

Increased Participation of Minorities in AIChE: A History

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An excerpt from "The AIChE Centennial Book"

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The AIChE Minority Affairs Committee, formed in 1990, had its origins from the efforts of a small group of individuals dating back to 1968, with the formation of the "Task Force on Minority Youth Career Guidance." Gerry Lessells, who was working for Mobil Chemical Company and a member of AIChE's New Jersey Local Section, spearheaded this effort after his initial proposal to AIChE Council in 1966. After lobbying with F. J. Van Antwerpen, Secretary of the Institute, and Prof. Wayne R. Kube of the University of North Dakota, who was the Chairman of AIChE's National Career Guidance Committee, Lessells received the approval to head this task force "as a member-at-large of the Career Guidance Committee with responsibilities of directing the Task Force." The first meeting was attended by Henry Brown (Squibb, New Brunswick, New Jersey), Arthur Hartford (duPont), Clayton Hill (duPont), and Tom Towkowitz (duPont). At a second meeting held on April 4, 1968, which was, coincidentally, the day of the assassination of Dr. Martin Luther King, Jr., the group, joined by Bob Ahlert (Rutgers University), Bob Holmes (Esso), and Arnold Stancell (Mobil), reviewed and edited a proposed position statement that had been drafted earlier. It was presented to and accepted by AIChE Council at its Tampa meeting on May 18, 1968.

"Since AIChE already has a strong career guidance role, the Institute fully endorses the concept of local section programs to encourage underprivileged and disadvantaged minority group youth towards professional and technical careers in science and engineering. No longer should extensive human resources go untapped because of artificial barriers or poor communications—particularly at a time when there is an increasing national need for scientific talents.

In addition, we as members of AIChE are sorely conscious of the deepening racial division within our country, and of the enormous effort that must be expended to alleviate the continuing polarization of the American community. We realize that positive steps must be taken to solve the problems of our urban slums, and we would like to contribute to the long-term solution.

Hence, AIChE has designated a Task Force on Minority Youth Career Guidance. This task force has the specific job of defining and establishing methods and techniques that can be implemented by the local sections, to extend the opportunity for a scientific or engineering career to every citizen in our nation, regardless of race or creed—or his status of birth."

It should be noted that in 1968, AIChE was the first engineering society to adopt a program addressing

this need. The American Chemical Society (ACS) Project SEED was organized the same year, and there was a great deal of collaboration between the founding members of these groups during this period.

From its formation until 1972, the work of the Task Force was a major contributor to the work of AIChE's Career Guidance Committee. Operating under the title of "Career Guidance to Disadvantaged Youth," it produced a manual called "Guidelines for Putting a Program of Career Guidance for Disadvantaged and Underprivileged Youth into Action," an audio-visual presentation for AIChE local sections, and held several programming sessions at National AIChE meetings. It was not, however, very successful at getting local sections to adopt programs for this purpose.

The highs and lows of the Task Force's performance from 1971 to 1976 were marked by the loss of minority representation on the committee. Individuals lacked the support and sponsorship by their respective companies for the national committee. On the other hand, a number of these engineers remained involved with minority pre-engineering programs sponsored by other groups and by universities.

In 1976, during his last year as a Director of the Institute, Lessells proposed that the Institute establish a voluntary post of Minority Affairs Coordinator to handle any questions relating to minorities and the Institute, in addition to those on career guidance. Council approved the position and Lessells handled the duties of the Coordinator by fielding questions on

the subject and acting as AIChE liaison to several more active groups until the position was relinquished to Henry Brown, in 1983.

The Institute's annual funding for these programs was \$750–\$1,000, which supported one ACS Project SEED student. During the summer, the coordinator would interact with this student who worked out of the New Jersey Institute of Technology. As the AIChE liaison to Chemical Industries for Minorities in Engineering (ChIME) and to the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCCHE), the coordinator attended regular meetings of these organizations. His advice and suggestions often influenced not only the direction of the various programs, but also the funding to support these pre-engineering projects. Meeting expenses (travel and registration fees) were provided by the J. M. Huber or Polaroid companies, the respective employers of these Minority Affairs Coordinators.

In 1987, after a presentation to AIChE Council on the merits of doing more and something different, Council agreed to provide \$30,000 annually to support and fund several minority engineering programs. Council also approved a voluntary dues check-off for the minority affairs initiative as a means of encouraging all AIChE members to financially support this effort.

To coordinate these activities, AIChE President James Wei suggested the formation of an AIChE Minority Affairs Committee that would be similar in its structure to other Institute

committees. For the first time in the history of working on minority issues in the Institute, three fully-company-supported African-American industrial members — Eugene Alsandor (Shell), Irvin Osbourne-Lee (Oak Ridge National Laboratories), and Henry Brown (Polaroid) — were available for the committee. When the committee structure was approved in 1989, Irvin Osbourne-Lee was the first Chair selected in 1990, but the trio (named above) was the driving force that contributed to making the committee an integral and influential part of the AIChE structure.

In 1983, at the time of AIChE's 75th Anniversary celebration, this was not the case. This national career guidance initiative was deemed a failure because of the lack of follow-up by local sections. In all probability, however, it was the result of a lack of resources at the National level. The following 1983 document explains this reality:

“In December, 1967, Gerry Lessells was named chairman of a national task force on minority youth career guidance. In May 1968, the task force asked Council to make minority youth career guidance a permanent activity of AIChE. It recommended that the society adopt a position statement supporting minority career guidance efforts, put together a package of materials on minority career guidance, and aggressively seek industrial support in the form of scholarship aid and summer jobs for disadvantaged youth. Council accepted these recommendations and asked the task force to develop an implementation program.”

The program, adopted in September 1968, put the burden of implementation on local sections since they were best equipped to approach local industry, establish ties with local minority groups and work through ghetto schools. It also placed considerable emphasis on involving minority technical personnel in the effort. The new program was publicized in CEP and promoted by presidential letter and Council liaison.

During the next few months, the Task Force for Disadvantaged and Underprivileged Youth, now a permanent subcommittee of the Career Guidance Committee, held sessions at two AIChE meetings. National AIChE headquarters, in the meantime, sent minority career guidance packets to 61 local sections. Despite these efforts, the results were disappointing.”

Today's Minority Affairs Committee (MAC) is dedicated to increasing the successful participation of underrepresented groups in chemical engineering. The committee objectives include:

- to promote the well-being of AIChE by increasing the representation of disadvantaged and underrepresented minorities in chemical engineering
- to stimulate an early interest among students in scientific careers and those subjects vital to a career in engineering
- to provide a forum for the exchange of information and ideas among individuals (practicing engineers, educators, and students) engaged in all phases of minority affairs
- to instill an interest in AIChE among engineers who represent a

disadvantaged and underrepresented minority group

- to coordinate AIChE's activities with other societies active in minority affairs
- to provide leadership, assistance and expertise as appropriate to the Institute, and industrial, educational and governmental entities in all areas as relates to minority affairs.

Working with all levels in the academic pipeline from K–12 to faculty, MAC is committed to supporting students through scholarships and mentoring programs. These activities have been well supported by the membership with the contributions from the dues check-off described earlier. These funds have averaged about \$30,000 each year. In recent years there has been some limited success in the solicitation for corporate contributions, but the effort is continuing.

The funds for the initiative have been used in a variety of different ways. There have been pre-engineering programs supported by AIChE and managed by other groups, notably ChIME, NOBCChE, ACS Project SEED, New Jersey Institute of Technology, and City College of New York. A welcoming party and awards presentation are feature activities at the Annual Meetings of the Institute. In addition to the announcement of student scholarships, honorees are presented for the committee's MAC Distinguish Service Award and the William Grimes Award. While the session is opened to all meeting attendees, it has become a place for networking by minority students, faculty, and industrial representatives. Also note-

worthy has been the Urban Outreach (guidance and mentoring) programs conducted by the MAC members for minority students at local inner city schools in places where AIChE meetings are held. They have brought very favorable publicity for the Institute in cities where these outreach programs have been presented.

Currently, the committee's main thrust has been that of providing scholarship awards and mentoring for minority students in chemical engineering to aid in the retention of students. Since 1994, the Minority Affairs Committee has developed and sustained a scholarship program for high school (incoming freshman) and college students seeking the chemical engineering baccalaureate degree. As of 2015, a total of 391 scholarships had been awarded to African-American, Hispanic, and Native-American students who have excellent academic records and who have identified financial needs. This effort has been led continuously by Emmanuel Dada. Funding of these scholarships has relied on the previously mentioned voluntary annual contributions by AIChE members, and have been supplemented by some private and corporate donations.

In 2015, the AIChE Foundation announced the launch of a new MAC Endowment fundraising campaign, which aims to raise some \$300,000 to enhance and provide perpetuity for the the MAC scholarship program.

The Minority Faculty Forum (MFF) became a subcommittee of MAC in November 1995. It grew out of a regular dinner meeting held by

a group of minority faculty during AIChE Annual Meetings in the early 1990s. These informal gatherings created a sense of community amongst a group that traditionally had not been well represented in chemical engineering academic circles. With Lance Collins as its first chair (1995–2004), the forum set specific goals to:

- provide guidance and support for minority faculty at all ranks
- mentor minority graduate students or professionals in industry who aspire to an academic career, and
- develop a network for scientific, social and political discussion.

Committee members have been quite active in supporting and mentoring colleagues, minority graduate students, and faculty members. In conjunction with the NSF, several workshops and a MFF Symposium, “Making It,” were held as a means of providing help for the participants in this area.

At the time of this reporting (April 2008), statistics tabulated by the National Science Foundation’s (NSF) Division of Science Resources indicated that underrepresented minorities made up 15% of graduating chemical engineers in the mid-2000s (African-American 6.7%, Hispanic 6.5%, and Native-American 1.8%). These percentages had not changed much since the late-1990s, but there had been a noticeable increase in those percentages over the previous 15 years.

More recently, a 2013 report from the NSF’s Center for Science and Engineering Statistics shows that the percentage of engineering bachelors degrees earned by underrepresented

minorities remained flat from 1996–2010, at about 13%.

Despite the recent leveling off in enrollment numbers among some minority engineers, it has been encouraging to find greater participation and a larger presence of minority members in the affairs of the Institute. Minority members serve as chairs and participants of the Operating Councils and technical committees. Since 1981, when Henry Brown was elected the first African-American member of AIChE Council (now the Board of Directors), many minority candidates have been elected to the Board. In 2014, Otis Sheldon served as Institute president, the first African-American to hold that office. In addition, there have been many African-American Fellows of the Institute since the election of William Grimes in 1982.

To make the profession as friendly to minorities as it has been for women, the efforts on minority affairs must continue. Support of MAC by the Institute and its members is crucial if we are to obtain improvements in the statistics that are more than just incremental in nature as they have been for the last ten years.