

FUNDING PRIORITIES FOR ENGINEERING EDUCATION

Kathleen W. Buechel, Vice President

Alcoa Foundation, Pittsburgh, Pennsylvania

(The segments in italics are annotations and serve as the bridges between the overheads in the presentation)

This presentation will provide:

- 1. An overview of Alcoa Foundation**
- 2. A portrait of our educational funding**
- 3. A sketch of emerging Alcoa Foundation trends**
 - a. University relations -- our educational factors**
 - b. Women in engineering initiatives**
 - c. Education in general**

ALCOA FOUNDATION

SLIDE 1

Alcoa Foundation's mission is to enhance and strengthen educational opportunities, health and medical services, cultural endeavors and the overall quality of life for people primarily in communities where Aluminum Company of America, "Alcoa," operates facilities. In this way, Alcoa offers a community more than an economic presence.

SLIDE 2

Separate non-profit corporation -- incorporated in 1952

Largest asset-based corporate foundation in U. S.

- **Assets of \$268 million**
- **Grants only from earnings on assets -- not Alcoa profits**

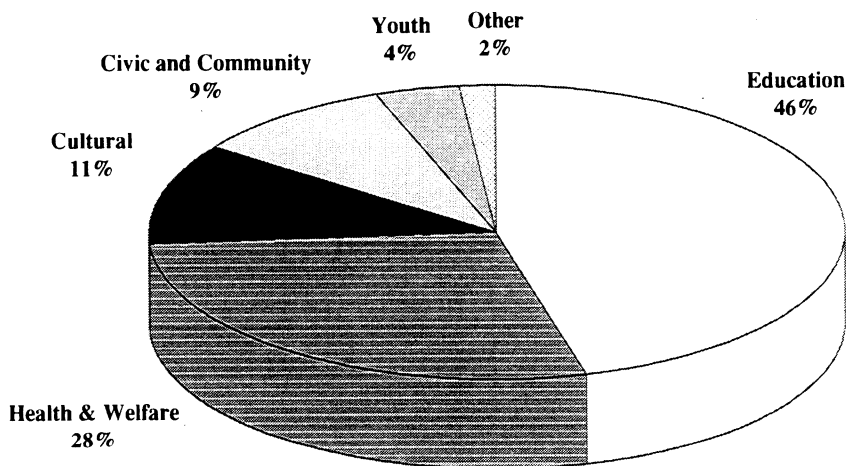
Granted \$12.1 million in 1992

Alcoa Foundation

SLIDE 3

1,350 new grants
2,550 paid grants/gifts

1992 Alcoa Foundation Grants \$12.1 million



This chart demonstrates our diverse and varied portfolio with international and domestic grants. It also represents the significant demands on Foundation resources.

ALCOA FOUNDATION

SLIDE 4

Education is largest single grant category -- 46% of grant dollars

\$5.6 million

- **\$1.9 million for non-discretionary programs**
 - **Employee Gift Matching -- 2 for 1 match; \$1.5 million**
 - **Sons & Daughters Scholarships**
- **\$3.7 million for Alcoa location and direct requests**
 - **65% recommended by Alcoa locations**

Prefer to receive requests through field locations to forge linkages

Board meets monthly; February devoted to education -- 400+ grants approved

SLIDE 5

Education Grants in 1992:

- **77% to higher education**
- **38% targeted for minorities, women**
- **38%, or \$1.38 million, aided engineering**
- **52% funded minority/women engineers**

Scholarships -- at 81 institutions -- roughly 238 scholarships

Our grants open doors, build relationships, enhance pipeline, and reward excellence through many mechanisms:

Student support -- scholarships, chapters -- SWE

Faculty support -- ATC research, faculty excellence/incentive or mini grants

Curriculum, program and skills development

Capital and equipment

National associations -- NACME, WEPAN, NAMEPA

Pre-college programs

ALCOA FOUNDATION

SLIDE 6

Educational Factors -- set context for university relationships

1. **Academic Excellence**
2. **Potential Source of Females & Minorities**
3. **Recent Hiring Trends -- Light Metals Industry**
4. **Training Ground for Current Alcoans**
5. **Proximity**
6. **Historic and Current Linkages**
7. **Alcoa Technical Center R & D Support**
8. **Past Alcoa Foundation Support**

Launched educational factors 24 months ago

Now funding 130 schools; down from 160

Explicitly state what Foundation values in higher education

Have metrics for each factor

SLIDE 7

Educational Factors

Enhancing the nation's talent pool is the goal

1. **Academic Excellence**
Engineering disciplines: Aerospace, Ceramic, Chemical, Electrical, Industrial, Manufacturing, Materials/Metallurgical, Mechanical, Process, Systems
Applied Math/Statistics/Operations Research
MIS, Computer Science/Engineering
2. **Potential Source of Females & Minorities -- recognizes institutions**
graduating large numbers of women in disciplines above
Supports diversity and institutions preparing 21st century workforce
Recognizes disciplines above -- framework for our support of women in engineering

ALCOA FOUNDATION

SLIDE 8

Snapshot -- Women in Engineering Support

Pre-College

Experiential

- Summer camps/introductions
- Mentoring
- Linkage programs -- *leverage multiple approaches in one program*
- National Education Goals -- math and science initiatives

College/Post-Graduate

- Merit Awards/Scholarships
- Program support -- *Women in Engineering Programs*
- Student chapters
- Research fellowships

A snapshot because this represents an evolving program area.

SLIDE 9

Other Educational Trends -- *Grew from a conviction that we need to work earlier in educational and life experiences to plant seeds and skills necessary for personal fulfillment and participation in technologies of tomorrow.*

- **Earlier intervention/prevention**
- **National Education Goals**
Emphasizing:
 - **School Readiness**
 - **Math & Science**
- **Fueling the pipeline -- women and minorities**

This is work in progress.

The Foundation is open to new ideas; committed to collaboration.

Can't start too early or too humbly in a student's career to enhance the nation's talent pool.