1991-92	Patricia A. Ward	Wheaton
1992-93	Jerry Berberet	North Central
1993-94	Jerry Berberet	North Central
1994-95	Robert Preston	Benedictine
1995-96	Marv Bartell	Concordia
1996-97	Marv Bartell	Concordia
1997-98	David Dickerson	Judson
1998-99	Phyllis Kittel	Benedictine
1999-2000	Phyllis Kittel	Benedictine
2000-01	Michael Bell	Elmhurst
2001-02	Michael Bell	Elmhurst
2002-03	Marv Bartell	Concordia
2003-04	Frank Pascoe	St. Francis
2004-05	Frank Pascoe	St. Francis
2005-06	Dev Pandian	North Central
2006-07	Dev Pandian	North Central
2007-08	Rick Venneri	St. Xavier
2008-09	Rick Venneri	St. Xavier
2009-10	Alzada Tipton	Elmhurst
2010-11	Alzada Tipton	Elmhurst
2011-12	Dale Simmons	Judson
2012-13	Greg Chenoweth	Olivet
2013-14	Bonnie Bondavalli	Lewis
2014-15	Bonnie Bondavalli	Lewis
2015-16	Frank Pascoe	St. Francis

ACCA Associated Colleges of the Chicago Area

ACCA 50th Anniversary Program

Associated Colleges of the Chicago Area

April 7, 2016

Argonne National Laboratory

Advanced Photon Source
Building 402

ACCA – Member Institutions – 2016

Aurora University

Benedictine University

Concordia University

Dominican University

Elmhurst College

Judson University

Lewis University

North Central College

North Park University

Olivet Nazarene University

Saint Xavier University

Trinity Christian College

Trinity International University

University of St. Francis

Wheaton College

ACCA 50th – Chairpersons of ACCA 1966-2016

1966-67	Mark Trumbo	Aurora
1967-68	William Dunn	Lake Forest
1968-69	Victor Arnold	North Central
1969-70	Clifford Holmes	George Williams
1970-71	Peter Veltman	Wheaton
1971-72	Carl Waldschmidt	Concordia
1972-73	Willis Snowbarger	Olivet
1973-74	Mark Trumbo	Aurora
1974-75	Norman Carroll	Rosary
1975-76	Norman Carroll	Rosary
1976-77	Rudolph Block	Concordia
1977-78	Edgar Boss	Judson
1978-79	Peter Veltman	Wheaton
1979-80	Sr. Jean Delores Schmidt	Mundelein
1980-81	Charles Rhee	George Williams
1981-82	James Taylor	North Central
1982-83	Marvin Camburn	Illinois Benedictine
1983-84	Sr. Jean Delores Schmidt	Mundelein
1984-85	Raphal Mascari	Lewis
1985-86	Burton Rozema	Trinity Christian
1986-87	E. Harold Harper	Judson
1987-88	Marjorie Marion	St. Francis
1988-89	Ivor Newsham	Olivet
1989-90	John Bohnert	Elmhurst
1990-91	Kathleen Owens	Lewis

ACCA 50th ANNIVERSARY PROGRAM

5:45 Tours of the Advanced Photon Source
6:30 Reception – Gallery of the Advanced Photon Source
7:30 Welcome and Introductions
Matthew Howard –Director of Communications, Education, and Public Affairs - ANL – Greetings from Argonne
Marv Bartell – ACCA Executive Director – Greetings from ACCA and Introductions
Frank Pascoe – University of St. Francis & ACCA Chairperson - ACCA History
7:45 Keynote Presentation – Introduced by Bart Ng, Benedictine University, ACCA Vice-Chairperson

DOUG SISTERSON – Argonne National Laboratory

Climate Disruption: Science-Based Evidence of What We Know

Doug Sisterson is currently the Instrument Operations Manager for the U.S. Department of Energy (DOE) Office of Science's **Atmospheric Radiation Measurement (ARM) Climate Research Facility** (www.ARM.gov) and one of the founding members since its inception in 1990. The ARM Facility is a national scientific user facility and is the largest federally sponsored climate change research program in DOE. The ARM Facility provides the world's most comprehensive 24/7 observational capabilities for obtaining atmospheric data specifically for climate change research. He currently has the overall responsibility for instruments and data quality management coordination for the ARM Facility.
Before turning to climate change, Doug's experimental work included studies of wind energy, fundamental boundary layer meteorology and micrometeorology, wet and dry removal processes and pollutant transport, and the physical and chemical processes (including atmospheric lightning) that lead to acid precipitation.
Doug frequently presents on a range of weather and climate topics in educational and public outreach environments ranging from middle school, university, and graduate school classrooms, to business, to scientific forums, to TED talks (more than 500 presentations since 1995). He has done several recent radio and TV interviews about weather and climate, and is a co-author of a popular book (Darling and Sisterson 2014: How to Change Minds About Our Changing Climate) intended for general audiences debunking climate myths (that climate change is not real) using science-based evidence. The book was one of five finalists for Green Category for the Multiple Sclerosis Books For a Better Life Awards in 2015.

ABSTRACT
Climate researchers conclude that the Earth has warmed by about 1.7 degrees Fahrenheit since 1880. The warming is greater over land, and greater still in the Arctic and parts of Antarctica. Even though this number may sound low, it is an average over the surface of the entire planet, and it is actually quite high. This seemingly small increase in global warming explains why much of the land ice on the planet is starting to melt and the oceans are rising at an accelerating pace. The New York Times on November 28, 2015, reported that "The heat accumulating in the Earth's atmosphere due to the increase of carbon dioxide from the burning of fossil fuels is roughly equal to the heat that would be released by 400,000 Hiroshima atomic bombs exploding across the planet every day."
Climate researchers have vetted the overwhelming science-based evidence and conclude that most was caused by human activities associated with the release of greenhouse gases. If emissions continue unchecked, researcher say that the global warming will exceed 8 degrees Fahrenheit. This would significantly transform the planet as we know it today and undermine its capacity to support a large human population. Tonight, I will focus on the "big picture" of science-based evidence of climate disruption.

ACCA History – 50th Anniversary

THE ASSOCIATED COLLEGES OF THE CHICAGO AREA
1966-2016

For a voluntary organization such as ACCA to survive and thrive for 50 years is truly remarkable. This is due to the commitment of the member institutions and the dedicated leadership and activity of numerous faculty and administrators over the years. Some of these leaders are mentioned later in this booklet, but there are many others who also deserve credit. It is with gratitude to all these leaders that over the years thousands of students have benefitted from experiences provided by ACCA.

ACCA's beginning was due to the fact that in the early 1960's laboratory equipment which had originally figured in President Eisenhower's "Atoms for Peace" program was made available by Argonne National Laboratory to faculty from area colleges. Mr. Jerry Baird was assigned to oversee the training of these faculty members and the scheduling of equipment.

By 1965, faculty were using the equipment in the Instructional Laboratories of Building 22 to upgrade their laboratory courses in such areas as nuclear physics, radio chemistry, analytical chemistry, and radiation biology. Students would accompany their professors to Argonne for several afternoons each semester in order to perform experiments on equipment which they did not have on their own campuses. In 1965 informal advisory groups of faculty suggested training programs for college faculty sponsored by the Institute of Nuclear Science and Engineering which was the educational division of Argonne.

At the suggestion of these faculty advisory committees, Jerry Baird initiated a conversation about mutual cooperation with each private liberal arts college within commuting distance of Argonne. The formal incorporation of the Associated Colleges of the Chicago Area was the culmination of both the suggestion of interested faculty and Jerry Baird's interaction with academic deans. Dean Mark Trumbo of Aurora College particularly encouraged the formation of a consortium of liberal arts colleges to facilitate cooperation with Argonne National Laboratory.

Over a period of several months, Jerry Baird and Dr. M. D. Peterson, Acting Director of the International Institute, met with each dean on the campus of 18 liberal arts colleges. The idea of a consortium was well received and a committee was formed to draw up by-laws and submit them to each college for approval. The committee consisted of Mark Trumbo (Aurora College), Norb Hruby (Mundelein College), and Victor Arnold (North Central College). After several months the 18 colleges agreed to incorporate as a not-for-profit organization in the state of Illinois. The actual incorporation became official in March of 1966.

ACCA History – 50th Anniversary – continued

The stated purposes of ACCA were fourfold;

1. to promote college-level education and training in biology, chemistry, mathematics, and physics;
2. to formalize the cooperative arrangements between the Associated Colleges of the Chicago Area and Argonne National Laboratory in the use of laboratory staff and facilities;
3. to promote inter-institutional cooperation among the Associated Colleges of the Chicago Area, for education and training in biology, chemistry, mathematics, and physics;
4. to establish and promote cooperative arrangements between the Associated Colleges of the Chicago Area and laboratories, foundations, and other organizations interested in higher education.

ACCA is therefore one of the oldest consortia of its kind in the United States. Dean Mark Trumbo served as the first Chairperson of the Executive Committee overseeing the activities of ACCA, and Jerry Baird served as the Executive Director of the organization for 29 years until his retirement from Argonne in 1995. Jerry was without doubt the reason ACCA survived successfully for 50 years. He was the organizer, motivator, encourager, instigator and tireless worker behind the scenes putting ACCA on a firm foundation which has endured for all these years.

One of the most successful ongoing activities sponsored by ACCA has been the annual *Student Symposium*. Held in the spring of the year on a college campus, the symposium provides the opportunity for undergraduates to present their research in the form of papers and posters. Begun in 1967 with approximately 10 students presenting, the Symposium today hosts over 200 students. In 2004, ACCA added another opportunity for collaboration. It initiated a *Scholarship of Pedagogy Symposium* enabling liberal arts faculty to share innovations in pedagogy with their ACCA colleagues.

The strength of ACCA has always been the faculty initiative and interest which initially linked Argonne National Laboratory and the cooperating colleges. By the late 1980's the original four divisions had expanded to eight:

Biology	Mathematics
Business/Economics	Physics
Chemistry	Psychology
Computer Science	Sociology/Anthropology

Within each of these disciplines, lectures, seminars, workshops, and cooperative courses have been developed over the years to enhance the educational growth of faculty and students.

ACCA History – 50th Anniversary – continued

A further expansion of the role of ACCA (consistent with its initial objectives) occurred in 1985 when a *Cooperative College Botany Program* was established with the Morton Arboretum. This program offers year round college botany courses which are available to students from participating ACCA institutions. At least one school used these courses to form a Botany major. An NSF grant funded lab equipment including microscopes and a part-time program coordinator. Many of these courses were only available in the Chicagoland area through this ACCA program. A similar arrangement was established with the Shedd Aquarium in 1999. A special course for ACCA students, titled *Marine and Island Ecology of the Bahamas*, includes a week-long Bahama's experience on Shedd's research vessel. The newest cooperative relationship, started in 2011, is with the Hooke College of Applied Sciences (part of the McCrone Group), offering ACCA students courses and extensive laboratory experience in the field of microscopy.

During the first three decades of ACCA/Argonne activity, much of the support for the various programs was provided by Argonne. In the mid-1990's the education budget for Argonne was significantly reduced by the Department of Energy. This reached a climax in 1998 when Argonne indicated it could no longer provide the support services to ACCA which it had done previously without significant contributions from each of the member ACCA institutions. The member colleges were not able to provide these resources, so the ACCA/Argonne partnership ended. However, ACCA decided to operate as an organization independent of Argonne, which it continues to do today. ACCA is, however, very grateful for the extensive support which it received from Argonne National Laboratory for many years. We are also excited to be able to return to the location of our founding for our 50th Anniversary Celebration.

As ACCA commemorates its Fiftieth Anniversary at a time of serious societal and educational need in the fields of science and technology, it can take pride in being an organization which was ahead of its time. STEM is the big emphasis presently, but ACCA "WAS STEM" for the last 50 years! Its accomplishments illustrate the special role of the liberal arts college in educating the nation's scientists. ACCA is well positioned to meet the challenges of a future which will require even greater cooperation among educational institutions and a variety of science organizations, such as ACCA's current partners and other possible organizations.

Marv Bartell
ACCA Executive Director (2004-16)
Frank Pascoe
ACCA Chairperson 2016

(Some of the historical information above was excerpted from the records of ACCA's 25th Anniversary, written by Pat Ward (Wheaton College), then chairperson of ACCA, with the assistance of Jerry Baird.)