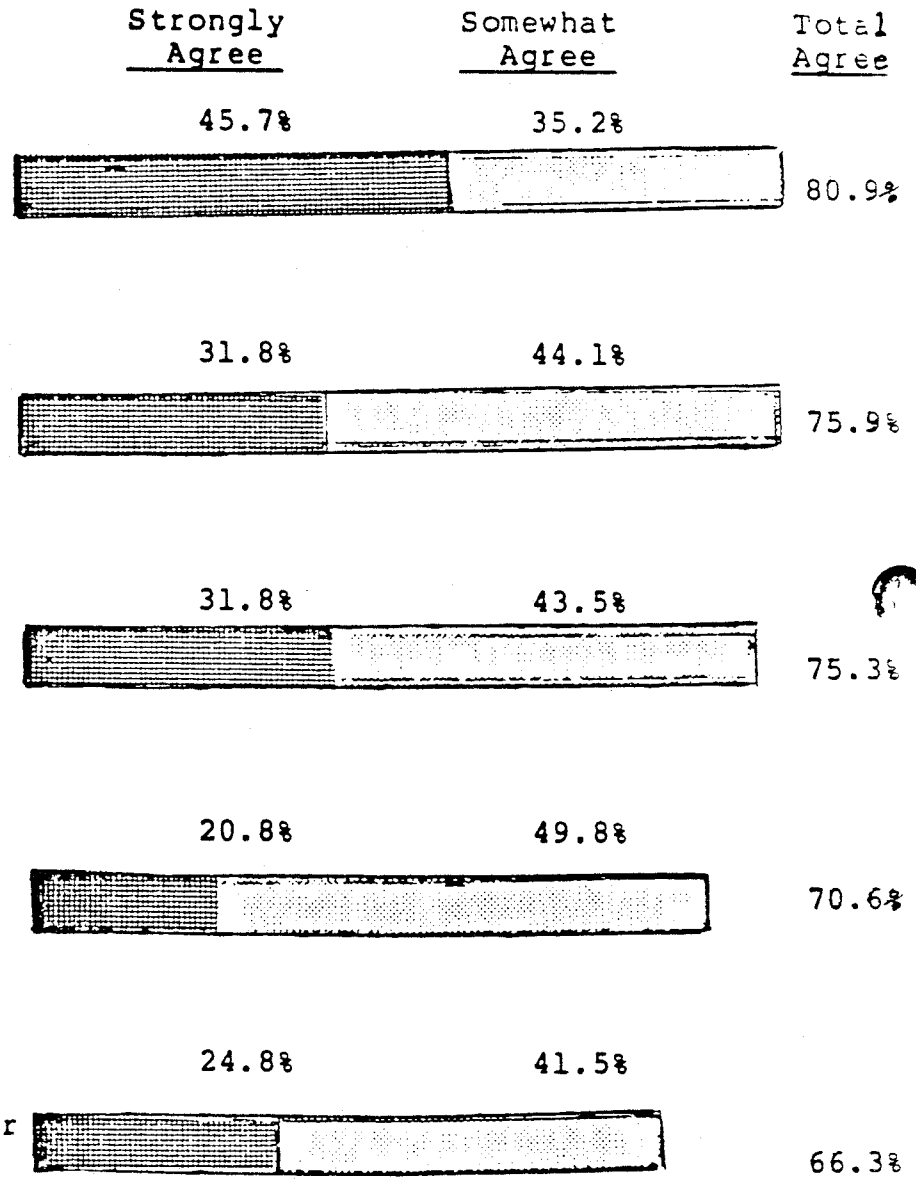
- A large majority of Americans (66.9 percent) think the overall quality of all higher education in the United States is good or excellent. This figure, however, represents a slight decline from the past two years. In 1982, 72.5 percent of Americans rated the quality of all collegiate education in this country as good or excellent, and in 1983 the proportion was 68.1 percent. It is important to note that there is a more negative assessment of the overall quality of higher education in the western part of the country this year than was the case a year ago. In the Pacific states, for example, 9.9 percent of those polled in 1984 rated the quality of higher education as poor, a sharp one-year increase from the 6.5 percent of those polled in 1983.

Support for Federal Funding

- For Americans, increasing federal aid to higher education is third on their list of priorities for U.S. government spending in the years ahead, preceded only by their opinions that government spending ought to be increased for medical research and for medical care for the aged.

Those Who Agree With Various Facets of a Community College Education

(Weighted N = 1,005)



uestion: "Following is a series of statements pertaining to community or junior colleges. For each, please state if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the statement."

Group Attitudes Corporation

Supplement to AACJC Letter No. 115, October 30, 1984

INNOVATION ABSTRACTS VOL. VI NO. 22

Published by the National Institute for Staff and Organizational Development
With support from the W. K. Kellogg Foundation

IN SEARCH OF EXCELLENCE--FOR ORDINARY PEOPLE

Reform is the big pendulum swing in education in the mid-80s. At last count, there were more than 30 books, studies, and commission reports, as well as 175 task groups spread throughout the nation, all devoted to improving the quality of education. In all of these commentaries, there really isn't much agreement on whether American education has a cold, the flu, or is about to die of pneumonia. However, I am sure that many of the symptoms are real, and I want to attempt a diagnosis that I think fits our current condition best.

Creating Winners

Peters and Waterman, in *In Search of Excellence*, describe the most successful corporations in America and how they got that way. Their criteria for excellence do not reside in the prestige of the product (remember that both MacDonald's and IBM are on their list) but rather in the attitude and enthusiasm of the workers. That conclusion doesn't surprise me much. But when they identify one characteristic of corporate excellence as "unusual effort on the part of *apparently ordinary* employees," I realize that we have a lot to think about in the community college situation--so many of our students fit into the category of *ordinary people*.

These authors suggest that excellent companies "turn the *average* Joe and the *average* Jane into winners," which, we well know, is much more difficult than just *recognizing* winners. We are good at identifying winning students. In fact, much of the educational reform movement currently underway is based upon selecting winners rather than upon creating them. Colleges that are able to select winners for their entering classes are perceived as quality institutions. Judging quality on the selectivity of the admissions process, rather than on "value added" to a person while he is in the institution, has created, in my opinion, an upside-down ranking of our higher education institutions with respect to excellence. Unfortunately, *making* winners out of ordinary students--one of our major functions in the open-door community college--is easily the toughest problem we have.

Peters and Waterman insist that most excellent companies build systems to reinforce *degrees of winning* rather than degrees of losing. The less-than-excellent organizations take a negative view of their workers. "They verbally berate participants for poor performance . . . . They design systems that seem calculated to tear down their workers' self-image." Pat Cross reminds us that of all the data she has collected on open-admissions students in community colleges, "none were more distressing than those showing students' perceptions of themselves as losers in the educational race." If we perceive that a large part of our job in community colleges is turning losers into winners, then some things seem imperative.

Recognizing Differences

We know it does no good to tell students that they are doing fine if they are not--and there is plenty of evidence that ordinary students are not doing well. In my more than three decades of trying to find realistic ways to provide education for all people, I have reached the same conclusion as Pat Cross: it is our commitment to the lock-step, time-defined structures of education that keeps so many ordinary students from becoming winners. Our traditional delivery system works well enough for those who are already winners, but it is simply unrealistic to expect all students to learn the same material, to the same standards of performance, in the same amount of time, taught by the same method. Despite our knowledge of the importance of individual differences, we still fail to provide the service that will substantially reduce high attrition. I strongly suspect that this is because it is beyond the energy level of most teachers to truly individualize instruction *in addition to* handling the required tasks of the traditional group instruction process. So, it seems, we continue to ignore the individual differences that do not fit into the time-bound, group instruction mold and try instead to reduce the diversity--as Pat Cross notes--"through selection, through narrowing curricular choices, and through proclaiming that we expect too much of our schools and that they must be allowed to get back to basics."

De-Massifying Education

If we choose to improve our institutions by getting rid of problem learners, it will be at the expense of society. The superficially excellent institution is something we simply can't afford. I propose instead that we maximize the performance of *all* of our "ordinary people" by seriously addressing their individual differences and

proceed now to find solutions to the problems of curriculum, instructional delivery, and specialized student services that currently prevent the needed customizing. Ben Bloom, Jerome Bruner, and John Roueche, some of our most respected researchers, are convinced that almost any person can learn the basic curriculum, given enough time and appropriate help. If my, and their, diagnosis is correct, then it seems that educational reform should start questioning the ancient structures of education.

To use Alvin Toffler's phrase, it is time to de-massify education. In his *Third Wave*, he suggests that products and services in general will be customized. In education we seem generally oblivious to the potential power of much of the new technology to custom-design education. Despite these technological changes, most educational reform recommendations of the 1980s propose Second Wave solutions in a Third Wave world. They suggest re-massifying rather than de-massifying education.

Keys to Lifelong Learning

An adult's greatest handicaps are poor basic skills and a dislike of formal learning. On a recent *Firing Line* TV program, William Buckley and Mortimer Adler were arriving at their separate conclusions about the ability of the average student to deal with a core curriculum. Buckley asked if Adler had any proof that they could. "No," said Adler, "I do not have absolute proof, but I do have strong hopes. On the other hand, neither do you have absolute proof that they cannot learn. In our democratic society, I would rather we have an educational system designed around my hopes than around your doubts."

Those who dislike learning are doomed to be stuck in dead-end and even disappearing jobs, and those who like learning can use it to make their lives richer. As Pat Cross observes, "One thing that we know for sure from all the research on adult learning is that the already well-educated rush to take advantage of the new opportunities that are appearing; the poorly educated stay away in droves."

I believe that some of the new knowledge now being introduced into education offers us the opportunity to de-massify education--to customize it so that Adler's reason for hoping is greatly increased and Buckley's reason for doubting is greatly decreased. Bud Hodgkinson reminds us that most of higher education now have access to computers, but instructional programs within those institutions appear generally oblivious to the potential power of the computer to custom-design education. The computer, when operating interactively with the student and an instructor, offers a breakthrough toward individualizing and customizing that simply can no longer be neglected by those interested in academic excellence. And the computer is only one, though perhaps the most important, of the new technologies that we should be developing to aid in instructional delivery. I agree with John Roueche who says that the heart of every delivery system has to be a live instructor "to provide structure, set standards, and provide support." When instructors put the new technologies to work as additional teaching tools, the teacher's role will be enhanced--not diminished or eliminated.

At Stake: Survival of the Democratic Ideal in the Information Age

The most important challenge facing community colleges is to *prepare students for their futures as lifelong learners*. Doing this, however, will not be an easy task, given the condition of education. Simply put, we must: (1) demonstrate to all students that they are capable of learning and that it is a useful, satisfying skill that will serve them well throughout their lives; (2) help them to develop the cognitive skills that serve as the basic tools for lifelong learning; (3) instill positive attitudes toward learning and put them in charge of their own learning; and (4) continue to provide the multiple options that a learning society can expect in its community colleges. The new technology isn't the answer to it all, but I do believe it is a key that will help to unlock the individual talents of those students who have not responded to time-bound group instruction. Sometime in the future when we finally have realized a highly individualized and customized delivery system, there will probably still be an irreducible number of students that we will not be able to turn into winners because of personal problems beyond our, and their, control. As educators, however, I know we do not want it to be the system we operate that causes losers. As community colleges continue their search for excellence, I think they will find it in their ability to deal with ordinary people, in turning losers into winners, in being hopeful rather than doubtful. We are the only segment of higher education capable and interested in serving all of our citizens, and we simply must find the ways and means of doing it if the democratic ideal is to survive in the information age.

A. Robert DeHart, President
DeAnza College

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Suanne D. Roueche, Editor
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By Frank Mensel

New Congress—whither community colleges?

Even as this magazine goes to press, the Joint Commission on Federal Relations, serving both AACJC and the Association of Community College Trustees, will be well down the road toward pinpointing the initiatives and priorities that it will work for in the 99th Congress. What is the commission's emerging agenda?

Consuming more time and energy almost surely than anything else will be the reauthorization of the Higher Education Act, in which at least six existing titles hold important stakes for the community colleges. Foremost is Title IV, from which the student financial aid programs flow.

Possibly holding parallel importance will be the commission's continuing effort to foster national policy that provides a concerted national strategy for human resource development. The nation's ability to stay out front in the escalating global economic competition will depend largely on its making increasingly efficient use of resources. The public investment in training must be focused on giving the workforce the depth and diversity of skill to outdistance foreign competition. The various federal programs in vocational-technical education and job training, like state and local programs of the same vein, must work in concert with each other, rather than in competition or conflict.

An egregious example of such conflict lies in the rule that some states still have of prohibiting jobless adults who are enrolled in school full time from drawing unemployment compensation. You can be sure that the Joint Commission on Federal Relations will continue in the new Congress, as it has in the past, to urge that federal law reverse this practice. In the commission's view, state practice should be exactly the opposite: if adults who are out of work cannot be placed in new jobs within a month, referral to full-time training would be automatic in most cases to continue to qualify for unemployment compensation, as it is in many other industrialized countries with which we are competing.

As Stuart Eizenstat and William Spring (president of the Boston Private Industry Council) recently advocated (*Washington Post* September 9):

> In place of a program that now provides only temporary cash benefits, we should install a long-term employment system that encourages employers to retain workers during economic slowdowns and provides incentives for the unemployed to be retrained and reemployed....
>
> As in Japan, cash benefits should be used initially to stabilize the lives of the suddenly unemployed. But the emphasis should then shift to job retraining...further help should be conditional on participating in an organized search for a job or joining a job-training program....
>
> More is needed to help American workers adjust to the tremendous changes in our economy. That is why a reformed unemployment program should be top priority for Congress and the next president.

In fact, much of the very ambitious agenda that the community colleges have been pursuing in the 98th Congress will carry over into the 99th Congress. It undoubtedly has constituted the most comprehensive schedule of federal initiatives that the community colleges have ever taken to Congress. At the top of the list were Pell grant increases, on which the community colleges have scored decisive gains in each of the past two years.

The big Pell grant gain in 1983 was breaking the ten-year-old cap on covered costs, and to get the individual allowance for the commuter student boosted by $500. No less significant was the 1984 triumph—winning House and Senate concurrence in the first increase ever in the half-cost formula.

Renewing and fine tuning the Pell grant program looms as the highest priority in the Higher Education Act reauthorization. The numbers of learners helped by the Pell grant program in the dozen years since its inception now easily exceed the nearly 20 million veterans who have studied under the three GI bills over the past three generations.

Senator Orrin H. Hatch (R-UT), who chairs the Committee on Labor and Human Resources, which makes education policy for the Senate, introduced two bills in the late weeks of the expiring Congress that would initiate major reforms in the Higher Education Act. His bills clearly signal the chairman's determination to put the Hatch imprint on the reauthorization.

One of his bills, the Continuing Education Act of 1984 (S. 2919), would retailor HEA's Title I, to focus federal assistance on postsecondary continuing education programs that serve working adults taking part-time college studies to bolster their careers. Title I reform could occupy a high place among the joint commission's priorities. Community colleges have been poorly served by Title I as it presently functions; yet if it is retailored to support institutional change that would make college programs as responsive to working adults and part-time students as they are to traditional students, community col-

leges could become a leading participant.

If the Pell grant reforms enacted in the 1980 amendments to HEA had been fully implemented, they surely would have eased some of the frustrations that community colleges feel in their attempts to serve more effectively the jobless, disadvantaged, and minorities. Unfortunately, President Reagan and the Congress have not found it possible to provide the funds to make the 1980 amendments operative. If they were fully funded, community colleges quite likely would have found their enrollments continuing to grow the last two years, rather than leveling off as they have.

The covered cost allowance and the so-called half-cost formula surely will remain key issues for the community colleges in the reauthorization. The joint commission could also choose to press such Pell grant issues as child care coverage for self-supporting parents; treating independent and dependent students alike under family contribution schedules; and waiver of the half-cost cap for students attending low-tuition colleges. All of the prevailing Pell grant schedules discriminate against low-tuition schools, and community colleges should be leading the fight for more equitable treatment of students who prefer to attend such institutions.

Other initiatives on the agenda of unfinished business that the commission will continue to push in the new Congress could include the Skilled Enlisted Reserve Training Act (SERTA), the Bennett-Thurmond bill, on which the Senate Subcommittee on Manpower and Personnel has completed two impressively positive hearings, and the Grassley bill. The Bennett-Thurmond bill, under which the services would program much of their advanced technician training into associate degree institutions, is bound to have the same strong, if not stronger, bipartisan sponsorship in the new Congress than it had in the 98th Congress, where some 70 House members signed it. Senator Charles E. Grassley (R-IA) has expressed the desire to renew his push for better tax incentives that would encourage industry to provide state-of-the-art equipment and instructional assistance for postsecondary technician training.

Among new issues that seem certain to become bills in the new Congress, look for technology transfer to be among those of which community colleges and the joint commission push their own initiatives. Senator Pell already has offered a bill that would make the "learning technologies" emerging from federally sponsored programs more accessible to educational systems. For community colleges, though, the issue is broader. Community college classrooms, particularly the technician courses, could serve the nation as an exceptional medium for the transfer of applied research and new technology flowing from the vast field of federally sponsored scientific and engineering projects. Small business and other employers, for example, would benefit dramatically if the emerging technology were to move more quickly into the conveniently available courses that the two-year colleges offer.

All in all, you can be sure that the Joint Commission on Federal Relations will be primed with an impressive and imaginative agenda when the new Congress convenes in mid-January.

Frank Mensel, vice president for federal relations, is also director of federal relations for the Association of Community College Trustees.

AACJC LETTER

AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES

One national newsletter for community, technical and junior colleges
Dale Parnell, Editor

January 8, 1985 - No. 124

ENCLOSURES
Associate in Applied Science
Call for Comments
Washington Transfer Agreement
Credit Decision Guidelines
Going for the $$

Dear Colleague:

Making It Work

When two- and four-year colleges work together to encourage student transfers, it's a win-win situation. Students win when they can easily transfer credits and when they experience little break in the continuity of the learning experience. Four-year colleges win when the volume of transfer students increases. And two-year colleges win when the associate degree is recognized as a degree of excellence.

How Do They Do When They Get There?

Piedmont Virginia Community College has conducted a fascinating study of how well its students perform after they transfer to a four-year college or university. PVCC studied graduates who transferred to the University of Virginia between 1978 and 1983 with the following results:

PVCC graduates who transferred and spent their junior and senior years at UVA slightly out-performed their classmates who entered the university as freshmen. PVCC transfers earned a 3.15 grade point average at UVA; students who entered UVA as freshmen had a 3.09 average. The average age of PVCC students transferring to UVA was almost 28. Some had been out of school for 15 years; at least two had earned GED's (high school equivalency diplomas) prior to entering PVCC. Twenty percent of the PVCC transfers had previously been denied admission to UVA as freshmen.

PVCC President George Vaughan feels the transfer students' good performances at UVA demonstrate that they gained an important value at PVCC. Many of these students started at points well below those of UVA's regular admission students, but they had achieved parity by the end of the junior year.

Associate Degree Recognized

Washington Transfer Agreement

Under the leadership of Director John Tevey, the Washington State Board for Community College Education has developed the state's first comprehensive policy for the transfer of credits among Washington's higher education institutions. The state's Council for Postsecondary Education has adopted the policy, which now will be submitted to Washington's 1985 legislative session in accordance with enabling legislation passed in 1983. Under the agreement, the associate degree will be accepted as satisfying the general education requirements for the baccalaureate degree at receiving institutions. The full policy statement is included with this letter as a brief.

November 1984 issue of
ır-year bachelor of engi-
ween fall 1982 and fall
ABET-accredited
ighest enrollments at
e accompanying table
at least one curriculum
report in *ENGINEERING*
S, 345 East 47th

	Fall 1980	Fall 1981	Fall 1982	Fall 1983
102	22 127	21 483	14 123	23 995
985	13 302	14 434	11 505	16 828
	784	541	221	709
805	11 542	12 389	11 349	18 719
347	47 755	48 847	37 198	60 096
	17 395	16 639	13 442	24 134
	166	161	154	161

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Learning: Realizing
ER COMMENTS, November
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the Association of American Colleges early in 1985. Expected late next year is a report sponsored by the Carnegie Foundation and coordinated by *Ernest Boyer* which will examine college campuses in much the way Boyer's widely praised report, High School, examined that level.

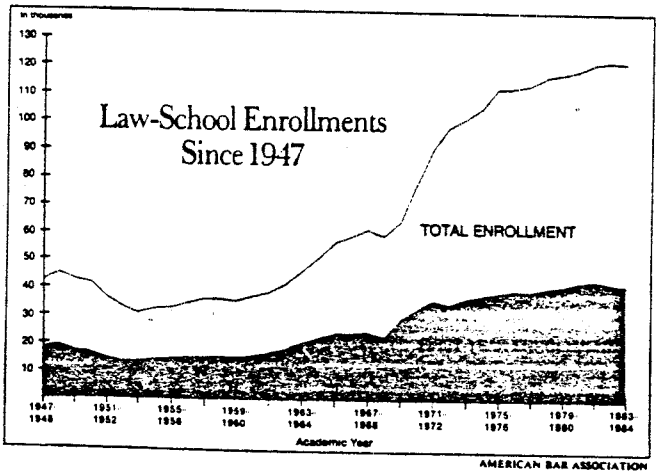
* * * * * * * * * * *

Two-year colleges are suffering their largest decline in enrollment in more than 20 years, with enrollment expected to drop about 4% nationwide below last year. The most important factor in the sharp drop seems to be the recent improvement in the unemployment rate. There is a part of the community college student body who will go to college or not depending upon whether a job is available. There is also a continuing shrinkage in the pool of college-age students. Particularly at community colleges, older students have increased the enrollments over the past decade, but the older student market too may be nearing a point of saturation.

Total enrollments in U.S. medical schools also dropped this fall for the first time in 37 years and for the third year in a row, the number of first-year students declined slightly, according to the Association of American Medical Colleges. AAMC reported 67,016 students enrolled in medical schools in fall 1984, down from 67,327 last year.

First-year medical students totalled 16,997 this year, down from 17,150 in fall 1983. Breakouts by sex and minority status are shown on page 23.

Although five medical schools have increased the size of their entering classes by five or more students, 12 other schools reduced the size of their classes, citing reduced government funding in the face of a report predicting a surplus of doctors in coming years. During the past five years, the total number of first-year slots in medical school has dropped by 515 says AAMC.



Law school enrollments also dropped last year for the first time since 1968. Overall, the number of applications was down 10.8%, total enrollment dropped 0.5%, and first-year enrollment dropped about 2% from 42,034 to 41,159. The decrease has occurred despite increases in the number of women and minority students and despite the

Trends in Total Enrollment in Institutions of Higher Education, by Level of Institution and Race/Ethnicity: Fall 1976 to Fall 1982

Race/Ethnicity and citizenship	Number Enrolled				% Enrolled			
	76	78	80	82	76	78	80	82
4-year institutions	7,090	7,187	7,548	7,629	100.0	100.0	100.0	100.0
White, non-Hispanic	5,984	6,013	6,259	6,289	84.4	83.7	82.9	82.4
Total Minority	930	973	1,048	1,070	13.1	13.5	13.9	14.0
Black, non-Hispanic	603	611	633	611	8.5	8.5	8.4	8.0
Hispanic	173	190	216	228	2.4	2.6	2.9	3.0
Asian or Pacific Islander	118	137	162	193	1.7	1.9	2.1	2.5
American Indian/ Alaskan Native	35	35	37	38	.5	.5	.5	.5
Non-resident alien	176	200	241	269	2.5	2.8	3.2	3.5
2-year institutions	3,880	4,028	4,490	4,699	100.0	100.0	100.0	100.0
White, non-Hispanic	3,077	3,167	3,532	3,657	79.3	78.6	78.7	77.8
Total Minority	761	810	894	981	19.6	20.1	19.9	20.9
Black, non-Hispanic	429	443	468	483	11.1	11.0	10.4	10.3
Hispanic	210	227	255	291	5.4	5.6	5.7	6.2
Asian or Pacific Islander	79	97	124	158	2.0	2.4	2.8	3.4
American Indian/ Alaskan Native	41	43	47	49	1.1	1.1	1.0	1.0
Non-resident alien	42	52	64	61	1.1	1.3	1.4	1.3
Total	10,970	11,215	12,038	12,328	100	100	100	100
White	9,061	9,180	9,791	9,946	82.6	81.9	81.3	80.7
Total Minority	1,691	1,783	1,942	2,051	15.4	15.9	16.1	16.6
Black	1,032	1,054	1,101	1,094	9.4	9.4	9.2	8.9
Hispanic	383	417	471	519	3.5	3.7	3.9	4.2
Asian-Pacific	197	234	286	351	1.8	2.1	2.4	2.8
Native American	76	78	84	87	.7	.7	.7	.7
Non-resident Alien	218	252	305	330	2.0	2.2	2.5	2.7

NOTE: Excludes enrollment in U.S. Service Schools that are included in tabulations presented elsewhere in this publication. Numbers in thousands; percentages may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, Office for Civil Rights, unpublished tabulations (December 1983) and National Center for Education Statistics, Opening Fall Enrollment, Fall 1982, unpublished tabulations (December 1983).

OCR,unpublished tabulations, reported NCES, Condition of Education,84 p.76. Full table attached.

FACT-FILE

Fall 1983 Enrollment

By type and control of institutions

	All students			Full-time students			Part-time students		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Public institutions									
Doctoral	2,410,724	1,264,094	1,146,630	1,822,398	985,965	836,433	588,326	278,129	310,197
Comprehensive	2,208,259	1,036,273	1,171,986	1,450,817	709,976	740,841	757,442	326,297	431,145
General baccalaureate	397,002	188,297	208,705	242,802	120,511	122,291	154,200	67,786	86,414
2-year	4,456,073	1,983,366	2,472,707	1,614,670	802,650	812,020	2,841,403	1,180,716	1,660,687
All*	9,682,734	4,610,038	5,072,696	5,299,115	2,737,067	2,562,048	4,383,619	1,872,971	2,510,648
Private institutions									
Doctoral	632,888	351,807	281,081	461,036	266,337	194,699	171,852	85,470	86,382
Comprehensive	669,089	337,275	331,814	422,749	215,520	207,229	246,340	121,755	124,585
General baccalaureate	752,859	331,236	421,623	574,378	262,129	312,249	178,481	69,107	109,374
2-year	269,306	121,291	148,015	214,558	99,927	114,631	54,748	21,364	33,384
All*	2,781,927	1,413,687	1,368,240	1,961,935	1,022,720	939,215	819,992	390,967	429,025
All institutions									
Doctoral	3,043,612	1,615,901	1,427,711	2,283,434	1,252,302	1,031,132	760,178	363,599	396,579
Comprehensive	2,877,348	1,373,548	1,503,800	1,873,566	925,496	948,070	1,003,782	448,052	555,730
General baccalaureate	1,149,861	519,533	630,328	817,180	382,640	434,540	332,681	136,893	195,788
2-year	4,725,379	2,104,657	2,620,722	1,829,228	902,577	926,651	2,896,151	1,202,080	1,694,071
All*	**12,464,661**	**6,023,725**	**6,440,936**	**7,261,050**	**3,759,787**	**3,501,263**	**5,203,611**	**2,263,938**	**2,939,673**

By student level

Undergraduate									
Doctoral	2,096,918	1,104,076	902,842	1,804,872	963,028	841,844	292,046	141,048	150,998
Comprehensive	2,201,406	1,063,556	1,137,850	1,711,407	839,364	872,043	489,999	224,192	265,807
General baccalaureate	988,055	448,822	539,233	789,379	367,369	422,010	198,676	81,453	117,223
2-year	4,008,032	1,805,552	2,202,480	1,742,984	859,218	883,766	2,265,048	946,334	1,318,714
All*	9,707,171	4,678,321	5,028,850	6,363,707	3,226,937	3,136,770	3,343,464	1,451,384	1,892,080
First-time freshmen									
Doctoral	388,681	197,188	191,493	367,466	187,409	180,057	21,215	9,779	11,436
Comprehensive	415,291	196,167	219,124	367,191	174,433	192,758	48,100	21,734	26,366
General baccalaureate	234,082	106,476	127,606	207,983	95,727	112,256	26,099	10,749	15,350
2-year	1,308,268	597,432	710,836	664,245	324,577	339,668	644,023	272,855	371,168
All public*	1,918,113	900,656	1,017,457	1,220,843	603,354	617,489	697,270	297,302	399,968
All private*	525,590	258,393	267,197	457,228	221,255	235,973	68,362	37,138	31,224
All*	2,443,703	1,159,049	1,284,654	1,678,071	824,609	853,462	765,632	334,440	431,192
Graduate									
Doctoral	591,449	325,376	266,073	317,660	188,040	129,620	273,789	137,336	136,453
Comprehensive	381,388	177,700	203,688	86,716	44,181	42,535	294,672	133,519	161,153
General baccalaureate	30,982	13,931	17,051	5,909	3,184	2,725	25,073	10,747	14,326
2-year	2,113	1,439	674	413	193	220	1,700	1,246	454
All*	1,104,808	577,448	527,360	456,625	264,576	192,049	648,183	312,872	335,311
First professional									
Doctoral	131,696	85,408	46,288	123,848	80,585	43,263	7,846	4,823	3,025
Comprehensive	40,325	25,770	14,555	33,553	21,438	12,115	6,772	4,332	2,440
General baccalaureate	7,594	5,455	2,139	6,125	4,334	1,791	1,469	1,121	348
Specialized	96,099	69,504	26,595	83,755	61,057	22,698	12,344	8,447	3,897
All*	278,529	188,096	90,433	249,636	169,071	80,565	28,893	19,025	9,868
Unclassified									
All	1,374,153	579,860	794,293	191,082	99,203	91,879	1,183,071	480,657	702,414

By state

	Public institutions	Private institutions	Total
Alabama	149,986	21,395	171,381
Alaska	25,084	961	26,045
Arizona	201,281	12,156	213,437
Arkansas	65,483	11,219	76,702
California	1,529,005	201,842	1,730,847
Colorado	152,419	20,231	172,650
Connecticut	102,720	61,624	164,344

	Public institutions	Private institutions	Total
New Jersey	250,861	63,607	314,468
New Mexico	63,355	2,739	66,094
New York	579,465	443,056	1,022,521
North Carolina	242,034	59,641	301,675
North Dakota	34,770	2,821	37,591
Ohio	395,209	140,383	535,592
Oklahoma	151,288	22,883	174,171

[illegible]	[illegible]	[illegible]	[illegible]	214,558	99 927	114 631	[illegible]	[illegible]	[illegible]
All*	2,781,927	1,413,687	1,368,240	1,961,935	1,022,720	939,215	[illegible]	[illegible]	[illegible]
All institutions									
Doctoral	3,043 612	1,615 901	1 427 711	2 283,434	1,252,302	1,031 132	760 178	363,[illegible]	[illegible]
Comprehensive	2,877 348	1 373 548	1,503,800	1,873,566	925,496	948 070	1,003,782	448 0[illegible]	[illegible]
General baccalaureate	1,149 861	519,533	630,328	817,180	382,640	434 540	332 681	136,853	[illegible]
2-year	4,725,379	2,104,657	2,620,722	1,629,228	902,577	926.651	2,896,151	1,202,080	[illegible]
All*	**12,464,661**	**6,023,725**	**6,440,936**	**7,261,050**	**3,759,787**	**3,501,263**	**5,203,611**	**2,263,938**	**2,939,673**

By student level

Undergraduate									
Doctoral	2,096,918	1,104,076	902 842	1,804,872	963,028	841,844	292,046	141 048	150,998
Comprehensive	2 201 406	1,063 556	1,137,850	1,711,407	839 364	872 043	489,999	224 192	265 807
General baccalaureate	968 055	448 822	539 233	789,379	367,369	422,010	198,676	81 453	117,223
2-year	4,008,032	1,805 552	2,202,480	1,742,984	859,218	883 766	2,265 048	946 334	1 318 714
All*	9.707,171	4.678,321	5,028,850	6.363,707	3.226,937	3,136,770	3,343,464	1,451.384	1,892,080
First-time freshmen									
Doctoral	388 681	197,188	191 493	367,466	187 409	180 057	21 215	9 779	11 436
Comprehensive	415 291	196 167	219,124	367,191	174 433	192 758	48,100	21 734	26 366
General baccalaureate	234 082	106 476	127,606	207,983	95 727	112,256	26 099	10 749	15 350
2-year	1 308 268	597 432	710 836	664 245	324 577	339 668	644 023	272 855	371 168
All public*	1 918 113	900.656	1,017 457	1,220,843	603,354	617 489	697,270	297 302	399 968
All private*	525 590	258,393	267 197	457,228	221 255	235 973	68 362	37 138	31 224
All*	2,443,703	1,159,049	1,284,654	1,678,071	824,609	853,462	765.632	334,440	431,192
Graduate									
Doctoral	591 449	325,376	266,073	317,660	188,040	129 620	273 789	137 336	136 453
Comprehensive	351 368	177,700	203 688	86 716	44,181	42 535	294,672	133 519	161 153
General baccalaureate	30 982	13 931	17 051	5,909	3,184	2,725	25,073	10 747	14,326
2-year	2 113	1,439	674	413	193	220	1,700	1,246	454
All*	1,104,808	577,448	527,360	456,625	264,576	192,049	648,183	312,672	335,311
First professional									
Doctoral	131 696	85 408	46,288	123,848	80.585	43,263	7,848	4,823	3,025
Comprehensive	40 325	25,770	14,555	33,553	21 438	12 115	6,772	4 332	2 440
General baccalaureate	7,594	5 455	2,139	6,125	4,334	1,791	1,469	1,121	348
Specialized	96,099	69,504	26,595	83,755	61,057	22 698	12,344	8 447	3 897
All*	278,529	188 096	90,433	249,636	169,071	80,565	28.893	19,025	9.868
Unclassified									
All	1,374,153	579,860	794,293	191,082	99,203	91,879	1,183,071	480,657	702,414

By state

	Public Institutions	Private Institutions	Total
Alabama	149 986	21,395	171,381
Alaska	25 084	961	26,045
Arizona	201,281	12,156	213,437
Arkansas	65 483	11,219	76 702
California	1,529,005	201,842	1,730,847
Colorado	152 419	20,231	172,650
Connecticut	102 720	61,624	164,344
Delaware	27,898	4,047	31,945
District of Columbia	14,270	66,097	80,367
Florida	357,286	86,150	443,436
Georgia	154 142	47,311	201,453
Hawaii	46 241	5,824	52 065
Idaho	34,418	8,493	42,911
Illinois	516 720	156,364	673 084
Indiana	196,917	59,553	256 470
Iowa	109 652	43,316	152 968
Kansas	127 166	14,543	141,709
Kentucky	116 323	30 180	146,503
Louisiana	155 470	24,177	179,647
Maine	33,829	19,518	53,347
Maryland	206,704	32,528	239,232
Massachusetts	185 979	237,369	423,348
Michigan	444 229	71,531	515,760
Minnesota	168 259	45 960	214 219
Mississippi	97,864	11,864	109,728
Missouri	177,061	71,268	248,329
Montana	33 744	4,133	37,877
Nebraska	77,609	17,553	95 162
Nevada	43 379	389	43 768
New Hampshire	26 456	26 687	53,143
New Jersey	250 861	63 607	314 468
New Mexico	63,355	2,739	66 094
New York	579 465	443,056	1,022,521
North Carolina	242 034	59,641	301,675
North Dakota	34,770	2,821	37,591
Ohio	395,209	140 383	535 592
Oklahoma	151,288	22,883	174,171
Oregon	122,603	18,569	141,172
Pennsylvania	307,387	237,725	545 112
Rhode Island	35,581	35,230	70 811
South Carolina	106,779	27,753	134 532
South Dakota	26 158	8,721	34 879
Tennessee	159,061	48,716	207,777
Texas	702,847	92,894	795 741
Utah	68,255	35,069	103 324
Vermont	18,656	12,650	31,306
Virginia	251,099	37,489	288 588
Washington	199,391	30 248	229 639
West Virginia	71,715	11,487	83 202
Wisconsin	241,788	35,963	277,751
Wyoming	23,844	0	23,844
U.S. Service Schools	52,994	0	52,994
Total	**9,682,734**	**2,781,927**	**12,464,661**
American Samoa	845	0	845
Guam	3,436	0	3,436
North Marianas	173	0	173
Puerto Rico	59,557	101,656	161 215
Trust Territories Pacific Islands	736	0	736
Virgin Islands	2,864	0	2,864

*Includes students enrolled in specialized institutions and new institutions not yet classified

SOURCE: NATIONAL CENTER FOR EDUCATION STATISTICS

November 1984 issue of
ur-year bachelor of engi-
tween fall 1982 and fall
ABET-accredited
ighest enrollments at
he accompanying table
g at least one curriculum
report in *ENGINEERING*
S, 345 East 47th

	Fall 1980	Fall 1981	Fall 1982	Fall 1983
	18 102	22 127	21 483	14 123	23 995
	10 985	13 302	14 434	11 505	16 828
		784	541	221	709
	8 605	11 542	12 389	11 349	18 719
	38 347	47 755	48 847	37 198	60 096
		17 395	18 639	13 442	24 134
		166	161	154	161

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Learning: Realizing
MANPOWER COMMENTS, November
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the Association of American Colleges early in 1985. Expected late next year is a report sponsored by the Carnegie Foundation and coordinated by *Ernest Boyer* which will examine college campuses in much the way Boyer's widely praised report, High School, examined that level.

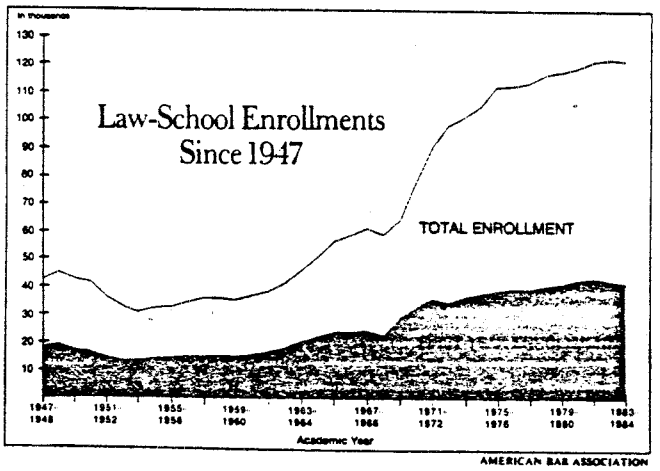
* * * * * * * * * * *

Two-year colleges are suffering their largest decline in enrollment in more than 20 years, with enrollment expected to drop about 4% nationwide below last year. The most important factor in the sharp drop seems to be the recent improvement in the unemployment rate. There is a part of the community college student body who will go to college or not depending upon whether a job is available. There is also a continuing shrinkage in the pool of college-age students. Particularly at community colleges, older students have increased the enrollments over the past decade, but the older student market too may be nearing a point of saturation.

Total enrollments in U.S. medical schools also dropped this fall for the first time in 37 years and for the third year in a row, the number of first-year students declined slightly, according to the Association of American Medical Colleges. AAMC reported 67,016 students enrolled in medical schools in fall 1984, down from 67,327 last year.

First-year medical students totalled 16,997 this year, down from 17,150 in fall 1983. Breakouts by sex and minority status are shown on page 23.

Although five medical schools have increased the size of their entering classes by five or more students, 12 other schools reduced the size of their classes, citing reduced government funding in the face of a report predicting a surplus of doctors in coming years. During the past five years, the total number of first-year slots in medical school has dropped by 515 says AAMC.



Law school enrollments also dropped last year for the first time since 1968. Overall, the number of applications was down 10.8%, total enrollment dropped 0.5%, and first-year enrollment dropped about 2% from 42,034 to 41,159. The decrease has occurred despite increases in the number of women and minority students and despite the

Trends in Total Enrollment in Institutions of Higher Education, by Level of Institution and Race/Ethnicity: Fall 1976 to Fall 1982

Race/Ethnicity and citizenship	Number Enrolled				% Enrolled			
	76	78	80	82	76	78	80	82
4-year institutions	7,090	7,187	7,548	7,629	100.0	100.0	100.0	100.0
White, non-Hispanic	5,984	6,013	6,259	6,289	84.4	83.7	82.9	82.4
Total Minority	930	973	1,048	1,070	13.1	13.5	13.9	14.0
Black, non-Hispanic	603	611	633	611	8.5	8.5	8.4	8.0
Hispanic	173	190	216	228	2.4	2.6	2.9	3.0
Asian or Pacific Islander	118	137	162	193	1.7	1.9	2.1	2.5
American Indian/ Alaskan Native	35	35	37	38	.5	.5	.5	.5
Non-resident alien	176	200	241	269	2.5	2.8	3.2	3.5
2-year institutions	3,880	4,028	4,490	4,699	100.0	100.0	100.0	100.0
White, non-Hispanic	3,077	3,167	3,532	3,657	79.3	78.6	78.7	77.8
Total Minority	761	810	894	981	19.6	20.1	19.9	20.9
Black, non-Hispanic	429	443	468	483	11.1	11.0	10.4	10.3
Hispanic	210	227	255	291	5.4	5.6	5.7	6.2
Asian or Pacific Islander	79	97	124	158	2.0	2.4	2.8	3.4
American Indian/ Alaskan Native	41	43	47	49	1.1	1.1	1.0	1.0
Non-resident alien	42	52	64	61	1.1	1.3	1.4	1.3
Total	10,970	11,215	12,038	12,328	100	100	100	100
White	9,061	9,180	9,791	9,946	82.6	81.9	81.3	80.7
Total Minority	1,691	1,783	1,942	2,051	15.4	15.9	16.1	16.6
Black	1,032	1,054	1,101	1,094	9.4	9.4	9.2	8.9
Hispanic	383	417	471	519	3.5	3.7	3.9	4.2
Asian-Pacific	197	234	286	351	1.8	2.1	2.4	2.8
Native American	76	78	84	87	.7	.7	.7	.7
Non-resident Alien	218	252	305	330	2.0	2.2	2.5	2.7

NOTE: Excludes enrollment in U.S. Service Schools that are included in tabulations presented elsewhere in this publication. Numbers in thousands; percentages may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, Office for Civil Rights, unpublished tabulations (December 1983) and National Center for Education Statistics, Opening Fall Enrollment, Fall 1982, unpublished tabulations (December 1983).

OCR, unpublished tabulations, reported NCES, Condition of Education, 84 p.76. Full table attached.

FACT-FILE

Fall 1983 Enrollment

By type and control of institutions

	All students			Full-time students			Part-time students		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Public institutions									
Doctoral	2,410,724	1,264,094	1,146,630	1,822,398	985,965	836,433	588,326	278,129	310,197
Comprehensive	2,208,259	1,036,273	1,171,986	1,450,817	709,976	740,841	757,442	326,297	431,145
General baccalaureate	397,002	188,297	208,705	242,802	120,511	122,291	154,200	67,786	86,414
2-year	4,456,073	1,983,366	2,472,707	1,614,670	802,650	812,020	2,841,403	1,180,716	1,660,687
All*	9,682,734	4,610,038	5,072,696	5,299,115	2,737,067	2,562,048	4,383,619	1,872,971	2,510,648
Private institutions									
Doctoral	632,888	351,807	281,081	461,036	266,337	194,699	171,852	85,470	86,382
Comprehensive	669,089	337,275	331,814	422,749	215,520	207,229	246,340	121,755	124,585
General baccalaureate	752,859	331,236	421,623	574,378	262,129	312,249	178,481	69,107	109,374
2-year	269,306	121,291	148,015	214,558	99,927	114,631	54,748	21,364	33,384
All*	2,781,927	1,413,687	1,368,240	1,961,935	1,022,720	939,215	819,992	390,967	429,025
All institutions									
Doctoral	3,043,612	1,615,901	1,427,711	2,283,434	1,252,302	1,031,132	760,178	363,599	396,579
Comprehensive	2,877,348	1,373,548	1,503,800	1,873,566	925,496	948,070	1,003,782	448,052	555,730
General baccalaureate	1,149,861	519,533	630,328	817,180	382,640	434,540	332,681	136,893	195,788
2-year	4,725,379	2,104,657	2,620,722	1,829,228	902,577	926,651	2,896,151	1,202,080	1,694,071
All*	**12,464,661**	**6,023,725**	**6,440,936**	**7,261,050**	**3,759,787**	**3,501,263**	**5,203,611**	**2,263,938**	**2,939,673**

By student level

Undergraduate									
Doctoral	2,096,918	1,104,076	902,842	1,804,872	963,028	841,844	292,046	141,048	150,998
Comprehensive	2,201,406	1,063,556	1,137,850	1,711,407	839,364	872,043	489,999	224,192	265,807
General baccalaureate	988,055	448,822	539,233	789,379	367,369	422,010	198,676	81,453	117,223
2-year	4,008,032	1,805,552	2,202,480	1,742,984	859,218	883,766	2,265,048	946,334	1,318,714
All*	9,707,171	4,678,321	5,028,850	6,363,707	3,226,937	3,136,770	3,343,464	1,451,384	1,892,080
First-time freshmen									
Doctoral	388,681	197,188	191,493	367,466	187,409	180,057	21,215	9,779	11,436
Comprehensive	415,291	196,167	219,124	367,191	174,433	192,758	48,100	21,734	26,366
General baccalaureate	234,082	106,476	127,606	207,983	95,727	112,256	26,099	10,749	15,350
2-year	1,308,268	597,432	710,836	664,245	324,577	339,668	644,023	272,855	371,168
All public*	1,916,113	900,656	1,017,457	1,220,843	603,354	617,489	697,270	297,302	399,968
All private*	525,590	258,393	267,197	457,228	221,255	235,973	68,362	37,138	31,224
All*	2,443,703	1,159,049	1,284,654	1,678,071	824,609	853,462	765,632	334,440	431,192
Graduate									
Doctoral	591,449	325,376	266,073	317,660	188,040	129,620	273,789	137,336	136,453
Comprehensive	381,388	177,700	203,688	86,716	44,181	42,535	294,672	133,519	161,153
General baccalaureate	30,982	13,931	17,051	5,909	3,184	2,725	25,073	10,747	14,326
2-year	2,113	1,439	674	413	193	220	1,700	1,246	454
All*	1,104,808	577,448	527,360	456,625	264,576	192,049	648,183	312,872	335,311
First professional									
Doctoral	131,696	85,408	46,288	123,848	80,585	43,263	7,848	4,823	3,025
Comprehensive	40,325	25,770	14,555	33,553	21,438	12,115	6,772	4,332	2,440
General baccalaureate	7,594	5,455	2,139	6,125	4,334	1,791	1,469	1,121	348
Specialized	96,099	69,504	26,595	83,755	61,057	22,698	12,344	8,447	3,897
All*	278,529	188,096	90,433	249,636	169,071	80,565	28,893	19,025	9,868
Unclassified									
All	1,374,153	579,860	794,293	191,082	99,203	91,879	1,183,071	480,657	702,414

By state

	Public institutions	Private institutions	Total
Alabama	149,986	21,395	171,381
Alaska	25,084	961	26,045
Arizona	201,281	12,156	213,437
Arkansas	65,483	11,219	76,702
California	1,529,005	201,842	1,730,847
Colorado	152,419	20,231	172,650
Connecticut	102,720	61,624	164,344

	Public institutions	Private institutions	Total
New Jersey	250,861	63,607	314,468
New Mexico	63,355	2,739	66,094
New York	579,465	443,056	1,022,521
North Carolina	242,034	59,641	301,675
North Dakota	34,770	2,821	37,591
Ohio	395,209	140,383	535,592
Oklahoma	151,288	22,883	174,171

[illegible]	[illegible]	[illegible]	[illegible]	214,558	99,927	114,631	[illegible]	[illegible]	[illegible]
All*	2,781,927	1,413,667	1,368,240	1,961,935	1,022,720	939,215	[illegible]	[illegible]	[illegible]
All institutions									
Doctoral	3,043,612	1,615,901	1,427,711	2,283,434	1,252,302	1,031,132	760,178	[illegible]	[illegible]
Comprehensive	2,877,348	1,373,548	1,503,800	1,873,566	925,496	948,070	1,003,782	448,052	[illegible]
General baccalaureate	1,149,861	519,533	630,328	817,180	382,640	434,540	332,681	136,893	[illegible]
2-year	4,725,379	2,104,657	2,620,722	1,829,228	902,577	926,651	2,896,151	1,202,080	[illegible]
All*	**12,464,661**	**6,023,725**	**6,440,936**	**7,261,050**	**3,759,787**	**3,501,263**	**5,203,611**	**2,263,938**	**2,939,673**

By student level

Undergraduate									
Doctoral	2,096,918	1,104,076	902,842	1,804,872	963,028	841,844	292,046	141,048	150,998
Comprehensive	2,201,406	1,063,556	1,137,850	1,711,407	839,364	872,043	489,999	224,192	265,807
General baccalaureate	988,055	448,822	539,233	789,379	367,369	422,010	198,676	81,453	117,223
2-year	4,008,032	1,805,552	2,202,480	1,742,984	859,218	883,766	2,265,048	946,334	1,318,714
All*	9,707,171	4,678,321	5,028,850	6,363,707	3,226,937	3,136,770	3,343,464	1,451,384	1,892,080
First-time freshmen									
Doctoral	388,681	197,188	191,493	367,466	187,409	180,057	21,215	9,779	11,436
Comprehensive	415,291	196,167	219,124	367,191	174,433	192,758	48,100	21,734	26,366
General baccalaureate	234,082	106,476	127,606	207,983	95,727	112,256	26,099	10,749	15,350
2-year	1,308,268	597,432	710,836	664,245	324,577	339,668	644,023	272,855	371,168
All public*	1,918,113	900,656	1,017,457	1,220,843	603,354	617,489	697,270	297,302	399,968
All private*	525,590	258,393	267,197	457,228	221,255	235,973	68,362	37,138	31,224
All*	2,443,703	1,159,049	1,284,654	1,678,071	824,609	853,462	765,632	334,440	431,192
Graduate									
Doctoral	591,449	325,376	266,073	317,660	188,040	129,620	273,789	137,336	136,453
Comprehensive	381,388	177,700	203,688	86,716	44,181	42,535	294,672	133,519	161,153
General baccalaureate	30,982	13,931	17,051	5,909	3,184	2,725	25,073	10,747	14,326
2-year	2,113	1,439	674	413	193	220	1,700	1,246	454
All*	1,104,808	577,448	527,360	456,625	264,576	192,049	648,183	312,872	335,311
First professional									
Doctoral	131,696	85,408	46,288	123,848	80,585	43,263	7,848	4,823	3,025
Comprehensive	40,325	25,770	14,555	33,553	21,438	12,115	6,772	4,332	2,440
General baccalaureate	7,594	5,455	2,139	6,125	4,334	1,791	1,469	1,121	348
Specialized	95,099	69,504	26,595	83,755	61,057	22,698	12,344	8,447	3,897
All*	278,529	188,096	90,433	249,636	169,071	80,565	28,893	19,025	9,868
Unclassified									
All	1,374,153	579,860	794,293	191,082	99,203	91,879	1,183,071	480,657	702,414

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Colorado	152,419	20,231	172,650
Connecticut	102,720	61,624	164,344
Delaware	27,898	4,047	31,945
District of Columbia	14,270	66,097	80,367
Florida	357,286	86,150	443,436
Georgia	154,142	47,311	201,453
Hawaii	46,241	5,824	52,065
Idaho	34,418	8,493	42,911
Illinois	516,720	156,364	673,084
Indiana	196,917	59,553	256,470
Iowa	109,652	43,316	152,968
Kansas	127,166	14,543	141,709
Kentucky	116,323	30,180	146,503
Louisiana	155,470	24,177	179,647
Maine	33,829	19,518	53,347
Maryland	206,704	32,528	239,232
Massachusetts	185,979	237,369	423,348
Michigan	444,229	71,531	515,760
Minnesota	168,259	45,960	214,219
Mississippi	97,864	11,864	109,728
Missouri	177,061	71,268	248,329
Montana	33,744	4,133	37,877
Nebraska	77,609	17,553	95,162
Nevada	43,379	389	43,768
New Hampshire	26,456	26,687	53,143
New Jersey	250,861	63,607	314,468
New Mexico	63,355	2,739	66,094
New York	579,465	443,056	1,022,521
North Carolina	242,034	59,641	301,675
North Dakota	34,770	2,821	37,591
Ohio	395,209	140,383	535,592
Oklahoma	151,288	22,883	174,171
Oregon	122,603	18,569	141,172
Pennsylvania	307,387	237,725	545,112
Rhode Island	35,581	35,230	70,811
South Carolina	106,779	27,753	134,532
South Dakota	26,158	8,721	34,879
Tennessee	159,061	48,716	207,777
Texas	702,847	92,894	795,741
Utah	68,255	35,069	103,324
Vermont	18,656	12,650	31,306
Virginia	251,099	37,489	288,588
Washington	199,391	30,248	229,639
West Virginia	71,715	11,487	83,202
Wisconsin	241,788	35,963	277,751
Wyoming	23,844	0	23,844
U.S. Service Schools	52,994	0	52,994
Total	**9,682,734**	**2,781,927**	**12,464,661**
American Samoa	845	0	845
Guam	3,436	0	3,436
North Marianas	173	0	173
Puerto Rico	59,557	101,658	161,215
Trust Territories Pacific Islands	736	0	736
Virgin Islands	2,864	0	2,864

*Includes students enrolled in specialized institutions and new institutions not yet classified

SOURCE: NATIONAL CENTER FOR EDUCATION STATISTICS

The New York Times, Sunday, February 24, 1985

Enrollment at 2-Year Colleges Starting to Slip

By LISA WOLFE

After more than 25 years of growth, enrollment at community colleges in New York, New Jersey and Connecticut dropped last fall. Faced with the prospect of further decline, the schools are adjusting their programs to attract nontraditional students.

The decline, similar to those at community colleges across the country, reflects a falling birth rate and a healthy economy that prompts people to work rather than study, education officials said.

"This is the first danger signal," said Dr. Donald Nolan, Deputy Commissioner of Education in New York State.

The falloff in enrollment has encouraged administrators to intensify recruiting efforts and modify the curriculums of the schools.

Although there was a slight nationwide decline in enrollment in 1976, when some veterans benefits expired, the officials said this school year marked the first significant drop since the proliferation of two-year community colleges that began in the mid-1950's.

Full-time enrollment at state-run community colleges in New York declined 4.9 percent this fall, while Connecticut and New Jersey reported decreases of more than 9 percent.

Over the last two decades, community colleges have been the fastest-growing segment of American higher education. Operating with an open-admissions policy and specializing in career-oriented programs, they extended education beyond high school to millions of students.

A uniquely American institution, these two-year colleges featured flexible schedules and other conveniences that created a revolution in adult part-time study. Many were in densely populated areas and worked closely with local employers and government agencies.

Although enrollment in four-year colleges and universities began to decline in the early 1980's, the continued growth of community colleges prevented an overall drop in students seeking higher education.

But even with the first sign of a decline in two-year colleges last fall, most school administrators said they were not worried that enrollment would plummet. They conceded that there was little to do to curtail the drop in full-time enrollment, which is mainly a product of demographics. But they said they expected that innovative recruiting efforts would keep part-time enrollment steady and enable the colleges to compensate for other losses.

"We have more and more students taking fewer and fewer hours of class," said John Birkholz, the president of Erie Community College in Buffalo, summing up the trend. While that school experienced a 10 percent drop in full-time enrollment last fall, Dr. Birkholz said he expected registration to stabilize within the next two years because of more vigorous recruiting.

Recruiting campaigns, which have included radio and television advertisements and registration sessions in shopping malls, have broadened both the social makeup of the institutions and their curriculums.

The result has been an older student body. To take care of some of the needs of such students, a number of community colleges have set up licensed day-care centers on campus. According to officials, 20 of the 30 community colleges in the State University of New York system have established day-care centers in the last 10 years.

Dr. Birkholz said that five years ago, the average age of community college students was 23½. Now, he said, it is 29.

More Diversified Enrollment

In addition, the colleges have attracted an increasing number of students who are members of minority groups and high school dropouts through efforts that have included the introduction of bilingual and remedial courses. As a result, school administrators said, student populations should become more diversified in the next five years.

Course offerings have expanded as well. Suffolk County Community College, whose main campus is in Selden, L.I., has hired an administrator to determine the needs of local businesses and industries so courses may be tailored accordingly, the school's president, Robert Kreiling, said. It also sends teachers to offices to teach word processing, he said.

Dutchess County Community College in Poughkeepsie is considering starting a course in more traditional printing methods because a local business expressed a need for people with such training.

According to a report by the New York Board of Regents, full-time enrollment at the community colleges in the State University of New York system dropped 4.9 percent last fall, while part-time enrollment dropped 3 percent. Total enrollment at those schools dropped from 95,929 to 91,202, the report said.

9.2 Percent Drop in Jersey

In New Jersey, full-time enrollment in community colleges dropped 9.2 percent and part-time enrollment dropped 4.3 percent, according to a report by the state's Board of Higher Education.

In Connecticut, full-time enrollment declined 9.9 percent and part-time enrollment seven-tenths of 1 percent, according to the Connecticut Board of Higher Education.

Nationwide, half of the community colleges experienced enrollment declines of 5 percent or more, according to a survey by the Association Council for Policy Analysis. The report also said that full-time freshman enrollment at community colleges dropped 3.1 percent, while part-time freshman enrollment rose 1.3 percent.

Officials pointed out that states in the Sun Belt, such as Arizona, were experiencing increases in enrollment, which they attributed to overall population growth.

Among the factors cited by officials to explain the declines is a "catch-up effect." As Jennifer Presley, director of research for Connecticut's Board of Higher Education, explained, "A lot of women who did not go to school in the 50's and 60's went in the 70's. It may be trailing off."

In addition, cutbacks in government loans for education, coupled with rising tuition costs, have contributed to the declines and may continue to do so, according to a report by the New York Board of Regents.

In 1984, the average cost of full-time tuition at a State University of New York school was $1,031 a year, up from $794 in 1980.

The report said the migration of minorities and other college-age students to urban centers has caused the seven community colleges in the City University of New York system to experience less of a decline than schools in rural areas. City University schools experienced a 3.6 percent decrease in part time enrollment last fall, while full-time enrollment rose 6.5 percent, the report said.

A New Recruiting Effort

Nonetheless, Manhattan Borough Community College — whose director of admissions reported a stable enrollment — is conducting a more aggressive recruitment campaign than in past years, officials said. The school writes to every company with offices in the World Trade Center to tell them about courses offered at the nearby campus that might enhance the skills of their employees, officials said.

School administrators and education officials agree that these efforts have enabled the colleges to draw on features that made them popular to begin with: the ability to offer practical training on a flexible schedule to those who might not otherwise attend college.

"This forced us to do what we should have done a long time ago," said Mr. Kreiling of Suffolk County Community College, "which was to search for ways we could extend ourselves. I think it's healthy for us and our community."

FALL ENROLLMENT BRIEF

AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES

Fall Enrollment Survey Shows Community College Numbers Are Stable

An enrollment survey conducted by the Association Council for Policy Analysis and Research (ACPAR) shows that fulltime enrollments in public community, technical, and junior colleges increased this fall by 1.2 percent over fall enrollments a year ago. Total headcount in the colleges fell by 1.1 percent. The overall decline was caused in large measure by a 2.5 percent reduction in parttime students. It was moderated by a strong showing in enrollments of fulltime students.

The chart below presents the record of all institutions in the survey.

Changes in Fall Enrollment, 1983 to 1984, by Attendance Status

	Total Headcount	Fulltime	Parttime	FTE
All Institutions	-0.1%	+0.5%	-0.9%	+0.3%
Public	+0.3%	+1.2%	-0.8%	+0.8%
Four-Year	+1.5%	+1.2%	+2.1	+1.4%
Two-Year	-1.1%	+1.2%	-2.5%	-0.1%
Independent	-0.9%	-0.7%	-1.3%	-0.8%
Proprietary	-6.1%	-6.7%	-4.3%	-6.4%

All postsecondary institutions covered by the survey showed FTE losses in the first-time freshmen category. First-time freshmen FTE in public two-year colleges fell by 0.7 percent.

According to survey results, there was a great deal of enrollment shifting in the institutions. For example, 55 percent of all institutions reported an increase or decrease of 5 percent or more in fulltime enrollments and 69.8 reported an increase or decrease of 5 percent or more in parttime enrollments. For comparison, 68.2 percent of the public community colleges showed 5 percent or more shifts in fulltime enrollments, with 50.6 percent reporting declines; 62.6 percent of the public two-year colleges showed shifts of 5 percent or more in parttime enrollments, with 32.7 percent reporting increases.

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The analysis of regional variances for first-time freshmen enrollments indicated that the Southwest and Mountain states had substantial increases of students in this category. The Southeast and Great Lakes regions showed the greatest decline. The chart below presents the entire record of this analysis.

Enrollment Changes of First-Time Freshmen, 1983 to 1984, by Region

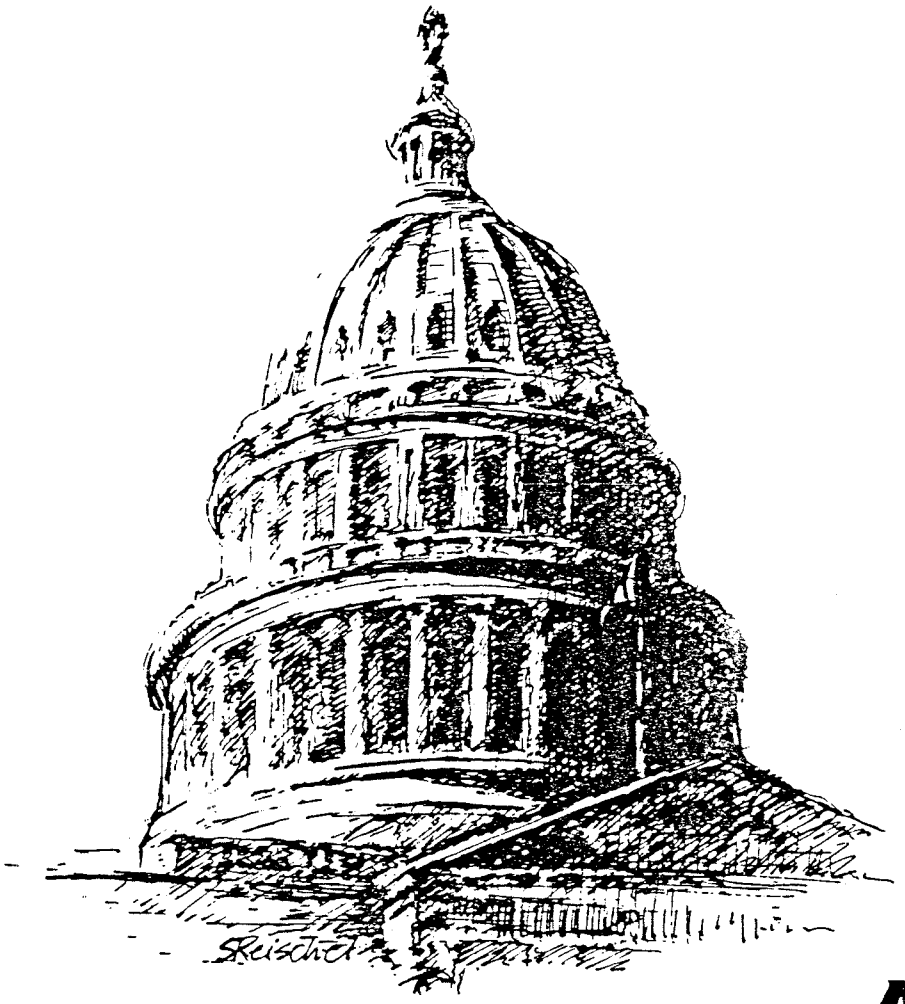
	All First-time	Fulltime First-time	Parttime First-time	FTF
New England	-7.9%	-2.9%	-22.5%	-4.9%
Mideast	+3.21	+1.2	+9.8	+2.0
Great Lakes	-11.9	-6.7	-21.7	-8.9
Plains	+0.5	-2.0	+9.5	-1.0
Southeast	-13.3	-12.6	-15.8	-12.9
Southwest	+28.1	+12.8	+58.1	+19.4
Rocky Mountains	+17.64	+9.8	+40.0	+13.0
Far West	+2.9	+8.0	-2.4	+5.5

AACJC will release its full report on fall enrollments this spring after the AACJC Directory returns have been analyzed.

ACPAR is a consortium of higher education associations, composed essentially of associations housed at the National Center for Higher Education. The charts in this brief were taken from "Fall 1984 Enrollment in Postsecondary Education," an ACPAR report.

Prepared by Jim Mahoney of the AACJC Data Office.

Supplement to AACJC Letter No. 130, February 19, 1985.



A HIGHER EDUCATION AGENDA for the 99TH CONGRESS

AMERICAN COUNCIL ON EDUCATION 1985

This pamphlet identifies issues on the agenda of the 99th Congress that have important implications for the nation's colleges and universities. It was prepared by the American Council on Education with the help of its Commission on Governmental Relations and the government relations staffs of the other national education associations. The material may be quoted or reproduced in the interest of education. Copies are available without charge from the Division of Governmental Relations, American Council on Education, One Dupont Circle, Washington, DC 20036.

A Higher Education Agenda for the 99th Congress

MEMO TO: Members of the 99th Congress

FROM: American Council on Education

January 1985

SUBJECT: Legislative Concerns of the Higher Education Community

As the Congress addresses priority legislation to reduce the deficit, stimulate economic growth, and strengthen the national defense, we urge you to bear in mind how closely these fundamental objectives are linked to the capacities of America's colleges and universities.

The federal government has fostered these capacities since 1862, when the Morrill Act helped the states establish colleges for the improvement of agriculture and the mechanic arts. In more recent decades federal support has contributed importantly to the development of higher education, spurring major advances in science and medicine, fostering scholarship in many other academic fields, and opening opportunities to unprecedented numbers of citizens.

As a result of this mutually beneficial relationship, institutions of higher learning play an essential role in developing the human capital the nation requires for an increasingly complex and technological society. They are called upon to meet the education and training needs of a diverse population, transmit cultural values, enlarge citizen understanding of the global society and the problems of an interdependent world, and advance the frontiers of knowledge and research and their practical application.

Therefore, legislative proposals to meet national goals should be drafted with sensitivity for their impact on the colleges and universities. In addition, congressional decisions on hundreds of executive branch programs and regulatory activities should be made with due consideration of their effect on the ability of these institutions to carry out their missions in the national interest.

The American Council on Education, as the major coordinating body for higher education, is responsible for representing the concerns of its constituency to the Congress. This constituency is large and diverse: a $96 billion enterprise accounting for 2.7 percent of the Gross National Product, employing 800,000 instructional and research staff and one million administrative and support personnel in some 3,300 large, small, public, independent, two-year, four-year, and graduate institutions, enrolling over 12 million students and serving millions more citizens in public service programs.

For all these institutions the federal government is an important source of support, even though public colleges and universities receive half of their revenues from state and local funds and independent institutions obtain over half of their resources from tuition and private contributions. Federal support for higher education approximated $22 billion in FY 85, with over $15 billion going to student assistance ($14 billion in grants and loan volume from Department of Education programs, $500 million from the Department of Health and Human Services, and $1 billion in veterans' education benefits); $6 billion for research and development supported by a variety of federal agencies; and $400 million for categorical programs of the Department of Education.

In cooperation with other associations representing the various sectors of the community, ACE seeks to encourage national policies that foster higher education's contributions to society and sustain the freedom and diversity that have historically nourished America's colleges and universities. The community's priorities for the 99th Congress can be summarized as follows:

- *Assuring that federal student assistance programs achieve the fullest development of the nation's human resources.*
- *Strengthening the research enterprise for scientific and technological advancement.*
- *Fostering charitable giving, research and development, and savings for educational purposes through appropriate tax incentives.*
- *Renovating higher education's decaying physical plant, including laboratory instrumentation, technology, and facilities as part of the effort to rebuild the nation's infrastructure.*
- *Supporting categorical programs which strengthen educational quality and address important national and international purposes.*
- *Establishing regulatory mechanisms which provide accountability without unnecessary bureaucratic control and which minimize diversion from the central task of education.*

Beyond these priorities, higher education's legislative concerns range across the full spectrum of national policy issues. Following is a selective inventory of these concerns, listed by congressional committees of jurisdiction:

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SENATE APPROPRIATIONS COMMITTEE
HOUSE APPROPRIATIONS COMMITTEE

In a time of record deficits, no federal program should escape scrutiny. Within this context, the higher education community seeks realistic funding of those programs which contribute to national productivity and strength.

As rising costs erode educational quality and strain the physical facilities of college classrooms and laboratories, these costs should be taken into account in determining appropriations. To maintain funding at existing levels is to reduce the operating effectiveness of the programs in many cases. Reductions may be justified when programs have outlived their usefulness, but should be viewed as trade-offs for increases in higher priority programs.

Student Aid

Over the last two decades a bipartisan consensus has developed on the goal of making postsecondary opportunities available to all citizens without restrictions based on income, race, sex, or geographic location. There is no higher priority for the higher education community than making continued progress toward this goal through funding of the student aid programs contained in the Higher Education Act.

The last Congress provided significant increases for student aid in FY 84 and 85. In constant dollars, however, the amount appropriated for the grant and work programs is still less than was available in FY 80. ACE will continue to seek increases to assure postsecondary opportunities for all qualified students.

Pell Grants. The Pell Grant program is the foundation of federal financial need-based assistance; it provides grants for over 2.5 million low- and middle-income students which they can use to attend the postsecondary institution of their choice. The maximum award goes only to the lowest income students, and awards are reduced as family income increases. The program should be funded at the full payment schedule authorized to assure that students receive the awards for which they are eligible and to protect the value of the awards against inflation.

Campus-Based Aid. Additional grant, work, and loan assistance is provided through the Supplemental Educational Opportunity Grant, College Work-Study, and National Direct Student Loan programs, which enable institutions to provide self-help and grant assistance to needy students, especially those attending higher-priced institutions and those for whom adequate state grant support is not available. In addition, the State Student Incentive Grant program encourages increased funding of state grant aid by providing 50/50 federal/state matching grants. Expanded grant and self-help opportunities are needed to keep pace with increases in college costs if needy students are to continue to be able to attend the institutions of their choice.

Guaranteed Student Loan Program. This essential program provides a federal guarantee and interest subsidy for private-sector loans to approximately 3 million undergraduate and graduate students and parents per year. Over $7 billion in new loans are guaranteed each year. The community will strongly oppose efforts to eliminate the in-school interest subsidy—essential for lender participation in the

program—or to deny eligibility to graduate students, which were rejected by the last Congress.

Special Services for the Disadvantaged. These programs, known as the TRIO programs, provide information, counseling, and tutorial services for individuals from disadvantaged backgrounds, to encourage them to attend a postsecondary institution, and give them needed academic assistance to complete their education. Current funding levels should be increased to provide these services to a larger percentage of eligible students.

Scientific Research

The health of U.S. basic research in science and engineering depends critically upon a strong partnership between universities and government. Progress made in the last Congress in restoring the nation's research and training capabilities must be vigorously pursued. Needed is a strategy to promote world leadership in advanced technology, to be achieved by substantial long-range investments as a part of a major rededication to education, research, and development.

In devising such a strategy, the National Science Foundation and the National Institutes of Health serve as key instruments of the government/academic partnership in the physical and life sciences and engineering. Congress should also provide reasonable increases for important research programs in other federal agencies in fields such as aerospace, agriculture, defense, education, energy, the environment, humanities, and urban problems.

The Administration and the Congress have sought to address the special needs of promising young scientists through the Presidential Young Investigators Program and through increasing the stipend for and number of NSF graduate and minority fellowships. ACE urges continued expansion of these initiatives and continued growth in the number of colleges served by the program of research improvement in minority institutions.

In recent years constraints on research funding have resulted in proposals to cut reimbursement for the indirect costs of research. The academic community maintains that such costs are essential to the conduct of research. Arbitrary restrictions on the reimbursement of such costs would not only unilaterally abrogate the university/government research agreement set forth in Office of Management and Budget Circular A-21, but also exacerbate the serious inadequacies of university-based scientific equipment and facilities.

Science and Engineering Education. Responding to congressional directives, NSF has begun to rebuild its science and engineering education programs. This effort is an urgent matter of national proportions. Although college science education has served the science major well, colleges have generally failed to provide citizens and future civic leaders with the understanding of science and technology that they need to function effectively. Besides the science instrumentation program, NSF should receive funding for projects directed explicitly to the improvement of undergraduate education in science for nonspecialists. These might include special faculty development programs and efforts to plan and test new courses for nonmajors.

Research Equipment and Facilities. The erosion of support for research equipment, instrumentation, and facilities on college and university campuses has jeopardized the productivity of federally sponsored research programs, weakened the training of undergraduate and advanced students, subverted academic research as talented researchers move to state-of-the-art laboratories in the private sector, and threatened to place American science and engineering at a competitive disadvantage internationally.

In the last Congress, a positive approach to the research instrumentation problem developed with the bipartisan sponsorship of the University Research Capacity Restoration Act, which sought to provide funding for these purposes through carefully targetted amendments in authorization and appropriation bills for six federal agencies that support basic research. This approach should be continued, with eligibility opened to all institutions on a competitive basis and broadened to include neglected research facilities at the undergraduate level.

The last Congress also witnessed an increasing tendency to earmark appropriations for specific facilities projects in designated institutions. This trend is understandable, given the critical need for such facilities faced by all higher education institutions, but it bypasses the long-established practice of open competition for research funding and merit evaluation as the basis for award of funds. We urge Congress to uphold this competitive process as the means of allocating national

investments for academic science and scientific facilities in ways that promote healthy competition among researchers and their institutions.

Health Personnel. Federal policy for training of health care personnel is based on a clear national interest, and the government has developed an array of programs in health science education. Yet federal support has been eroding, and the ability of institutions to plan training programs has been seriously reduced. As increasing demands are placed on the nation's health care delivery system by an aging population, steps must be taken to ensure an adequate supply of future health care personnel. The current oversupply in some areas masks critical shortages in other health professions which require increased support. In addition, the federal government should insure that access to certain health care professions is not restricted to the very wealthy, and that doctors in particular are not precluded from careers in teaching and research by debts from their professional education.

Graduate Education. Graduate education, scholarship, and research comprise the foundation on which the American system of higher education rests, yet this foundation is approaching a state of crisis. Insufficient talent is being developed to meet the requirements of the 1990's for the teaching and scholarly professions. There is an increasing need to recruit able students to fill current and anticipated faculty vacancies in many departments. In engineering and physical and computer sciences, too many students opt to enter lucrative careers in the private sector upon completion of a baccalaureate degree. Particularly acute is the lack of sufficient numbers of minority students in doctoral programs to ease the serious shortage of minority faculty on the nation's campuses. ACE urges Congress to strengthen the structure of graduate education by increasing fellowship support for minorities, women, and other groups traditionally underrepresented, and for highly talented students in the arts, humanities, and social sciences, as well as in scientific and engineering disciplines in short supply.

Categorical Support

As Congress addresses the need to strengthen the quality of the U.S. education system, the focus will shift from elementary and secondary to higher education. For colleges and universities, federal support for a variety of categorical programs is an essential means of maintaining a high-quality learning environment.

Renovation of Facilities. Congress last year provided a modest appropriation to begin addressing the enormous problem of renovating academic facilities. Much more help is needed to counteract a decade of deferred maintenance, to begin the costly process of asbestos removal, to conform with federal health, safety, energy, and hazardous waste disposal standards, to remove architectural barriers for the handicapped, and to upgrade research and teaching facilities.

Developing Institutions. The historically black institutions, colleges primarily serving disadvantaged students, and other institutions struggling to provide high-quality education make essential contributions to the nation's educational resources. They need continued special assistance to strengthen their contributions.

International Education/Foreign Language Studies. Since 1958, federal support has fostered a diverse range of intensive regional and country studies, graduate and undergraduate language programs, elementary and secondary education outreach, and international business initiatives which represent a valuable national resource. However, this resource is showing visible signs of depletion. The current generation of specialists will soon need replacement, and qualified candidates are difficult to attract due to the extraordinary costs of the typical seven-year Ph.D. program requiring extended research abroad. State and institutional resources have been declining, and federal support (which has never supplied more than a fraction of the actual expenses of maintaining language and area studies programs) has dropped by 65 percent in real terms since FY 69. In recent years the Administration has sought to eliminate funding. A renewed national commitment is needed to maintain this resource, with sufficient funding to increase support for existing programs, serve greater numbers of students and institutions, strengthen graduate training and undergraduate resources, engage more fully the diversity of higher education, and serve the needs of American business.

Humanities. Great works, important bodies of knowledge, and powerful methods of inquiry constitute the core of

the humanities and sustain the intellectual, moral, and political traditions of civilization. The study of the humanities is the very heart of quality education and the essence of the most lasting values a student derives from higher education. Yet this fundamental set of disciplines has been de-emphasized in recent years in favor of so-called practical training and technological skills. The modest annual appropriation for the National Endowment for the Humanities has not kept pace with inflation, and should be increased in keeping with its importance in undergirding humanities programs and scholarly inquiry in U.S. colleges and universities.

Academic Libraries. College libraries, the backbone of higher education, face increasing difficulty in managing and preserving their collections and sustaining vital services. Large and small academic libraries have inadequate resources to support changing curricula, to keep holdings current in rapidly changing fields, to implement innovative resource-sharing programs, to improve training in library and information science, to maintain special collections that are valuable national resources, and to address serious deterioration in the condition of collections. Federal support for college libraries, eliminated in FY 84, should be restored and research library support should be increased.

The Library of Congress (serving as the national library), the National Agricultural Library, the National Library of Medicine (including the Medical Library Assistance Act grant programs), and the National Archives and Records Service have national responsibilities for collecting, organizing, preserving, and servicing research materials, and are key links in a nationwide network of resources necessary for scholarship and research. The National Archives concentrates on U.S. government records—primary source materials for scholars—and includes the grant programs of the National Historical Publications and Records Commission. These agencies merit strong support.

Educational Exchange. Educational and cultural exchanges are among the most valuable tools the nation possesses for advancing public diplomacy and long-range international understanding. The most widely known, the Fulbright program, has for nearly four decades been building American cross-cultural skills and insights that come only from direct contact with other peoples and giving future foreign leaders reciprocal opportunities for exposure to American values and institutions. From 1965 until 1982, however, federal support for these programs declined 40 percent in constant dollars while Soviet bloc spending for comparable programs increased dramatically. The last Congress embarked on a course designed to reinvigorate the Fulbright and other exchange programs. Appropriations were increased and added emphasis was given to the development of programs with less developed countries—notably those nations in the Central America/Caribbean Basin Region. ACE strongly supports the continued revitalization and rebuilding of educational and cultural exchanges.

Other Categorical Programs. The Fund for the Improvement of Postsecondary Education is an invaluable stimulus for constructive change in higher education through its support of model projects having national significance for replication. The National Institute of Education should be supported in its efforts to place more emphasis through its labs and centers on postsecondary problems of management and finance, and on ways to improve teaching and learning. The National Center for Educational Statistics collects essential baseline data on the condition of postsecondary education and should be given adequate support to make the data available in a timely manner. Cooperative education programs combining study and related work experience have proved successful in improving student achievement and retention. The Women's Educational Equity Act provides funds for higher education programs designed to enhance career opportunities for women. Each of these programs deserves continued support and modest funding increases. The Urban Grant Program authorized in 1980 but not yet implemented could play a significant role in economic revitalization by utilizing postsecondary institutions as sources of applied research, specialized training, and services in dealing with the problems of their communities.

Postal Subsidies

Colleges and universities are the second largest users of first-class mail and also use second-, third-, and fourth-class mail extensively. ACE therefore supports realistic funding of postal subsidies based on the public's interest in the educational value of each class of service.

SENATE ARMED SERVICES COMMITTEE
HOUSE ARMED SERVICES COMMITTEE

National Service

In the continuing debate over how the nation sustains adequate military strength, there is increasing interest in the concept of national service as an option to upgrading the All-Volunteer Force or reviving the draft. The higher education community recognizes values inherent in increasing opportunities for youth to bridge the worlds of education, service, and work. However, questions as to appropriate ways to expand existing voluntary service programs remain unresolved. The outcome of this national policy debate may have important implications for the future of higher education. Therefore ACE supports legislation to establish a national commission to study the desirability, feasibility, costs, and broader social effects of national service. Such legislation was rejected in the last Congress, but the need remains.

Basic Research in the Department of Defense

National security more than ever demands a wide array of scientific, engineering, and other professional capacities, such as language skills and knowledge of other countries. It also requires an educated populace and a productive economy. In important ways all of these draw on resources within the colleges and universities. Initiatives designed to strengthen the responsiveness of universities to U.S. national security requirements have been neglected and are urgently needed. Congress should increase its support of Department of Defense basic research, graduate fellowships, education technology transfer programs, and research facilities and instrumentation programs at higher education institutions.

Export Controls

Over the past year, the Administration has moved to impose stricter controls on the outflow of U.S. technology and scientific research results. National security is critically dependent on America's technological edge, and the higher education community has worked with the government to achieve a mutually acceptable balance between the necessity for unencumbered research and the protection of sensitive research findings. Such a balance must recognize that American scientific and technological achievements depend on an open flow of information as critically as does the singular quality of American educational institutions. Congress should resist further restrictions on research and scientific communication as it moves to consider the Export Administration Act amendments which failed to pass in 1984.

SENATE BUDGET COMMITTEE
HOUSE BUDGET COMMITTEE

In the development of the annual Budget Resolutions setting spending ceilings for all federal programs, education should be considered as an important element in national economic revitalization and in the advancement of long-range economic and social goals, not simply as a controllable element of the budget. In this light, realistic spending targets should permit necessary growth of higher education programs in priority areas to keep pace with rising costs and to ensure excellence in postsecondary educational offerings.

The inordinate amount of time spent on Budget Resolutions in the last Congress argues for a review of the cumbersome budget process. Some changes may be desirable, but the proposal for a two-year appropriations cycle should be examined carefully as potentially disruptive for program planning in a complex and changing world.

SENATE COMMERCE, SCIENCE, AND TRANSPORTATION COMMITTEE
HOUSE ENERGY AND COMMERCE COMMITTEE

Telecommunications

The development of new informational technologies and the opportunities for educational institutions to utilize them has placed additional responsibilities on Congress. Telephone deregulation, support for educational programming and facilities, and cable regulation have a significant impact on virtually all colleges, which are concerned with video, voice, and data transmission as means to reach under-served populations and to expand programming. As Congress develops legislation governing emerging communications technologies, it should be sensitive to the interests of the higher education community.

SENATE COMMERCE, SCIENCE, AND TRANSPORTATION COMMITTEE
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
SENATE LABOR AND HUMAN RESOURCES COMMITTEE
HOUSE SCIENCE AND TECHNOLOGY COMMITTEE

These committees share the important task of reauthoriz-

ing the science programs of four key mission agencies: the National Science Foundation, the National Aeronautics and Space Administration, the Department of Energy, and the National Oceanic and Atmospheric Administration. Higher education's priorities for these four agencies include:

(1) Strengthening the basic research and science and engineering education programs of the National Science Foundation, including establishment of a role for NSF in upgrading instructional and research facilities with modern instrumentation and equipment (with continuing assessment of the condition and future needs of such facilities), revision of science and engineering education programs to support undergraduate science initiatives, continued growth of graduate fellowships to attract able students into the science and engineering professions, continuation of the Presidential Young Investigators program, support for supercomputer facilities on campuses to facilitate academic research opportunities, and re-assertion of the importance of behavioral and social science research;

(2) Strengthening NASA's university-based space research programs by increasing support for basic research, graduate fellowships, and research facilities, instrumentation, and equipment;

(3) Sustaining the national commitment to the energy sciences in DOE and strengthening the vitality of university participation in these programs through graduate fellowships and support for research facilities and instrumentation; and

(4) Reinforcing the universities' involvement with the National Oceanic and Atmospheric Administration and the Sea Grant Program, especially in matters pertaining to ocean minerals and energy, atmospheric sciences, and overall university/industry relations.

SENATE COMMERCE, SCIENCE AND TRANSPORTATION COMMITTEE
SENATE LABOR AND HUMAN RESOURCES COMMITTEE
HOUSE EDUCATION AND LABOR COMMITTEE
HOUSE SCIENCE AND TECHNOLOGY COMMITTEE

Mathematics, Science, and Foreign Languages

The mathematics and science legislation passed by the last Congress expires in FY 85. It was conceived as a limited vehicle designed to take a "first step" in reversing documented failings of American students in mathematics, science skills, and foreign languages and to strengthen teacher training and retraining. Only one of the law's four titles was funded, at one quarter of its authorized amount, and for only one year. Clearly, this first step will not begin to solve the problems. Systematic support for these fields should be authorized for all levels of the educational system.

SENATE COMMERCE, SCIENCE, AND TRANSPORTATION COMMITTEE
SENATE JUDICIARY COMMITTEE
HOUSE JUDICIARY COMMITTEE

Patent Rights of Employees

The far-flung research pursued on campus rarely seeks to generate inventions as a primary objective. Nevertheless, academic research is an essential source of the innovations necessary for economic growth and increased productivity. ACE is therefore vitally interested in every aspect of the nation's patent law. In particular, proposed legislation to determine the ownership of employment-related inventions and the compensation of employed inventors could impose adverse administrative requirements on colleges and universities. Such inventors are already protected adequately under the Patent and Trademark Amendments of 1980.

SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
HOUSE ENERGY AND COMMERCE COMMITTEE

The higher education community is concerned that many of the proposed changes to the Natural Gas Policy Act of 1978 could have drastic economic consequences for the approximately 1,800 colleges and universities that are reliant on natural gas as a primary fuel. We recognize the need to stimulate exploration for natural gas so that shortages such as those of the winter of 1976–77 do not recur. At the same time, adequate safeguards must be enacted to ensure that consumers are protected from price increases of the magnitude experienced during the winter of 1982–83.

The recent increases in natural gas prices during a period of surplus supplies and declining oil prices mandate a legislative solution to a rapidly deteriorating and potentially catastrophic situation. It is the position of the higher education community that old gas discovered before 1977 should re-

main controlled until exhausted. With regard to new gas, the existing NGPA schedule seems to provide a middle road between the alternatives of accelerated decontrol (which could cause prices to increase substantially in the near future) and an extended schedule for decontrol (which could cause long-run supply shortages).

SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE
HOUSE ENERGY AND COMMERCE COMMITTEE
HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE

Infrastructure

For over a decade higher education officials have brought to the attention of Congress the serious problems facing institutions whose physical plants are aging and deteriorating. These assets are eroding as colleges have been forced to defer renovations to meet rising costs. The growing crisis of academic facilities should be addressed in any legislation designed to renew the nation's infrastructure.

In addition, a large-scale effort is needed to test structures for possible health hazards due to asbestos and to refurbish buildings which are discovered to pose a threat. ACE urges the Congress to provide needed federal financial and technical assistance in dealing with this national problem.

Hazardous Waste

Colleges and universities share a longstanding commitment to protecting the environment, especially in their role as teachers of the nation's scientists and engineers. ACE therefore strongly supports the policies and procedures embodied in the Resource Conservation and Recovery Act (RCRA), which mandates strict controls on the disposal of hazardous waste, especially that produced by large industrial plants. These massive, relatively uniform waste streams are estimated to comprise 90 percent of the hazardous waste generated in this country.

Recently enacted amendments exempt those institutions generating less than 100 kilograms of waste per month from the most burdensome RCRA requirements. ACE recommends retaining this classification of "small generators" and the current regulations permitting disposal of certain laboratory wastes safely in landfills until the results of the mandated study of campus waste generation and disposal has been completed and analyzed. To impose expensive packaging, labeling, and recordkeeping requirements on colleges and universities which generate waste in such small amounts and variable qualities would burden institutions financially and distract Executive branch officials from enforcing essential safeguards against large-scale abuses.

The higher education community also strongly endorses the reauthorization of the "Superfund" program to facilitate the cleanup of the nation's hazardous waste sites. However, ACE is concerned that such legislation could create new legal remedies and expand civil liabilities, thereby significantly increasing legal fees and other transaction costs attendant to environmental disputes but doing little to encourage safe and technologically advanced management practices for hazardous substance handling, treatment, and disposal. Such remedies could, in particular, expose small generators to inequitable and disproportionate liability.

SENATE FINANCE COMMITTEE
HOUSE WAYS AND MEANS COMMITTEE

Almost every activity undertaken by colleges and universities is affected by the tax laws. Thus, as proposals to restructure the tax system are reviewed, we urge careful attention to the effects that changes in the tax code could have on the way higher education is financed.

Charitable Contributions

The single most important effect of general tax reform on institutions of higher education concerns the incentives which the tax code offers for private donations. Charitable giving is a major resource for all colleges and universities, particularly for small institutions without large endowments. Any significant decline in this source would curtail student choice, diminish the overall quality and diversity of postsecondary education, and increase the price of education. The charitable deduction is wholly justifiable as a matter of tax theory and is essential to the proper definition of taxable income. Rigorous economic studies have established that the existing tax provisions encouraging charitable giving are effective, highly efficient, and equitable.

Moreover, although the dependence of private colleges and universities on gifts is widely understood, it is less well known that in 1982–83 gifts to public four-year institutions constituted 31 percent of total giving to higher education and

grew from the previous year at a rate nearly three times that of giving to private institutions. Increasingly, then, the health of institutions of higher learning—public as well as independent—depends on their ability to attract private donations. Any proposed change in the tax laws should therefore be carefully analyzed to determine its effect on charitable contributions.

Tax Reform. Proposals to enact general tax reform have gained increasing congressional and public interest. Colleges and universities, along with the entire nonprofit community, have several concerns relating to these proposals. A simplified tax system with no charitable deduction could remove all tax incentives for charitable giving.

While taxes may not be the dominant influence on individual decisions to give, they are known to be a significant factor. Economic studies consistently show that charitable donations vary directly with the marginal tax rate and inversely with the cost of giving. A 10 percent rise in the net cost can be expected to cause at least a 10 percent drop in charitable contributions. This responsiveness increases somewhat with income: donors in the upper income groups most likely to contribute to colleges and universities are even more sensitive to changes in the net cost of giving than are others.

We do not believe that a final judgment about the overall desirability of a flat rate tax, a modified flat rate tax, a value-added tax, or any other kind of general tax reform should be governed solely by its effect on giving to higher education. At the same time, this important side effect needs to be recognized explicitly, and thought should be given to how incentives for giving are to be maintained. For example, a flat rate tax with a charitable contribution deduction would be more advantageous than one without, but in any case would still decrease support for charitable institutions, which in 1982–83 amounted to $5.1 billion for higher education.

Gifts of Property. Colleges and universities are substantially dependent on gifts of appreciated property. It has been estimated that over half of all gifts of over $5,000 to higher education are in the form of securities, real estate, or other property. The community is therefore opposed to any legislation which would allow a charitable contribution deduction for only the lesser of the current market value or the indexed basis of appreciated property.

Tax Incentives to Stimulate Research and Development. The capacity of institutions of higher education to support industrial innovation is seriously underused, and investment in basic engineering research lags. In many fields technological preeminence is being lost to foreign competition. In the national interest, more effective application of research resources is needed to spur innovation. Legislation to provide a reasonable tax incentive to business for conducting basic research at colleges and universities would encourage closer cooperation between industry and higher education. However, such legislation should not reduce the current deduction for business contributions to nonprofit organizations.

Donation of Equipment. Another area in which industry/education cooperation can benefit both, and society as a whole, involves donating, sharing, and rental of equipment. Colleges and universities do not have the resources to maintain state-of-the-art equipment in all fields, and the use of outdated equipment in the classroom and in research retards future productivity. Current tax deductions for donating technology for research purposes should be augmented to provide a full fair market value deduction to manufacturers who donate state-of-the-art equipment to educational institutions. ACE also supports proposals to encourage the donation of service contracts for on-campus equipment and to promote the use of industry equipment by students for training.

Artist Tax Equity. Prior to enactment of the Tax Reform Act of 1969, an author or artist who donated literary, musical, or artistic compositions or papers to a library or museum could take a tax deduction equal to the full fair market value of the items at the time of the contribution. That Act limited the creator donor's deduction to the cost of materials used to produce the work. This has resulted in a precipitous decline in charitable contributions by living artists and authors to museums and libraries. For scholars and researchers, this has meant that the manuscripts, notebooks, and journals of many important contemporary figures are not, and may never be, available for study. ACE believes it is necessary to rectify a problem that has severely hampered educational and cultural institutions in their efforts to preserve and provide public access to works documenting the nation's artistic and intellectual achievements. We favor legislation to restore the full fair market value deductibility for gifts by artists, authors, and composers of their own works.

Further Incentives for Charitable Giving. Legislation that enables taxpayers who do not itemize their deductions to take a charitable contribution deduction expires at the end of 1986. Congress should make permanent this important incentive to charitable giving. Congress should also explore the desirability of incentives to increase charitable giving. One proposal, for example, would provide that a dividend paid by a corporation to certain charities at the direction of a shareholder would be treated as a corporate charitable contribution and excluded from the shareholder's income.

Taxation of Institutions

Tax-Exempt Bonds. Tax-exempt bond financing has long been an important source of capital for colleges and universities to finance student loans, as well as construction and renovation of facilities, including teaching hospitals. Such use of capital generated by tax-exempt bonds has been within the traditional orbit of proper government-related activities and is extremely important to the higher education community. Last year, legislation sharply restricted the use of tax-exempt financing of student loans. ACE continues to support tax-exempt bond financing as an appropriate mechanism to provide loan capital to students and for educational facilities.

Taxation of Employees

Congress has begun to question the favorable tax treatment accorded to employee benefits. These benefit programs provide an essential private safety net buttressing and complementing public social insurance programs. In their absence government would have to spend many times more than what government and industry are now spending for this protection. Recent research also shows that benefits are going primarily to low- and middle-income workers and are not vehicles for the highly paid to avoid income taxes. Where discrimination does exist, it can and should be curbed under existing law, not by changing the tax laws to affect adversely the non-discriminatory and non-abusive employee benefit plans as well.

Allegations that the tax base is being seriously eroded by employee benefits miss the mark. Not all employee benefits are tax-exempt; most are taxed. Some such as vacation pay are taxed immediately. Others such as pensions are taxed when received during retirement. Life insurance, disability insurance, social security, and unemployment compensation are taxed also, but only when certain levels have been exceeded. Thus, while employee benefits average approximately 37 percent of payroll, tax-exempt benefits amount to less than 5 percent of wages and salaries.

Employee Educational Assistance. In 1984 Congress extended the Employee Educational Assistance Act through 1985. This provision encourages both employers and employees to participate in education and training programs and eliminates confusion and inequities in the law. We urge enactment of legislation which would make this provision permanent, thereby enhancing the ability of lower-compensated employees to seek job advancement and of employers to promote the training and technological development of their work force.

In addition, ACE urges the Congress to reject any proposals which threaten the tax-exempt status of scholarships and fellowships.

Cafeteria Plans. Congress enacted section 125 of the Internal Revenue Code to encourage more efficient and equitable utilization of the employee compensation dollar through the use of "cafeteria plans" which give employees more freedom in choosing the benefits best suited to their individual needs and help employers control their benefit costs and maximize the value of employee benefits. For colleges and universities, cost containment and efficient allocation of their limited resources is especially important, and cafeteria plans must be sufficiently flexible to allow employees a meaningful choice among alternative benefits. Congress should continue to facilitate rather than obstruct this employee freedom of choice.

Faculty Housing. The IRS has recently threatened the historical, educationally motivated practice by many colleges and universities of providing housing on or near their campuses to faculty and staff. While institutions traditionally charge rents to cover direct operating costs, the rates are usually below what might be obtained where the housing offered on the commercial market. The IRS has proposed to collect withholding tax on the difference between the rent charged and an artificial "fair market value." ACE supports legislation to avoid the spectre of retroactive liability and to amend the Internal Revenue Code to provide that housing for faculty and administrators on or close to campus does not constitute income.

Tax Credits for Postsecondary Tuition

There is in the higher education community little support for tuition tax credits, and opposition to the concept when posed as an alternative to need-based student aid. Tax credits cannot substitute for the existing system of grants, loans, and work-study programs that provides student assistance proportionate to need and costs incurred.

ACE believes that other legislative options, such as education savings plans, tax deferral for a portion of education expenses, and vouchers, should be thoroughly explored.

Medicare/Medicaid

The two largest federal health care programs were designed to assure high-quality medical services for the nation's elderly and indigent citizens. These programs have extraordinary significance for university-owned and affiliated hospitals, as well as for academic health centers. Teaching hospitals, usually related closely to biomedical research programs, are responsible for a disproportionately high percentage of tertiary medical care, the most complex and expensive medical cases. They are often tied into the "practice plan" of academic health centers that determines the appropriate incomes of medical school and health research center faculty. Any proposals for reducing costs of medicare/medicaid and revising reimbursement plans for hospitals and physicians should be carefully examined in terms of their impact on these hospitals and on the total health care system of the community. Changes in reimbursement begun by the Tax Equity and Fiscal Responsibility Act in 1982 are certain to affect university teaching hospitals' patient care, training, and research. As the prospective payment system is refined, care must be taken to ensure adequate reimbursement for the full range of services offered by tertiary care hospitals with major research and teaching components.

Senate Foreign Relations Committee
House Foreign Affairs Committee

Foreign Assistance

College and university specialists and researchers collaborate with their counterparts around the world in seeking solutions to problems which transcend national boundaries such as agriculture, health, energy, science and technology, education, and population growth. The international links forged through such efforts—the markets opened up, technologies transferred, and values imparted—benefit the nation's long-term economic and security interests.

In the last Congress support for agricultural development initiatives eroded somewhat in proportion to the total of available development assistance funds, while education funds increased markedly. ACE supports balanced increases for both of these vital areas. Support for the education of students from developing countries through participant training programs should be continued and expanded beyond Central America.

Educational and Cultural Exchange

Authorization for the United States Information Agency (USIA) expires at the end of FY 85. ACE believes that the focus of the reauthorization efforts for the agency's educational and cultural exchange programs should be to carry forward the charter for such programs within the agency, to assure realistic and continued systematic growth of exchanges through regular annual appropriations increases, and to preserve the integrity of the programs that is crucial to their vital contribution to the national interest.

Senate Governmental Affairs Committee
House Government Operations Committee

The Department of Education, established in June of 1980, is still under attack from some quarters, and further legislative efforts may be made to reorganize it or reduce its functions. Stability in the agency has been notably lacking due to frequent reorganizations in recent years, and any reorganization proposal should be weighed carefully against the potentially serious costs of further administrative disruptions that would result. The higher education community opposes such legislation as a means of reducing the federal commitment to equal educational opportunity and choice, which are essential elements of America's future strength and productivity.

Senate Judiciary Committee
House Judiciary Committee

Equal Opportunity

In the wake of the Supreme Court's 1984 decision in *Grove City College v. Bell*, ACE supports legislation to clarify the

application of Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and Title VI of the Civil Rights Act of 1964. Enactment of such legislation is necessary to ensure that educational rights are protected to the fullest extent and to signify re-dedication to the goals of existing civil rights laws. Failure to enact such legislation would encumber the enforcement of current law and disrupt educational administration by forcing federal officials to attempt to trace federal funds in all school activities. It should be made clear that any such legislation is neither intended to affect current exemptions for religiously-affiliated and single-sex institutions contained in the four current statutes, nor is it intended to affect the tax-exempt status of any institution of higher education.

Lack of coordination among civil rights enforcement agencies, poor training of investigators, and inconsistent policy interpretations at the federal and regional offices also continue to render the equal opportunity laws, orders, and regulations ineffective in serving the interests of institutions and of persons in the affected classes. ACE remains committed to the goals of equal opportunity and will continue to work to improve federal civil rights enforcement by urging clarity and consistency in policy statements, necessary coordination and consolidation of efforts, and effective management of the agencies. ACE will oppose any legislation that undermines this country's essential commitment to equal opportunity for all citizens without regard to race, sex, national origin, religion, or handicap.

Immigration Reform

Preference categories for immigration, criteria for labor certification, and conditions by which students legitimately may be permitted to remain in the United States have profound implications for colleges and universities. These implications should be considered carefully in any legislative proposals for immigration reform. ACE urges that no provisions be included that would hamper the competitive recruitment by colleges and universities of the most qualified faculty and researchers regardless of national origin.

Regulatory Reform

Reducing the regulatory burden on colleges and universities is of prime importance, and ACE continues to support deregulation initiatives as part of broader reforms that have been actively considered by the Congress for several years. Specifically, we support requiring executive and independent agencies to analyze the economic effects of major rules, particularly their impact on the nonprofit sector; allowing agencies to achieve desired benefits in flexible ways, through performance rather than design standards; and requiring agencies to demonstrate the source of their authority for rules under review by the courts.

Freedom of Information

ACE supports legislation to amend section 4(b) of the Freedom of Information Act. Principally, the community is concerned that original ideas contained in research grant applications and progress reports submitted by investigators could be disclosed under the Act, thus revealing the ingredients of a potentially patentable invention. Individuals submitting such information are currently without an enforceable right under the Act to prevent disclosure. Failure to recognize the proprietary information contained in research proposals could have a deleterious impact on the conduct of scientific research and the application of that research to the development of new products.

Computer Crime

ACE supports legislation that would make it a federal crime to use a computer for fraud or theft or to vandalize computer-stored information when operating in interstate commerce. The higher education community is increasingly dependent on computers both in terms of their use for research and for conducting its own business affairs. Current federal and state laws are inadequate to deal with the multiplicity of problems relating to computer theft and abuse. It is extraordinarily difficult to establish that a computer file is property protected under current statutes and that copying from such a file constitutes thievery.

Senate Labor and Human Resources Committee
House Energy and Commerce Committee

Biomedical Research

The veto of 1984 legislation reauthorizing the National Institutes of Health places a number of important issues before this Congress. We are concerned that further efforts

may be made to restrict the Department of Health and Human Services from supporting human fetal research or experimentation. Such a prohibition would disrupt important research leading to improved infant health and the detection and treatment of pregnancy and birth disorders. The current array of regulatory constraints and safeguards of human subject research is adequate, and further restrictions should not be imposed unless based on valid scientific concerns.

With regard to questions concerning the organization of NIH, Congress should be guided by the principles recommended in the recent report of the National Academy of Sciences' Institute of Medicine.

Reauthorization of Health Manpower Legislation

Prompt action is needed to reauthorize the current health manpower authorities, which expire September 30, 1985. In an environment of increasing health professions school costs, several health education assistance programs warrant continued support. The Exceptional Financial Need (EFN) scholarship program provides assistance to first-year health professions students from low-income backgrounds who otherwise might not have access to that education. The Health Professions Student Loan (HPSL) program provides health professions institutions with federal "seed" money for their students. Over the years, repayment of that original loan money allows schools to roll funds over to new students without substantial further investment by the federal government. Finally, we recommend a prudent continuation of the Health Education Assistance Loan (HEAL) program which has served as an effective fallback for health professions students who have depleted other financial aid resources. We urge opposition to efforts to reduce future authorization ceilings or to lower the cap on this program below its present level of $250 million.

Senate Labor and Human Resources Committee
House Education and Labor Committee

Reauthorization of the Higher Education Act

The Higher Education Act expires at the end of FY 85, subject to an automatic two-year extension. The reauthorization process will review the federal role in higher education and address vital concerns of the nation and the postsecondary community, including equality of access to postsecondary education at the undergraduate and graduate levels; the resources needed to sustain the quality of developing institutions, college and university libraries, and academic facilities; and the ability of institutions to respond to national needs for excellence in research, international education, and the education of teachers.

Student Aid

A principal objective will be to increase funding authorizations for grant and fellowship assistance and support services for needy students. Adequate grant and fellowship assistance is essential to ensure not only that talented and needy undergraduates and graduate students have the resources to attend postsecondary institutions appropriate to their academic needs and interests, but that they do not have to incur excessive debt to do so. Support services provided by the TRIO programs, including counseling and information and tutorial services, encourage students from low-income families, particularly those who would be "first-generation" college students, to seek postsecondary education and enable them to have a successful educational experience.

The Congress should consider the recommendations of the National Commission on Student Financial Assistance for improving the delivery of aid, enhancing the provision of information to current and prospective students and their families, monitoring the delivery process, administering the loan programs more efficiently, and gathering more detailed data on the federal programs and the students they serve.

Pell Grant Awards. In recent years, the value of the Pell award has been eroded by rising costs. The higher education community will recommend a major increase in benefits to enable the Pell Grant to function effectively as the foundation of the aid package for eligible students. Key issues on which ACE will try to develop recommendations that represent consensus in the higher education community are the amount of the maximum award, the percent-of-cost limit, and the formula for computing the student's cost of attendance. The family contribution schedule, which relates the size of the award to the student's family income, should be adjusted to assure that the largest award increases are targetted on the neediest students. Consideration should be given to special provisions to meet the needs of adult learners and less-than-half-time students.

Supplemental Educational Opportunity Grants. The SEOG program provides important assistance in enabling needy students to attend higher-priced institutions and in supplementing the other aid programs to help students with unusual expenses. Recommendations have been made to target SEOG funds more specifically on low-income students, and the equity of the statutory formula for distributing funds to institutions and states should be reviewed.

College Work-Study. There is strong congressional support for the College Work-Study program in its present form. Eligibility and benefits should be revised so that they will continue to be effective supplements to grant assistance. The equity of the state allocation formula for distributing funds should be reviewed.

National Direct Student Loans. This program continues to be an effective supplement to the Guaranteed Student Loan program, and we support its retention. Institutions use it to make awards to low-income students who have inadequate access to loan capital or who need small loans which banks are not willing to make. It may be desirable to increase loan limits to enable institutions to make larger loans to students at higher-priced institutions. As with the other campus-based programs, the equity of the state allocation formula should be reviewed.

State Student Incentive Grants. This program has been instrumental in establishing grant support for needy students in states which did not have such programs. Recommendations have been made to give the states more discretion regarding the types of student aid which they can match.

Guaranteed Student Loans. Reauthorization should explore the appropriate balance between grants and loans, and the growing burden of student debt. A major issue is whether to increase the annual and aggregate loan limits, and if so, to what new levels. Although there is great need for additional resources with which to finance increasing college tuitions, both the Congress and the community are concerned over the danger of excessive student debt. The rapidly increasing cost of the program due to current high interest rates also generates concern that funding of grant and work programs could be jeopardized.

The desire to eliminate the 5 percent origination fee imposed in 1982 must be weighed against the substantial increase in the cost of the program, as must recommendations to modify the $30,000 income limit above which students must qualify on the basis of need.

Auxiliary Loans to Assist Students. Consideration should be given to increasing current loan limits for graduate students, independent undergraduates, and parents of dependent undergraduate students. Incentives should be considered to increase the participation of lending institutions.

Graduate Education. In its 1982 report, "Signs of Trouble and Erosion," the National Commission on Student Financial Assistance identified ten priorities for federal action to improve the quality of graduate education and student access to these programs. The Commission recommendations should receive urgent attention as a basis for action to address a growing crisis in graduate education.

Merit Scholarships. The 98th Congress authorized two new programs of federal scholarships with eligibility based purely on academic merit. Such scholarships may play a valuable role in addressing expected shortages of teachers and professionals in other areas of national importance, and in rewarding academic excellence. However, merit scholarships must not divert or diminish long-established federal student aid programs based on need. Efforts to impose arbitrary federal standards of academic progress on need-based recipients should be strongly opposed as a dangerous intrusion on institutional responsibilities to establish and maintain academic standards.

Monitoring of Regulations. The Supreme Court's decision in *Chadha v. Immigration and Naturalization Service*, casting doubt on the validity of statutory provisions for congressional review of executive branch regulations, has weakened an important means of restraining agencies from regulatory excesses. Congress has considered a number of proposals for legislative review of regulations consistent with *Chadha*, and has enacted some of them. The reauthorization process should develop techniques to ensure that regulations for programs under the Higher Education Act are written to carry out, and not to amend, the law.

Categorical Programs

ACE strongly supports the continuation and expansion of the following Higher Education Act programs providing critical assistance to institutions in pursuing academic excel-

lence and addressing national priorities:

Adult Learners. The continuing education programs under Title I of the Higher Education Act have been unfunded since 1982. The authority should be revised to encourage adult learning as a major resource in solving the nation's economic and social problems. The recent report of the Commission on Higher Education and the Adult Learner proposes a new program of multi-year challenge grants to help qualified institutions defray the incremental costs of establishing adult learning programs and services, authority for the Fund for the Improvement of Postsecondary Education to sponsor experimentation and innovation in adult learning services and delivery systems and the dissemination of results, direct grants to needy individuals enrolled in adult learning programs, and federal support of state and national information and counseling services. Additional legislative steps advanced by the Commission include new tax credits, tuition vouchers for the unemployed, and modification of manpower programs.

Developing Institutions. Authorizations should be increased for this program which provides critical funds for the development and improvement of institutions with scarce resources and large proportions of needy students. The effectiveness of the current program should be reviewed to assess whether revision of eligibility criteria is necessary.

College and Research Library Assistance. The program providing grants to college libraries should be revised to include a formula for targetting funds on institutions with the greatest need and to authorize assistance to implement systems using the latest technologies for resource development and resource sharing. The programs for librarian education and library research and for assistance to research libraries should be reauthorized and expanded.

Cooperative Education. This program should be revised to provide incentives to institutions to apply cooperative education techniques to the widest possible spectrum of institutional programs and to open their cooperative education programs to all students.

Teacher Education. The current teacher education programs, unfunded for a number of years, should be replaced with a new authorization designed to attract and retain well-qualified individuals into the teaching profession. Emphasis should be placed both on preservice and professional development activities with encouragement of school, college, and university partnerships for program design and implementation.

International Education. The foreign language and international education and business programs authorized in the Higher Education Act comprise the total of federal support for such activities on campus. This legislation should be revised to re-establish a clear national commitment to strengthening the international and area studies research base, stimulating the attainment of foreign language acquisition and fluency, supporting the development and maintenance of expert skills through overseas experiences, strengthening the library resources which underpin such efforts, and broadening opportunities for students at all levels for exposure to foreign language and international studies.

Modernization and Improvement of Academic Facilities. Major changes should be made in this authority to begin to meet the enormous facilities needs of colleges and universities. The loan program currently authorized should be continued with minor changes and supplemented by a greatly revised grant program applicable to academic and research facilities, including libraries. Grants should be matched by institutional funds and top priority should be given to renovation projects, with federal assistance for new construction to be made available only when it is more cost-effective or where no other alternative exists. Funds should also be made available for the construction of facilities that will be used jointly by two or more higher education institutions.

Postsecondary Improvement. ACE recommends a simple extension of the authority for the Fund for the Improvement of Postsecondary Education in recognition of its important role with regard to testing worthwhile ideas and stimulating reform within the higher education community. Statutory language should be added to clarify FIPSE's responsibility to disseminate more widely the results of its successful projects.

Urban Grants. This program, authorized in 1980 but not yet implemented, should be reauthorized with minor amendments. It could provide urban institutions with resources to serve the cities in which they are located through research, specialized training, and services focusing on problems of priority importance to these cities.

Humanities

The National Foundation on the Arts and Humanities Act of 1965 will expire at the end of FY 85. In its 20 year history NEH has been enormously successful in pursuing its mandate to foster scholarly excellence and encourage public access to the humanities. ACE recommends continuation and expansion of NEH programs, particularly those aimed at enriching the teaching of humanities at the elementary and secondary level, providing fellowships for individual scholars, maintaining state humanities councils, preserving research materials, and providing matching grants to stimulate new support from the private sector.

Student Assistance and Draft Registration

The authorizing committees should closely examine the effect of new regulations implementing legislation passed by the last Congress requiring students to prove that they have complied with the draft registration law as a condition of eligibility for federal aid under Title IV of the Higher Education Act. The community is concerned that the regulations may result in serious delays in the processing of aid and possible inequities in denying aid to students who are unable to provide timely proof of compliance. Last year an effort was made to expand the scope of this requirement to include other programs of federal assistance. The high rate of compliance with the Military Selective Service Act should make clear that further extension would be unnecessary, unduly burdensome, and an unwarranted expense to administer.

Accommodation of Handicapped Students and Employees

In issuing rules implementing Section 504 of the Vocational Rehabilitation Act of 1973, the Department of Education's Office for Civil Rights failed to indicate that it expected the cost of auxiliary aids for handicapped college students to continue to be met by state and local rehabilitation agencies. The Rehabilitative Services Administration, which oversees such state and local agencies, has taken the position that the Act requires students to look first to colleges for payment for classroom aids. If assurance is not forthcoming that students will obtain necessary aids without imposing burdensome costs on colleges and universities, a legislative resolution of this issue may be necessary.

Proposals to amend Title VII of the Civil Rights Act of 1964 to include otherwise qualified handicapped individuals among those protected from employment discrimination are likely to be introduced in this session. ACE supports the substantive goal of such proposals: to ensure that all employers, not just federal contractors, provide equal opportunity in employment for all otherwise qualified handicapped individuals. Nevertheless, such legislation should be drafted carefully to avoid further unnecessary duplication of federal civil rights enforcement efforts.

Mandatory Retirement

Colleges and universities are threatened by legislation which would prohibit the termination of employment for reasons of age. Since most tenure agreements provide for employment until retirement, the end of mandatory retirement would allow tenured professors to remain in service indefinitely, thus radically altering institutional personnel policies.

Without a system of mandatory retirement, the number of job openings and opportunities for advancement of able young persons, already scarce for demographic reasons, would be much reduced. Graduate students, junior faculty and administrators, and women and minority groups are particularly dependent on a reasonable availability of faculty openings. Colleges and universities must have a steady infusion of new faculty members if they are to continue to be effective centers of teaching, research, and scholarship. Mechanisms now exist at many schools which allow them to continue to utilize the talents of faculty after they have passed age 70.

We believe that tenured faculty and administrators should be exempt for 15 years from legislation ending mandatory retirement due to age. Such an exemption would permit the retirement of a substantial number of faculty members and administrators, increase the number of openings available for younger faculty, and give institutions time to plan efficiently for future academic needs.

Labor-Management Relations

Legislation was introduced in the 98th Congress to overturn the Supreme Court's 1980 decision which held that faculty members at Yeshiva University were managerial employees, excluded from the coverage of the National Labor Relations Act by virtue of the authority they exercise in academic matters. ACE opposes a legislative determination that all faculty must be found to be nonmanagerial and nonsupervisory, even where they exercise final authority in such fundamental matters as curriculum, personnel, or budget. Institutions of higher education should have the same opportunity as other private employers to exclude supervisory or managerial employees from a prospective collective bargaining unit.

The unique nature of college and university faculties argues that the case-by-case process of determining whether a given faculty is comprised of supervisory or managerial employees should be given further opportunity to develop. If this process should fail to achieve the goals of the National Labor Relations Act, we pledge cooperation in developing an equitable and workable solution.

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Ira Michael Heyman, Chancellor,
University of California, Berkeley

Virginia L. Lester, President,
Mary Baldwin College

Frank H. T. Rhodes, President,
Cornell University

Bill F. Stewart, President,
Kirkwood Community College

Class of 1987

Roscoe C. Brown, Jr., President,
Bronx Community College,
City University of New York

William M. Fulkerson, Jr., President,
Adams State College

Janet D. Greenwood, President,
Longwood College

William J. Maxwell, President,
Jersey City State College

Patsy H. Sampson, President,
Stephens College

James J. Whalen, President,
Ithaca College

PRELIMINARY PROGRAM

87TH Conference
University of Wisconsin Waukesha
Waukesha, Wisconsin
May 24, 25, 1985

Presentors and topics

Jane Miller, "Daughters of Isis: Women in Chemistry"

Marion Baker, "The Classroom Climate for Women"

Peter Lykos, "Computer Impact on Chemistry Curricula"

Philip Hall, "Getting Started with Computers in Chemistry Instruction"

Kenneth Dowling, "Analysis and Application of the Yankwich Report"

George O'Hearn, "Educating the Unserved Majority"

W.T. Lippincott, "The Organization and Current Programs of the Institute of Chemical Education"

Bassam Shakhashiri, "Communicating Science: Is it Worth the Effort"

Gary Udovich, "Making Chemistry Relevant"

Richard Bayer, "How to Determine Options Available from Hazardous Waste Disposal"

Derek Davenport, "As Sparks Fly Upward: 200 Year of Manned Flight"

Richard Siebring, "A Historical Perspective on the Qualities of Eminence"

In addition there will be small group discussions centered around general, organic, and analytical chemistry.

There will be a wine and cheese social hour and a dinner on Friday Evening.

1984 - 85 ACADEMIC YEAR

The 86th CONFERENCE, Miami-Dade Community College, South Campus, Miami, FL 33176. In conjunction with the 189th ACS National Meeting
Program Chairman: Wendell Massey, FLorida Junior College North Campus, Jacksonville, FL 32218
Local Arrangements Chairman: Larry Bray, Miami-Dade South

MAY 24 - 25

The 87th CONFERENCE, University of Wisconsin, Waukesha, WI 53186
Program Chair: Leonard Grotz, University of Wisconsin, Waukesha, 1500 University Drive, Waukesha, WI 53186 (414) 544-8743
Local Arrangements Chair: L. Grotz and G. Udovich
University of Wisconsin, Waukesha, WI

OCTOBER 11 - 12

The 88th CONFERENCE, (joint with SE/SW ACS Regional meeting) State Technical Institute, 5983 Macon Cove, Memphs, IN 38134
Program Co-Chairs: Paula Balard, Jefferson State Junior College, Birmingham, AL
James Graham, J.C. Calhoun Community College, Decatur, Al
Local Arrangements Chair: George Williams, State Technical Institute, Memphis, TN

DECEMBER 6 - 7

The 89th CONFERENCE, Truckee Meadows Community College, 7000 Dandini Blvd., Reno Nevada 89512
Program Chair: Carolyn Collins, Clark County Community College, Las Vegas, NV. (702) 643-6060
Local Arrangements Chair: John Clevenger, Truckee Meadows Community College, Reno NV (702) 7221

APRIL 4 - 5

1985 - 1986 Academic Year

The 90th CONFERENCE Elizabeth Seton College,
1061 N. Broadway, Yonkers, NY 10701
Local Arrangements Chair: Sister Lucy Murphy,
Elizabeth Seton College, Yonkers, NY

APRIL 25 - 26

The 91st CONFERENCE William Rainey Harper College, Paletine, IL 60067
Program Chair: William Mooney Jr. El Camino College, Via Torrance, CA 90506
Local Arrangements Chair: Joseph Bauer,
William Rainey Harper College, Palatine, IL

OCTOBER 17 - 18

The 92nd CONFERENCE Greenville Technical College, Box 5616, Station B. Greenville, SC 29606
Program Chair: Leo Klin, III, Tri-Counties Technical College
Local Arrangements Chair: Alan Day, Greenville Technical College, Greenville, SC

NOVEMBER 14 - 15

The 93rd CONFERENCE Sinclair Community College, Dayton, Ohio 45402
Program Co-Chairs: John Kenkel Southeast Community College Lincoln NB and
Richard Jones, Sinclair Community College, Dayton, Ohio
Local Arrangements Chair: Richard Jones, Sinclair Community College, Dayton, Ohio