



ANNUAL REPORT 1977-78



Dr. Edward R. Kane, President of E. I. DuPont de Nemours and Co., Inc., addresses the Golden Triangle Alliance for Minorities in Engineering at Lamar University, Beaumont, Texas on December 2, 1977. Looking on are Mr. Lawrence Marshall, Associate Superintendent, Houston Independent School District (and President of TAME, Inc.) and the Honorable John G. Tower, Senior United States Senator from Texas.

SUMMARY

TAME, Inc. was created in 1976 by a group of friends and colleagues in the engineering colleges, public schools and industry who, interacting with one another, had become individually concerned at the low percentage of minority students in the state's engineering colleges. They thereupon formed a modest organization within which to work collectively.

The academic year 1977-78 has been a singularly productive one for TAME, Inc. Six regional alliances were created — in Corpus Christi, Dallas, Beaumont/Orange/Port Arthur, El Paso, Fort Worth and Victoria — joining the programs now in being in the Rio Grande Valley, Houston, San Antonio and Austin.

The state's engineering schools observed a net increase of 190 entering minority freshmen over the previous year, 1976, when the best available records indicate that 900 minority freshmen enrolled. This increase of 21% in a single year suggests that the efforts of the universities, industry and presumably TAME itself are beginning to succeed in the effort to increase minority representation in engineering.

The board of directors takes considerable pride in the relatively modest budgets by which its corporate purposes have been advanced. It has concluded that the problem TAME, Inc. is addressing is not one to be solved primarily by money, but rather by energizing local interests, encouraging non-traditional forms of cooperation and the marshalling of local resources. By August 31, 1978 our expenditures for the year are projected to be in the range of \$50,000 with a budget for the next fiscal year at a level of \$80,000.

In March of 1978, the board met at Lakeway, near Austin, with the directors of the then-existing local alliances, for its first retreat and long range planning session. The success of this session led us to decide that two such annual sessions would be optimum. Accordingly, the board and the regional directors will meet in Austin on January 8-9, 1979 as participants in the National Academy/NRC regional symposium on minorities in engineering. This symposium will be cosponsored by TAME, Inc., The University of Texas at Austin and the Academy.

ACTIVITIES AND PROGRAMS

During the academic year 1976-77, TAME, Inc.'s first year of operation, four regional alliances were created; in the Rio Grande Valley, in Houston, in San Antonio and in Austin as described in last year's annual report.

This activity continued in academic year 1977-78 with the creation of six additional alliances in Corpus Christi, Dallas, Beaumont/Orange/Port Arthur, El Paso, Fort Worth and Victoria.

Our organizing method continued as before; on a Friday afternoon, a TV-press conference is called, usually by the urban school district which is participating. Representatives of local industry, universities, junior colleges and invited speakers discuss the purposes of the weekend symposia. On Friday evening, TAME, Inc. hosts a reception and dinner for public school officials, school board members, industry, commercial and political leaders in the community. A brief program describes TAME, Inc. and its concerns, the NACME slide/tape presentation "A Good Place to Start" is shown and a prominent speaker is featured. On the following Saturday, a morning-long program, devised for math and science teachers, counselors and high school students, is presented. Luncheon is served to all participants and a speaker eminent in the engineering profession

closes the program. The programs for these six symposia appear in Appendix "A".

It will be of some interest to set out details of a few local programs and thereby give the reader some conception of how TAME, Inc. actually works. Appendix "B" describes the Austin Alliance which has been in operation for over one year. Appendix "C" is the program for the newly-formed Victoria Alliance's teacher in-service program and a parent-student orientation.

During the Fall of 1977, TAME, Inc. with the cooperation of The University of Texas School of Communication, produced a 12 minute videotape, "You Can Get There From Here!" It describes the engineering profession, portrays a number of engineering specialties and utilizes minority engineering students and young minority engineers in industry to create a believable atmosphere. This videotape has been distributed to every regional alliance, to all of the major school districts and to the twenty Educational Service Centers operated by the Texas Education Agency. The videotape is available on loan at no cost to users outside the state of Texas.

PERSONNEL

A current roster of regional alliance chairmen is given below:

Austin:

Mr. Ken R. Cargill
Personnel Manager
IBM Corporation
11400 Burnet Road
Austin, Texas 78759
(512) 838-6410

Beaumont/Orange/Port Arthur:

Mr. Robert Brownlee
E. I. DuPont de Nemours & Co., Inc.
P. O. Box 1089
Orange, Texas 77630
(713) 883-8411

Corpus Christi:

Mr. J. Howard Stark
Sun Oil Company
P. O. Box 2608
Corpus Christi, Texas 78403
(512) 241-4811

Dallas:

Mr. William C. Hamilton
Executech
7122 Alpha Road
Dallas, Texas 75240
(214) 661-2193

El Paso:

Mr. Edwin P. Murdoch
Mountain Bell Telephone Co.
L 48 500 Texas Street
El Paso, Texas 79901
(915) 452-4341

Fort Worth:

Mr. J. Patrick Jamison
Texas Electric Service Co.
P. O. Box 970
Fort Worth, Texas 76101
(817) 336-9411

Houston:

Dr. Stanley G. Ebner
Dean of Technical Studies
University of Houston-Downtown
One Main Street
Houston, Texas 77002
(713) 749-2060

Rio Grande Valley:

Mr. Philip Rogers
Region I Educational Service Center
1900 W. Schunior
Edinburg, Texas 78539
(512) 383-5611

San Antonio:

Dr. William R. Wakeland
Chairman, Engineering Science
Trinity University
715 Stadium Drive
San Antonio, Texas 78212
(512) 736-7512

Victoria:

Mr. A. D. Cyphers
E. I. DuPont de Nemours & Co. Inc.
P. O. Box 2626
Victoria, Texas 77901
(512) 573-3211

A typical alliance in terms of size and composition, that of El Paso, is also shown, Appendix "D".

EFFECTIVENESS

It is of critical importance that we establish a means of measuring our effectiveness as an organization entrusted with substantial contributions from industry and foundations. We in fact addressed ourselves to this problem at the board retreat at Lakeway, near Austin in March of 1978. The executive director is to submit an evaluation plan to the board in the Fall of 1978.

An essential first step is to establish a numerical baseline against which to plot enrollment (and ultimately retention and graduation) figures over time.

We are compelled to start modestly because data is either partial or unavailable. Appendix "E" indicates changes over a two-year period in freshmen engineering enrollments. While there has been about a 20% increase in minority freshmen for the current year, we have

as yet no way of knowing what contributed to the rise, how many of last year's freshmen remain in the engineering curriculum, nor any means of forecasting future minority enrollments.

It is probably safe to generalize that industry funds for financial aid and active recruitment by the schools of engineering together with a growing number of early identification and summer programs have produced the 20% increase we now see. Given the ambitious program TAME has set for itself and the rising proportion of minorities in the Texas school-age population (40%), we can conclude on intuitive grounds that we must see an exponential rather than a linear increase in minority engineering enrollment over the next three years in order to claim effectiveness for TAME's effort.

FUNDING AND BUDGET

Acquisition of a declining balance three-year grant from the Alfred P. Sloan Foundation in the Fall of 1977 made possible a considerable increase in TAME's activities in 1977-78. In November, 1977, the budget committee allocated \$47,000 for the period September 1, 1977 to August 31, 1978. This budget appears as Appendix "F". TAME's books are kept on a cash basis and we have retained the accounting firm of Garcia, Morrison & Co. to oversee our accounts. They have prepared our financial statement for the fiscal year ending June 30, 1978, for use in our corporate tax return. The budget committee has recently voted to alter our tax year to correspond with our budgeting cycle.

Large industrial corporations continue to be our source of financial support, apart from the Sloan grant. These companies are:

- Amoco Foundation Inc.
- Celanese Corporation
- Continental Oil Company
- Dow Chemical, USA
- E. I. DuPont de Nemours & Co., Inc.
- Exxon Company, USA
- The General Electric Foundation
- International Business Machines Corporation
- Mobile Oil Corporation
- Motorola, Inc.
- Tenneco, Inc.
- Texaco, Inc.
- Texas Eastern Corporation

GOLDEN TRIANGLE SEMINAR
on

MINORITIES IN ENGINEERING

December 3, 1977

LAMAR UNIVERSITY

DALLAS SEMINAR

ON

MINORITIES IN ENGINEERING

October 29, 1977

SOUTHERN METHODIST UNIVERSITY
Dallas, Texas

GOLDEN-CRESCENT SEMINAR
on

MINORITIES IN ENGINEERING

November 8, 1978
DAY INN

WEST TEXAS SYMPOSIUM ON MINORITIES IN ENGINEERING

February 25,

University of Texas
at El Paso



SPONSORS:

Texas Alliance for Minorities in Engineering
University of Texas at El Paso
El Paso Community College
National Hispanic Resource Center
Mexican American Engineering Society—U.T. El Paso
Student Chapter

FORT WORTH SYMPOSIUM ON MINORITIES IN ENGINEERING

April 15, 1978

The
University of Texas
at Arlington



SPONSORS:

Texas Alliance for Minorities in Engineering, Inc.
The University of Texas at Arlington
Tarrant County Junior College
Fort Worth Independent School District

Corpus Christi Seminar
on

MINORITIES IN ENGINEERING

September 24, 1977

STAR COLLEGE



Engineering, Inc.
University

8:15 CONTINENTAL BREAKFAST
Harvin Center

8:30 REGISTRATION - Wolfe Recital Hall Foyer

9:00 WELCOME - Wolfe Recital Hall

MR. ED SAMPLE
Councilman, City of Corpus Christi

DR. ROBERT SLOAN
Dean of Arts & Sciences, Del Mar College

MR. R. F. TICKNER
Exxon Company U. S. A.
"TAME, Inc. - Its Origins and Goals"

9:10 NACME Slide Presentation, "A Good Place to Start"

Introduction by A. W. GOODSON
Location Manager, Data Processing Division,
IBM Corporation, Corpus Christi

9:35 "BUT WHERE IS THE MONEY COMING FROM?"
MR. JACK ROBOTOM, Executive Director, TAME, Inc.

9:45 PANEL PRESENTATION

Industry's Stake in Minority Engineering Education
Moderator: MR. A. W. GOODSON, IBM, Corpus Christi

PANEL: MS. CAROLYN EVANS
Systems Engineer, IBM, Houston

MR. CARLOS McDERMOTT
Industrial Consumer Consultant
Central Power & Light Co., Corpus Christi

MR. A. A. MILLER
Industrial Relations
Celanese Corporation, Corpus Christi

MR. ED SAMPLE
Engineer
Champlin Refinery, Corpus Christi

10:20 QUESTION and ANSWER PERIOD

10:35 COFFEE

10:55 PANEL PRESENTATION

ENGINEERING EDUCATION OPPORTUNITIES

MODERATOR: DR. GREG GRIDLEY,
Director of Developmental Services,
Corpus Christi Independent School District

PANEL: DR. E.J. PIEL
Executive Director NCCCD
College of Engineering & Applied Sciences
State University of New York at Stony Brook

MR. JOE TREJO
City Engineer, City of Kingsville

MR. RALPH E. GILCHRIST
Dean, College of Science & Technology
Corpus Christi State University

DR. GEORGE TREVINO
Department of Physics
Del Mar College

MR. FRANK VELTRY
Science Consultant
Corpus Christi Independent School District

11:30 QUESTION and ANSWER PERIOD

11:45 FILM, "A Heritage of Change"

12:00 LUNCH - Harvin Center, Retama Room

INTRODUCTION OF SPEAKER:
DR. GREG GRIDLEY
Director of Department of Developmental Services

PRINCIPAL SPEAKER:
DR. DAVID R. REYES-GUERRA
Executive Director,
Engineers' Council for Professional Development

PRESIDING:
MR. JACK ROBOTOM
Executive Director, TAME, Inc.

CORPUS CHRISTI SEMINAR



TEXAS ALLIANCE FOR MINORITIES IN ENGINEERING, INC.

Reception Hilton Inn

September 23, 1977

RECEPTION	6:30
DINNER	7:30
WELCOME	8:15

EDUARDO DE ASE
Mayor Pro Tem, City of Corpus Christi

MR. RAYMOND F. TICKNER
Exxon Company, U. S. A.
Chairman of Board, TAME, Inc.

NACME Slide Presentation, "A Good Place to Start"

Introduction by A. W. Goodson,
Location Manager, Data Processing Division,
IBM Corporation, Corpus Christi

Introduction of Guest Speaker

MR. JOHN S. ROBOTOM
Executive Director, TAME, Inc.

Guest Speaker
MR. CESAR DE LEON
Director of Pipeline Safety Operations
U.S. Department of Transportation

- 8:00 a.m. CONTINENTAL BREAKFAST AND REGISTRATION
Ballroom, Umphrey Lee Student Center, SMU
- 8:40 a.m. CONVENE FOR PLENARY SESSION
Mr. John S. Robottom, Executive Director, TAME, Inc., Presiding
WELCOME
Mr. Robert Folsom, Mayor of Dallas
Dr. Karl Willenbrock, Dean, School of Engineering and Applied
Science, SMU
Mr. Peter Suarez, Equal Opportunity Program Manager,
IBM Corporation
- 8:50 a.m. NACME SLIDE PRESENTATION, "A Good Place to Start"
Introduction by Mr. James Malone, System Support Center
Manager, IBM Corporation, Dallas
- 9:15 a.m. "BUT WHERE IS THE MONEY COMING FROM?"
Mr. Garvey E. Clarke, President
National Fund for Minority Engineering Students, New York
- 9:30 a.m. PANEL PRESENTATION
Industry's Stake in Minority Engineering Education
Moderator: George Berryman, Manager Corporate
College Relations, Texas Instruments
Panel: Ms. Mary Wallace, Technical Services Engineer, Texas
Power & Light, Dallas
Mr. Bob Edwards, Personnel, Southwestern Life Insurance
Mr. Trini Garza, Heating and Air Conditioning
Mr. Al Nash, Manager of Personnel — Hybrid
Micro-Electronics Division, Rockwell International
Mr. Art DeVillar, Corporate Manager, Minority
Development, IBM Corporation

- 10:15 a.m. QUESTION AND ANSWER PERIOD
Moderator: Dr. Ruby Morris, Deputy Assistant Superintendent —
Pupil Personnel Services, DISD
- 10:30 a.m. COFFEE
- 10:50 a.m. PANEL PRESENTATION — The Engineering and Academic
Resources of North Central Texas
Moderator: Dr. B. J. Stamps, Assistant Superintendent —
Instructional Services, DISD
Panel: Dean Jack W. Harkey, Assistant Dean, School of
Engineering and Applied Science, SMU
Dr. John D. Daigh, Chairman, Math and Engineering
Division, Eastfield College
Dr. Elinor S. Pape, Assistant Professor, Department of
Industrial Engineering, University of Texas at Arlington
Dr. Marian Visich, Jr., Program on Technology in Society,
State University of New York, Stony Brook, N.Y.
- 11:30 a.m. QUESTION AND ANSWER PERIOD
Moderator: Mr. William C. Hamilton, Executive Vice-President,
Executex Inc., Management Consultants
- 12:00 noon LUNCHEON
Cafeteria, Umphrey Lee Student Center, SMU
Program, Ballroom

Introduction of Speaker:
Dr. B. J. Stamps, Assistant Superintendent — Instructional
Services, DISD
Principal Speaker:
Dr. A. F. Stancell, Vice-President and General Manager — Films,
Plastics Division, Mobil Chemical Company, Macedon, New
York

RECEPTION

TEXAS ALLIANCE FOR MINORITIES IN ENGINEERING, INC.

Hilton Inn
October 28, 1977

Reception: Mezzanine 6:15 p.m.

Invocation: Dean Jack Harkey, Assistant Dean,
School of Engineering and Applied
Science, SMU

Dinner: South Ballroom 6:45 p.m.

Welcome and Introductions

- Mr. John S. Robottom, Presiding
Executive Director, TAME, Inc.
- Mr. Peter M. Suarez, Equal Opportunity Program Manager, International
Business Machines Corporation Vice-President, TAME, Inc.
- Dr. James H. Zumberge, President
Southern Methodist University, Dallas
- Dr. R. Jan LeCroy, Vice-Chancellor of Academic Affairs
Dallas County Community College District
- Mr. Robert L. Price
Member, Board of Education
Dallas Independent School District
- Mr. Mel R. Noack, Manager
Part Interest Companies, Dallas
Mobil Pipe Line Company

National Academy of Engineering Slide Presentation

- Mr. Garvey E. Clarke, President
National Fund for Minority Engineering Students,
New York

Principal Address

- Honorable Robert Krueger
21st District
House of Representatives
U. S. Congress

DALLAS SEMINAR

8:15 a.m. CONTINENTAL BREAKFAST AND REGISTRATION

Richard W. Setzer Student Center, Arbor Area

9:00 a.m. SEMINAR — Science Auditorium

WELCOME: *Dr. George E. McLaughlin*
Vice President for Student Affairs
Lamar University

Mr. R. L. Hansen
Manager, Technical Recruiting and
College Relations
Dow Chemical, U.S.A.
Director, TAME, Inc.
"TAME, Inc. — Its Origin and Goals"

9:10 a.m. NACME SLIDE PRESENTATION, "A Good Place to Start"

INTRODUCTION:

Ms. Rebecca Turner
Affirmative Action Coordinator
Gulf States Utilities Company, Beaumont

9:30 a.m. PANEL PRESENTATION
Industry's Involvement in Minority
Engineering Education

MODERATOR:

Mr. Joe Kanewske
Supervisor
Texaco, Incorporated, Port Arthur

PANEL:

Ms. Carolyn Evans
Advisory Systems Representative
IBM Corp., Houston

Mr. T. G. Reynolds
Assistant Plant Manager
Texaco, Incorporated, Port Arthur

Dr. R. N. Noisette
Coordinator of NACME Programs
E. I. du Pont de Nemours & Co., Inc.
Wilmington, Delaware

10:30 a.m. COFFEE

10:45 a.m. PANEL PRESENTATION

Engineering Education Opportunities

MODERATOR:

Dr. Richard L. Price
Associate Professor of Mathematics
Director of Engineering Minority
Recruitment and Retention
Lamar University

PANEL:

Mr. Lawrence Marshall
Associate Superintendent
Houston Independent School District
President
Texas Alliance for Minorities in Engineering, Inc.

Dr. R. A. McAllister, P.E.
Dean, College of Engineering
Lamar University

Dr. E. J. Piel
Executive Director, National Coordination
Center for Curriculum Development
College of Engineering & Applied Science
State University of New York at Stony Brook

11:45 a.m. "We Have Started"

Mr. R. C. Brownlee
Senior Engineer
E. I. du Pont de Nemours & Co., Inc., Orange
Chairman
Golden Triangle — NACME Committee

12:00 NOON LUNCH — Richard W. Setzer Student Center Ballroom

INTRODUCTION OF SPEAKER:

Dr. John S. Robottom
Executive Director
TAME, Inc.

SPEAKER:

Mr. Garvey E. Clarke
President
The National Fund for Minority
Engineering Students
New York, N. Y.

GOLDEN TRIANGLE SEMINAR

LAMAR UNIVERSITY
December 2, 1977

RECEPTION

6:00 — 7:00 p.m.

Julia Plummer Reading Room
Mary and John Gray Library

BANQUET

7:00 p.m.

Richard W. Setzer Student Center
Ballroom

INVOCATION

The Reverend Edward W. Brown, Pastor
Antioch Missionary Baptist Church,
Beaumont

INTRODUCTIONS

**NATIONAL ADVISORY COUNCIL ON MINORITIES IN
ENGINEERING SLIDE PRESENTATION —
"A Good Place to Start"**

Dr. John S. Robottom
Executive Director, Texas Alliance for
Minorities in Engineering, Inc.

INTRODUCTION OF SPEAKER

Mr. R. C. Brownlee
Senior Engineer
E. I. du Pont de Nemours & Co., Inc.,
Orange
Chairman
Golden Triangle — NACME Committee

SPEAKER

Dr. Edward R. Kane
President
E. I. du Pont de Nemours & Co., Inc.
Chairman
National Advisory Council on Minorities
in Engineering

INTRODUCTION OF SPEAKER

Mr. Lawrence Marshall
Associate Superintendent
Houston Independent School District
President
Texas Alliance for Minorities in
Engineering, Inc.

SPEAKER

The Honorable John G. Tower
United States Senator from Texas



— Presiding —

Dr. R. A. McAllister, P.E.
Dean, College of Engineering
Lamar University

8:15 a.m.

Cafe y Pan de Dulce
Union Theater Lobby

9:00 a.m.

SEMINAR—Union Theater

WELCOME: Mr. Oscar Valadez
Vice President, Instruction and
Student Affairs
El Paso Community College

Dr. Kenneth E. Beasley
Vice President for Academic Affairs
University of Texas at El Paso

The Honorable Ray Salazar
Mayor of the City of El Paso

9:20 a.m.

"TAME—Its Structure and Goals"
Mr. Richard L. Hansen
Manager, Technical Recruiting
and College Relations
Dow Chemical, U.S.A.
Treasurer, TAME, Inc.

9:35 a.m. PANEL PRESENTATION

MODERATOR:

Dr. Jack Smith
Dean, College of Engineering
University of Texas at El Paso

PANEL:

Mr. Dan Guerrero
Executive Assistant
Mexican American Engineering
Society

Mr. Robert Hage
National Fund for Minority
Engineering Students

Mr. Manuel Chavez
Senior Engineer Manager
Office Products Division—Austin IBM

Mr. George Ferguson
Counselor, Jefferson High
School
El Paso Public Schools

10:40 a.m. BREAK

11:00 a.m. QUESTION AND ANSWER PERIOD

11:30 a.m. "Development of educational materials to
strengthen the educational experience of
minority students."

Dr. W. Lionel Craver
Associate Professor
Mechanical & Industrial
Engineering Department
University of Texas at El Paso

12 Noon

LUNCHEON—Union Cafeteria

INVOCATION:

Reverend Mario Islas
Religion Instructor
University of Texas at El Paso

INTRODUCTION OF SPEAKER:

Mr. Antonio Tinajero—G.
National Hispanic Resource Center

SPEAKER: Mr. Jaime Oaxaca,
Vice President
Electromechanical Division
Northrop Corporation

WEST TEXAS SYMPOSIUM

Granada Royale Homotels—Eastside Meeting Room
6100 Gateway East, El Paso, Texas
February 24, 1978

RECEPTION

BANQUET

6:00—7:00 p.m.

7:00 p.m.

INVOCATION

Most Reverend Sidney Metzger
Bishop of the El Paso Diocese

"TAME—ITS STRUCTURE AND GOALS" 8:00 p.m.

Mr. Raymond F. Tickner
Exxon Co., U.S.A.
Chairman of the Board, TAME, Inc.

NATIONAL ADVISORY COUNCIL ON MINORITIES IN
ENGINEERING SLIDE PRESENTATION —

"A Good Place to Start"

Mr. John S. Robottom
Executive Director, TAME, Inc.

INTRODUCTION OF SPEAKER

Dr. Robert E. Shepack—President
El Paso Community College

SPEAKER

Dr. David Reyes-Guerra
Executive Director
Engineers Council for
Professional Development

INTRODUCTION OF SPEAKER

Dr. John Hernandez
Dean of Engineering
New Mexico State University

SPEAKER

Mr. Patrick Apodaca
Associate Legal Counsel
to the President



—Presiding—

Mr. Oscar Valadez
Vice President
Instruction and Student Services
El Paso Community College

8:30 a.m. CONTINENTAL BREAKFAST AND REGISTRATION

9:00 a.m. SEMINAR

WELCOME: *A. D. Cyphers*
President
Golden-Crescent Alliance for
Minorities in Engineering
Plant Manager
E. I. du Pont de Nemours & Co., Inc.
Victoria

Dave Goris
Vice-President
Golden-Crescent Alliance for
Minorities in Engineering
Plant Manager
Union Carbide
Seadrift

9:10 a.m. NACME SLIDE PRESENTATION,
"A Good Place to Start"

INTRODUCTION:

R. L. Hanen
Manager
Technical Recruiting and College Relations
Dow Chemical, U.S.A.
Director, TAME, Inc.

9:30 a.m. "WE HAVE STARTED"

Harris Marr
Treasurer
Golden-Crescent Alliance for
Minorities in Engineering
Manager
Southwestern Bell Telephone Co.
Victoria

9:40 a.m. SEMINAR PRESENTATION

"Innovations in Pre-College Curriculum:
Science, Mathematics and Communications"

Susan Scalfani
Assistant Director, PROMES
High School for Engineering Professions
Houston Independent School District

10:30 a.m. COFFEE

10:45 a.m. PANEL PRESENTATION
"After Pre-College: What???"

MODERATOR:

J. Kirk Nesbitt
Curriculum Director
Victoria CISD

PANEL:

Debbie Jackson
University of Houston
Houston

Dr. R. N. Noisette
Coordinator of NACME Programs
E. I. du Pont de Nemours & Co., Inc.
Wilmington, Delaware

Larry Marshall
Associate Superintendent
Houston Independent School District
President
Texas Alliance for Minorities
in Engineering, Inc.

11:30 a.m. "OPPORTUNITIES IN ENGINEERING"
Dave Goris

12:00 NOON LUNCH — Holiday Inn Banquet Room

INTRODUCTION OF SPEAKER:

John S. Robottom
Executive Director
TAME, Inc.

SPEAKER:

Dr. J. Parker Lamb
Associate Dean for Academic Affairs
College of Engineering
University of Texas
Austin

GOLDEN CRESCENT SEMINAR

VICTORIA COUNTRY CLUB
April 7, 1978

RECEPTION

6:45-7:00 p.m.

BANQUET

7:00 p.m.

INVOCATION

The Reverend Donald Blavier
Trinity Episcopal Church
Victoria

INTRODUCTIONS

NATIONAL ADVISORY COUNCIL ON MINORITIES
IN ENGINEERING SLIDE PRESENTATION —
"A Good Place to Start"

Lawrence Marshall
Associate Superintendent
Houston Independent School District
President
Texas Alliance for Minorities in
Engineering, Inc.

INTRODUCTION OF SPEAKER

Peter M. Suarez
Manager, Equal Opportunity Programs
S.W. Region
IBM Corporation
Dallas

SPEAKER

John B. Coleman, M.D.
Board of Regents
Texas A&M Systems
Houston

PRESIDING

A. D. Cyphers
Plant Manager
E. I. du Pont de Nemours & Co., Inc.
Victoria
President
Golden-Crescent Alliance for
Minorities in Engineering

AGENDA

University of Texas at Arlington
Room 245 — Business Building

Ms. Barbara Coleman, Industrial Engineer,
Motorola, Inc.

8:00 a.m. Registration and Continental Breakfast

9:45 a.m. Questions & Answers

8:30 a.m. Welcome: Dr. Bill Baker, Vice-President for Academic Affairs, The University of Texas at Arlington

10:00 a.m. Coffee

8:35 a.m. "TAME, Inc. Its Purposes and Goals": Mr. Raymond F. Tickner, Exxon Company, USA, Chairman of the Board, TAME, Inc.

10:15 a.m. Panel: "Engineering and Pre-Engineering Resources in the Greater Fort Worth Region" Moderator, Mr. Robert M. McAbee, Assistant Superintendent, Fort Worth Independent School District

Panelists:

Dr. Floyd Cash, Chairman, Dept. of Electrical Engineering, UT-Arlington

Mr. Gary Smith, TCJC North Campus

Dr. James Bailey, Assistant Superintendent, FWISD

Mr. Troy Sparks, Assistant Superintendent, FWISD

8:40 a.m. "A Good Place to Start: Slide-Film Presentation Introduced by Mr. C. A. Reinke, Mobil Corporation, Board Member, TAME, Inc.

11:00 a.m. Questions & Answers

9:00 a.m. Panel: "The Role of Industry in Engineering Education" Moderator, Mr. Wes Brown, Project Engineer, Southwestern Bell Telephone Co., St. Louis, Missouri

Panelists:

Mr. Sam Jackson, Specialist Circuit Engineering, Southwestern Bell, Dallas

Mr. Richard Pacheco, Texas Electric Service, Fort Worth

Mr. Steven Powell, Jr., Field Investigation Engineer, Bell Helicopter/Textron

Mr. Esteban DeLeon, General Dynamics/ Fort Worth

11:15 a.m. "A New Approach to Pre-Engineering curriculum in the High Schools", Dr. Marian Visich, Professor of Engineering, State University of New York at Stony Brook

11:40 a.m. Luncheon—The Student Union: Principal Speaker: Dr. Wendell H. Nedderman, P.E., President, The University of Texas at Arlington

FRIDAY EVENING APRIL 14, 1978

Ramada Inn
Fort Worth

6:15 Reception and Cocktails, Chisholm Room

7:00 Dinner

Invocation—
The Reverend Nehemiah Davis

Welcome

Dr. Andrew E. Salis, Dean, College of University of Texas at Arlington

Dr. Joe B. Rushing, Chancellor, Tarrant County Junior College

Dr. Gerald Ward, Superintendent, Fort Worth Independent School District

7:45 "The Texas Alliance for Minorities in Engineering, Inc."

Mr. R. F. Tickner, P.E., Exxon Co., USA, Chairman of the Board, TAME, Inc.

7:50 "A Good Place to Start" Slide-tape presentation of the National Academy of Engineering—introduced by Mr. Lawrence Marshall; Associate Superintendent, Houston ISD; President, TAME, Inc.

8:15 Address

The Honorable Eddie Bernice Johnson, Principal Regional Official, Department of Health, Education, and Welfare



PRESIDING

MR. JOHN S. ROBOTOM
Executive Director, TAME, Inc.

FORT WORTH SYMPOSIUM

TAME Boosts Minority Students Into the Engineering Field

By Susan M. Ridgway

Photos by Susan Ridgway

More than 1.2 million of our nation's citizens are practicing engineers — a profession they find both psychologically and monetarily rewarding. And as our society becomes increasingly technological, it needs more, more and more engineers.

Not only is engineering valuable per se, but it has also become the pathway to leadership in the large national and multi-national corporations.

Although Blacks, Chicanos, Puerto Ricans and American Indians comprise approximately 17 percent of the United State's total population, they represent less than 3 percent of our nation's engineers. Thus, paradoxically, our country needs more engineers, but is not taking advantage of the engineering potential of its minority citizens.

Teresa (not her real name) is a student at an Austin high school. Her aptitude in math has been noticed by her math teacher and her counselor, who have suggested she consider an engineering career.

But Teresa is a Mexican-American. Because neither she nor her family know any engineers, she has no clear idea of what a career in engineering would mean to her. And she doesn't think she can afford to go to college anyway.

This, then, is the dilemma — how to break with patterns of the past and bring more minority citizens into engineering. Texas industry and education have united to launch a unique state-wide attack on the problem.

This unusual partnership is called Texas Alliance for Minorities in Engineering (TAME), and its executive director is John S. Robottom of the College of Engineering, The University of Texas at Austin.

The concept of TAME was born in 1975 at a workshop co-sponsored by UT and the Dallas County Community College District, with support from the Sloan Foundation. At that session, more than 100 workshop participants created a state-wide organization to bring together educators, industry representatives, foundations, minority communities, and students.

"The Austin Chapter of TAME was easiest to organize; there was the greatest professional commitment here. The heavy involvement of in-



An Austin TAME directors' meeting at IBM includes (left to right), Doug Lawrence (IBM), Leon Francisco (Texas Instruments), Rob Sanchez (Texas Instruments), Bill Gordon (Motorola), Leonardo de la Garza (Austin Community College), Chris Thomas (Pi Sigma Pi, UT), Porfirio Rios (Tracor), Mauro Reyna (AISD), Jim Archer (Austin Community College), Exalton Delco (Huston-Tillotson College), and Mike Christopher (Pi Sigma Pi, UT).

dustry is making TAME work," Robottom said.

Currently, Austin's TAME group boasts participants from all high schools, the AISD administration, Austin Community College, Huston-Tillotson College, the UT College of Engineering, UT minority engineering students, local engineering consultants, the City of Austin, and, importantly, four major Austin industries — IBM, Motorola, Texas Instruments and Tracor. Westinghouse and Alcoa also have been active with TAME.

All nine Austin high schools participate in the TAME program. IBM, Motorola, Texas Instruments and Tracor each act as sponsor for at least two high schools. Each high school has set up an action committee comprised of a representative from the sponsoring industry, math and science teachers, guidance counselor and principal or assistant principal.

Identifying the minority students with engineering potential is the first objective of the TAME action committee. According to Rob Sanchez, Austin TAME secretary and a marketing manager at Texas Instruments, approximately 300 Austin students have been identified.

Minority students with engineering potential are recognized in a variety of ways — good grades in math and science, teacher recommendations,

or if the student himself expresses special interest.

Even before school began in fall, 1977, the sponsoring companies hosted eight students during the summer. Instead of spending his or her time in the usual non-technical type of summer job, each student "shadowed" an engineer at work and gained valuable exposure to the profession.

According to Mauro Reyna, assistant superintendent of the AISD and vice chairman of Austin TAME, the program will be expanded this summer, which "shows that all our time and energy is paying off."

Doug Lawrence, personnel manager at IBM, is chairman of the Austin division of TAME. And he points out that Gus Garcia, then school board chairman, was one of the original organizers. Garcia was instrumental in establishing TAME with the AISD.

In order to inform more people about engineering opportunities, TAME recently has completed a videotape showing engineering activities and actual minority engineering students and graduates at work. The tape will be available statewide for use in schools and for parent groups. TAME wants to reach not only the minority student, but also his family.

During the '77-'78 school year, the

TAME action committees have been working with high schools, tailoring activities especially for their own students.

The activities can include "career days," special-interest clubs, special counseling and industry tours. Austin TAME members hope to expand the program to junior high schools.

In addition to identifying and encouraging high school students, Robottom provides information on scholarship funds to interested students. "Money is just not a problem" for the qualified minority student, Robottom said. The problem is getting this information to the high school student.

period — especially minority engineers."

TAME, though funded, does not depend on money for its effectiveness — it depends on people. Many people in Austin have been working toward this effectiveness, including those in the AISD, at UT and ACC and in Austin industry.

Adult participants are happy with the way the Austin TAME program is shaping up, but what about the minority high school students that TAME wants to reach? Are they being reached?

We talked to two Reagan High School students who had participated recently in a TAME-organized tour of Tracor. The students were Tony Maldonado, a junior and Gloria Crayton, a sophomore.

Although neither student has definitely decided on an engineering career, both said that the TAME program had helped to inform them about engineering. Tony admitted he had been worried about the financial part of going to college. On the Tracor tour, however, he found that engineering scholarship funds were available.

Both Gloria and Tony have an aptitude for math. Tony said that before touring Tracor, "I didn't think I could be an engineer. Now that I have seen all this, I think I have a better chance."

"Before seeing Tracor," said Gloria, "not many people knew what engineering really was. Then we were allowed to go and see what they did; people seemed to really like their jobs and be happy. It made me feel I wanted to work there, too."

TAME is an Austin partnership that is working to help solve two national problems — tapping the unused but valuable resource of minority engineering potential and opening up engineering and leadership positions to minority citizens.

And if the TAME enthusiasm and determination plus favorable student response are any indication, it's a partnership that is headed for success. □



Austin TAME officers are (left to right) Vice Chairman Mauro Reyna (Assistant Superintendent, AISD); Secretary Rob Sanchez (Manager of Network and Financial Marketing, Texas Instruments); and Chairman Doug Lawrence (Personnel Manager, IBM). Not pictured is Treasurer Jack Robottom (Director of Equal Opportunities in Engineering, UT).

The second major goal of Austin TAME is to ease the transition of the minority student to college, cutting the minority drop-out rate. Austin is lucky to have Austin Community College helping in this transition stage.

If a student wants to enter UT's College of Engineering, but didn't realize that soon enough to properly prepare in high school, ACC offers courses to fill in the gaps. The student then can go from ACC into UT engineering.

Jack Robottom, in addition to being the statewide executive director of TAME, is treasurer of the Austin chapter and the director of the Equal Opportunities in Engineering Program at UT. His office works with several aspects of the problem.

Once the minority student does enter the UT engineering program, he may need special counseling and tutoring. The EOE office helps here, as does Pi Sigma Pi, the minority engineering club. Pi was established at UT before TAME was formed, but the club shares the same concerns and now works with TAME. In fact, Pi member Chris Thomas, a senior electrical engineering student, provides formal liaison by serving on the TAME board of directors.

What part does TAME then need to play in helping the minority engineering graduate find a job?

None, according to Robottom and IBM's Lawrence. Lawrence says the graduate is "sought after, a very hot commodity. Engineers are in demand,

GOLDEN-CRESCENT ALLIANCE FOR MINORITIES IN ENGINEERING
PARENT-STUDENT ORIENTATION
MAY 30, 1978 - 7 P.M. - VOCATIONAL SCHOOL

WELCOME - PURPOSE - INTRODUCTIONS

A. D. Cyphers

President, Golden-Crescent Alliance for Minorities in Engineering
Plant Manager, Victoria Plant, E. I. du Pont de Nemours & Co.

INVOCATION

Harold Cade

Principal, Patti Welder Intermediate School

BANQUET

NATIONAL ADVISORY COUNCIL ON MINORITIES IN ENGINEERING SLIDE
PRESENTATION - "A GOOD PLACE TO START"

"ENGINEERING CAREERS - A LADDER TO SUCCESS"

Judy Wyatt - Du Pont Summer Pre-Engineering

Bernard Barela - Du Pont Summer Pre-Engineering

Sylvia Vasquez - Du Pont Co-Op

David Donald - Du Pont Division Engineer

THE GCAME PROGRAM

Dr. Roger Gee

Superintendent, Victoria C.I.S.D.

PARENTS ROLE IN GCAME

Harris Marr

Treasurer, Golden-Crescent Alliance for Minorities in Engineering
Manager, Southwestern Bell Telephone Co.

"MINORITY ENGINEERING: TODAY AND TOMORROW"

A. D. Cyphers

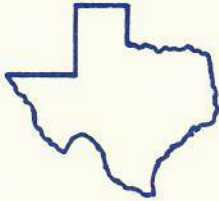
"KEY TO A SUCCESSFUL FUTURE"

Du Pont

Southwestern Bell

Union Carbide

APPENDIX C



TEXAS ALLIANCE FOR MINORITIES IN ENGINEERING, INC.

P.O. BOX 4572

AUSTIN, TEXAS 78765

(512) 471-5953
471-1916

MEMO TO: Mr. Edwin Murdoch, Chairman, El Paso AME
FROM: Executive Director
SUBJECT: Austin AME Industry-University-High School Program
DATE: April 13, 1978

After reviewing our files, I find no concise document which explains the Austin AME Program, so let me undertake to do it for the El Paso group.

At our initial organizational meeting, an associate superintendent of the AISD described the locations, facilities and ethnic ratios in the nine Austin high schools. Some were heavily Black, some heavily Hispanic, some more or less evenly attended and two were, effectively, all White.

It was decided, since all high schools had some minority students, all would be involved. It was further agreed by the (then) four industry participants (Tracor, IBM, TI and Motorola) that each company would "adopt" the two high schools nearest to them geographically (IBM took three schools).

At the suggestion of the school administrators, (we had already appeared before the Austin School Board, explained our purpose and received their support) we created in each high school a committee composed of one assistant principal, a math teacher, a science teacher, a counselor and 3-5 young minority engineers from the sponsor company. We found it useful to pay a personal call on each principal prior to organizing these committees.

The math and science teachers have identified about 250 minority students in the nine high schools whose abilities and motivation predict success in a technical career. Our engineers have met with all of these students, all have toured the host engineering installation at least once, and these companies have, together with the City of Austin, come up with over 100 engineering-related summer jobs. In addition TAME plans to sponsor up to 30 students, juniors in high school, who wish to take math and physics courses this summer at Austin Community College.

The University is hosting on April 15, a day-long exposition, luncheon and tour of laboratories for these high school students-a practice which UTEP also follows. We use our minority engineering students to organize and host this program.

We in Austin had no real examples to follow when we commenced last May. Very probably this was a good thing for us and the El Paso Alliance will very probably end up doing its thing in ways unique to it.

OFFICERS

*R. F. Tickner, Chairman
EXXON Company, USA
L. Marshall, President
Houston Independent
School District*

*P. M. Suarez, Vice President
IBM Corporation
R. L. Hansen, Treasurer
Dow Chemical, USA*

*J. S. Robottom, Secretary
The University of Texas
at Austin*

APPENDIX D

EL PASO ALLIANCE
FOR
MINORITIES IN ENGINEERING

Mr. Edwin Murdoch, Chairman
Mountain Bell Telephone Co.
L 48 500 Texas Street
El Paso, Texas 79901
915/452-4341

Mrs. Evelyn Bell
Ysleta ISD
8445 Valdespino
El Paso, Texas 79907
915/859-7971

Mr. Curtis Conrad
Texaco, Inc.
6500 Trowbridge
El Paso, Texas 79905
915/772-1433

Mr. Gus Gonzales
Facilities & Engineering
Fort Bliss, Texas 79916
915/568-6200

Mr. Wilson Knapp
Educational Service Center
Region XIX
P. O. Box 10716
El Paso, Texas 79997
915/799-3737

Mr. Hal Logan
Branch Manager
IBM Corporation
4191 N. Mesa
El Paso, Texas 79912
915/533-4981

Mr. Robert Peinado, PE
Peinado, Peinado & Navarro
Consulting Structural Engineers
1444 Montana
El Paso, Texas 79902
915/448-4468, 448-4487

Dr. Jack Smith
Dean, College of Engineering
University of Texas at El Paso
El Paso, Texas 79968
915/747-5460

Mr. Ken Thomas
El Paso ISD
6531 Boeing
El Paso, Texas 79925
915/779-4050

Mr. Oscar Valadez
El Paso Community College
432 Frederick
El Paso, Texas 79905
915/778-7117

Mr. George Yelderman
General Electric Co.
215 N. Stanton, Suite 611
El Paso, Texas 79901
915/542-1803

ENGINEERING COLLEGES OF TEXAS

FRESHMEN (MINORITY) ENROLLMENT

FALL, 1976 and FALL, 1977

		TOTAL	MINORITIES	NATIVE AMERICAN	BLACK	HISPANIC	NET CHANGE
U. of Houston	1977	498	103	3	59	41	-38
	1976	406	141	3	77	61	
Lamar U.	1977	372	38		34	4	+18
	1976	340	20		13	7	
Letourneau Coll.	1977	62	3			3	+ 3
	1976	63	0				
Prairie View A&M	1977	260	260		260		+60
	1976	200	200		200		
Rice U.	1977	186	23	1	9	13	+ 1
	1976	228	22		11	11	
St. Mary's	1977	50(est)	15			15	+ 3
	1976	42	12			12	
SMU	1977	201	41	2	14	25	
	1976	(not available)					
Texas A&I	1977	191	66		9	57	+11
	1976	188	55		1	54	
Texas A&M	1977	1,766	51	1	4	46	+19
	1976	1,608	32	5	4	13	
UT-Arlington	1977	488	26	2	14	10	- 3
	1976	482	29	1	18	10	
UT-Austin	1977	1,108	182	2	45	135	+16
	1976	1,100	166	1	53	112	
UT-El Paso	1977	512	244		4	240	+55
	1976	480	186		1	185	
Texas Tech	1977	933	35		8	27	+ 4
	1976	525	29	3	11	15	
Trinity U.	1977	57	8			8	n/c
	1976	40	8		3	5	
TOTAL INCREASE (September 1, 1976-September 1, 1977)							+149



DOW CHEMICAL U.S.A.

TEXAS DIVISION
FREEPORT, TEXAS 77541

November 25, 1977

TO: BOARD - TAME
FROM: R. L. HANSEN - TREASURER - CHAIRMAN
BUDGET COMMITTEE

The Budget Committee met on November 8 with all members present:
Jack Robottom, C. A. Rodenberger; Charles Reinke and Dick Hansen.

The following are the committees budget recommendations:

BUDGET, September 1, 1977, August 31, 1978

1. Salaries & Wagers		
a. Director 50%	14160	
b. Secretary 50%	3000	
c. Technical Assistant	3000	
		20160
2. Film Production, Copying & Distribution		3500
3. Counselor Manual, Printing & Binders		1000
4. Travel		
a. Director - 15 trips in state @\$100	1500	
b. Board & Invited Speakers 10 trips @ \$200	2000	
		3500
5. Organizing Seminars - Corpus Christi, Dallas, Beaumont, El Paso, Texarkans		12000
6. Printing - Newsletter		800
7. Miscellaneous Supplies, Equipment and Postage		1000
8. Regional Alliance Expenses		5000
TOTAL BUDGETED EXPENSE		\$46,960

R L Hansen

TEXAS ALLIANCE FOR MINORITIES IN ENGINEERING

P.O. Box 4572 Austin, Texas 78765