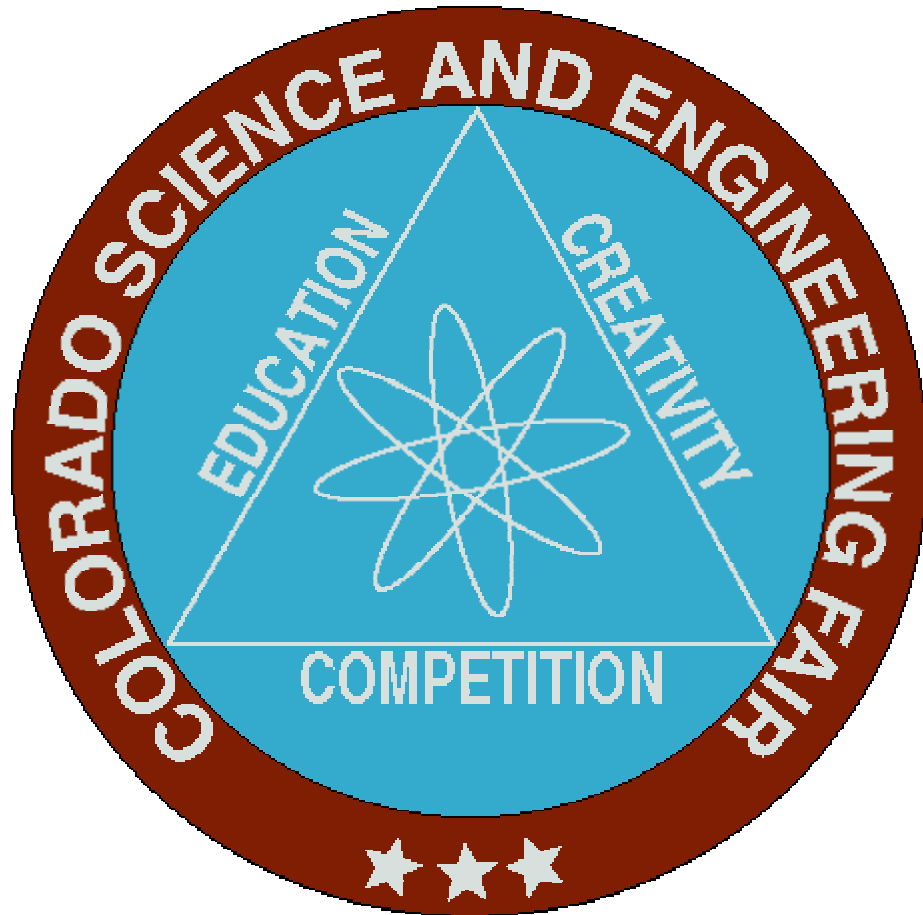


# 1996 Annual Report



September 14, 1996

## 1996 Annual Report

*From start to finish, and at all levels of participation, the science fair experience is one not only of competition, but also of camaraderie, creativity, cooperation, and education. This is the essence of the logo for the Colorado Science and Engineering Fair.*

Colorado Science and Engineering Fair (formerly Colorado State Science Fair) is the state level event in a year-long process of local and regional science fairs. More than two thousand students from all over the state participated in the statewide science fair program. State winners were chosen from among 234 exhibits presented by 254 finalists from 12 regions within the state. More than 130 professional scientists, engineers and mathematicians interviewed the students and evaluated their projects before selecting the Grand Awards winners. In addition, there are currently over 55 business, professional societies, and government agencies that provide over 150 of their own representatives to judge exhibits based on their own criteria. They judge the student finalists and conferred Special Awards, which represented an aspect of the bestowing organization. These included college scholarships, offers of summer employment, field trips, cash, savings bonds, and calculators. Over 1000 people attended the Awards Ceremony this year.

In addition to getting the rare opportunity to speak with working scientists, Colorado Science and Engineering Fair student participants compete for awards in a number of categories: Botany, Earth & Environmental Sciences, Engineering, Health & Behavioral Sciences, Mathematics & Computer Sciences, Physical Sciences, and Zoology. Recognition for outstanding exhibits in each of these categories as well as an award for technical writing are given to students at the Colorado Science and Engineering Fair Awards Ceremony. The top two Senior Division winners at the state level are awarded trips to the International Science and Engineering Fair. In 1996, the International Science and Engineering Fair was held in Tucson, Arizona where Colorado students competed with their peers from the United States and several other countries.

Many educational experiences are made available to students who participant in the CSEF. Tours of university and local corporate research facilities provide opportunities for students and their families to see research in action. The judges' interviews and the opening night Food, Fun and Friendship Mixer after judging allow the students to interact with professional scientists and engineers and with each other. Many students have said that having the chance to meet and speak with their peers about their science projects is the most beneficial aspect of the Colorado Science and Engineering Fair.

### 1996 Colorado Science and Engineering Fair

The 41<sup>st</sup> Colorado Science and Engineering Fair was held at the Lory Student Center on the Colorado State University campus on April 11 - 13, 1996. Two hundred fifty-four students participated in this three day event and competed for honors in their respective categories. Aaron Oakley from Cherry Creek high School in Denver, took first place this year in the All Fair competition. His project was *Artificial Neural Networks for Speech Recognition*. He received an expense paid trip to the International Science and Engineering Fair. Runner-up in the All Fair competition was Cameron Holm from Monte Vista High School in Monte Vista for the project *Dormancy in Microtubers: Interaction by Gibberellic Acid – Phase III*. He also received a trip to the International Science and Engineering Fair. Third place in the Senior Division was Jessica Jordet from Brush High School in Brush for the project *Getting the Lead Out: An Investigation of Pb+2 Binding by Saccharomyces cerevisiae*.

The top winner of the Junior Division was Will Helling from Weld Central Jr/Sr High School in Greeley for the project *Programming in Hypercard: Knowledge Bowl*. The runner-up in the Junior Division was Shalini Low-Nam from Baseline Middle School in Boulder for the project *Environmental Alert! How*

*Good is Phosphate in Your Detergent?* Third best in the Junior Division was Dalyn Cook from Palmer High School in Colorado Springs for the project *The Hand'some Choice*.

This year's team winners in the Senior Division were Tiffany Hall, Arghavan Rahimpour, and Maggie Stanislawski from Palmer High School in Colorado Springs for the project *A Radical Idea: Does Ascorbic Acid Act as an Antioxidant by Reducing Free Radical Mutations in E. Coli?* They received an expense paid trip to the International Science and Engineering Fair. The winners in the Junior Division were Tegan Brown and Ruthie Martin from Delores Middle School in Delores for the project *The Comparisons of Pelleted Fuel*.

### **1996 International Science and Engineering Fair**

CSEF winners did very well at the International Science and Engineering Fair (ISEF) which is the culmination of each year's science fair experience. The 46<sup>th</sup> ISEF was held this year from May 5 – 12<sup>th</sup> in Tucson, Arizona. In Tucson, more than 1000 finalists represented over 40 countries from around the globe. This was the largest ISEF ever.

Colorado's top CSEF winners, Aaron Oakley (from Englewood) and Cameron Holm (from Monte Vista), and the top team of Maggie Stanislawski, Tiffany Hall, and Arghavan Rahimpour (from Colorado Springs) represented the CSEF. In addition, the CSEF top Junior Division winner, Will Helling attended the ISEF as a student observer. CSEF winner Aaron Oakley won an \$8,000 scholarship from the Navy to the college of his choice.

### **Organization**

The Colorado Science and Engineering Fair would not be possible without the dedication and tremendous efforts of many committed individuals and organizations including school districts, universities, government agencies, corporations, and professional associations. These groups sustain the CSEF through financial and resource support, special awards and most importantly, through providing dedicated volunteers to serve on the fair's many working committees.

It is no exaggeration to say that the state science fair volunteers indeed make the fair possible each year by serving on the Advisory Council and its various committees. They and others also serve as judges for the Colorado Science and Engineering Fair. Prior to the statewide event, thirteen regional science fairs and a great number of local school science fairs are conducted throughout the state; each of these fairs is supported and promoted by hardworking and dedicated educators at the local level. Before a student's exhibit even makes it to a local fair, it requires the encouragement and support from individual teachers, sponsors, and parents to help students see their projects through from inception to finished exhibit. The Colorado Science and Engineering Fair is a product of all of these people.

The success of each year's fair is directly dependent upon the support of public and private organizations, government agencies, school districts, universities, and the efforts and coordination of more than three hundred dedicated volunteers. To organize and stage the fair each year requires a great effort, but it also offers many personal challenges and rewards. To witness the level of achievement, pride and excitement of these bright young people in their scientific endeavors is one of the rewards that all of the volunteers share, and it also speaks to the high level of students' aptitude and enthusiasm for science in Colorado.

Colorado Science and Engineering Fair Sponsors provide the majority of the financial and resource support. In addition, each sponsor also provides two volunteers to serve on the CSSF, Inc. Board of Directors.

### **Gold Sponsors**

(Providing \$1,000 or more in support for the CSEF.)

Lockheed Martin Astronautics  
US West Advanced Technologies  
Old Chicago Restaurant  
Anheuser-Busch, Inc.  
Alcoa Foundation

### **Sponsors**

(Providing \$500 or more in support for the CSEF.)

A Foundation for Basics	Norgen
American Cancer Society	OEA, Inc.
Colorado Dental Association	Public Service Company of Colorado
Colorado Engineering Council	Raytheon Engineering
Colorado Medical Society	San Luis Valley Regional Science Fair
Colorado State University, CNS	StorageTek Foundation
Eastman Kodak Company	The Gates Corporation
EG&G Rocky Flats Plant	US Department of Commerce
Hach Company	NTIA, NOAA, NIST
Hewlett-Packard Company	

In addition, generous financial support has been provided by these firms, organizations, and individuals.

### **Financial Contributors**

(Providing up to \$500 in support for the CSEF.)

Advanced Energy  
Applied Hydrology Association, Inc.  
ASM International – Rocky Mountain Chapter  
Ball Aerospace Technology Corp  
Blackfox Technology  
Dan & Carol Blake  
Directed Energy, Inc.  
DJ's Sport Shoppe  
Loral Command and Control Systems  
Starsys Research  
Woodward-Clyde Consultants  
XEL Communications

Many Federal employees contribute monthly through the Combined Federal Campaign.

## Board of Directors

President: Sue Refner  
Vice President: Bob Morrow  
Secretary: Dave Lovering  
Treasurer: Jim Sites  
Fair Director: Christal McDougall  
CSEF Coordinator: Kate Taylor

A Foundation for Basics – Ruth Taylor, Ken Yoder  
Alcoa Foundation - vacant  
American Cancer Society – Richard Shipman, Jennifer Scott-Nazaryk  
Anheuser-Busch, Inc. – Skip Beck  
Colorado Dental Association – Robert Morrow, Gene Peterson  
Colorado Engineering Council – Gina Holland, Paul Cheng  
Colorado Medical Society – William Pierson  
Colorado State University – Tom Sneider, Jim Sites  
Eastman Kodak Company – Joe Eddins, Sue Refner  
Gates Corporation – Martha Hoff, Lewis Keim  
Hach Company – Cindee Arduino  
Hewlett-Packard Company – John Jacobi, Kristin Howerton  
Lockheed Martin Astronautics – Joy Knight, Paul Cheng  
National Renewable Energy Lab – Dan Blake, Gloria Kratz  
Norgren - vacant  
Old Chicago Restaurant – Brooke Robertson  
Raytheon Engineers and Constructors – H. J. Bell, R. F. Brody  
San Luis Valley Regional Science Fair – Jim Krugman, Harvey Teyler  
StorageTek Foundation – vacant  
Symbios Logic – vacant  
US Department of Commerce/NIST – John Lehman, Dave Lovering, Carrie Shaw  
US Department of Commerce/NOAA – Dave Clark, Al Bedard  
US Department of Commerce/NTIA – vacant  
US West Technologies – Lalana Sperline

## Working Committees

Fair Director – Christal McDougall

CSEF Coordinator – Kate Taylor

Awards Ceremony – Ken Yoder, Gina Holland, Beverly Meier, Lalana Sperline, Kate Taylor, Sue Refner

Display & Safety – Elemer Bernath, Dan Van Gorp, Don Gabriel, Don Hurt, Nancy Gettman, Rich Shipman, Paul Josephson, Leo Armstrong, Al Bedard

Facilities/Monitors – Tom Sneider, Ruth Taylor, Paul Josephson, Lucy Adams, Sue Refner, Harvey Teyler, Lalana Sperline, Jim Sites

Finance – Dan Blake, Carl Edstrom, Kristin Howerton, Christal McDougall

Photography – Joe Eddins, Ray Alvarado, Ed Lobato, Jessie Ramirez, Larry Jakel, Natalie Sexton, Carrie Shaw, Eric Sims

Publicity – Dave Clark, John Lehman, Al Bedard, Carrie Shaw

Registration – Kate Taylor, Ruth Taylor, Carl Edstrom, Beverly Meier, Lucy Adams, Sue Refner, Harry Wolf

Regular Judging – Gina Holland, Carl Edstrom, Paul Cheng, Russell Stoner

Room Set-Up – Jim Sites, Ken Yoder, Tom Gorell, John Lehman, Elemer Bernath, Paul Josephson, Dan Van Gorp, Tony Gorsted, Tom Sneider, Christal McDougall

Scientific Review – Elemer Bernath, Charles Johnson, Steve Iona, Connie Vader, Christal McDougall

Special Awards Judging – Ken Yoder, Beverly Meier, Kate Taylor, Gina Holland

Student Activities/Speaker – Lucy Adams, John Lehman, Al Bedard, Christal McDougall

Tours – Lynn Butler, Rich Shipman, Kristin Howerton

## Past Colorado Science and Engineering Fair Directors

Charles Bragaw	1956-1967
Calvin Fisher	1968-1974
Sam Shushan	1975-1977
Gordon Moore	1978
Russell B. Stoner	1979-1981
Virgil Sandborn	1981-1983
James Sites	1984-1985
Llyod Walker	1986-1988
Connie Vader-Lindholm	1989-1990
Lynn Butler	1991
Kate Taylor	1992-1994
Christal McDougall	1995-1996

## Advisory Council Members At Large

Leo Armstrong  
Bill Brinton  
Lynn Butler\*  
Carl Edstrom  
Nancy Gettman  
Jay Hackett  
Charles Johnson  
Paul Josephson

Beverly Meier  
James Stevens  
W. Gerald Rainer  
Kevin Sessa  
Doug Steward  
Russell Stoner  
Connie Vader  
Dan Van Gorp

CSEF Advisory Council also includes all Regional Fair Directors and the CSSF, Inc. Board of Directors.

## Regional Science Fairs

### Boulder Valley

Karen Hyden, Director

### Denver Metro

Herschel Neumann and Steve Iona, Director

### East Central

Harry Wolf and Marguerite Yowell, Co-Directors

### Longs Peak

Terry Scott and Courtney Willis, Co-Directors

### Morgan/Washington Bi-County

Elemer Bernath & Don Gabriel, Co-Directors

### Northeast Colorado

Donald Hurt, Director

### Pikes Peak

Georgia Matteson, Director

### San Juan Valley

Martha Iverson, Director

### San Luis Valley

Lucy Adams, Director

### Southeast Colorado

Robert Williams, Director

### Spanish Peaks

Usha Herbert, Director

### Western Colorado

Forbes Davidson and Rob Robison, Co-Directors

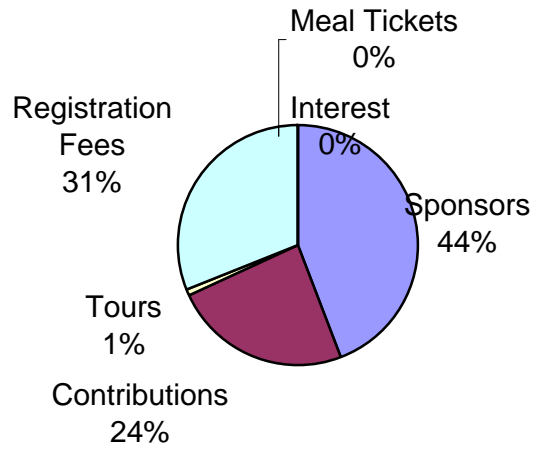
**Colorado State Science Fair, Inc.**

<b>INCOME</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
Sponsors	\$8,000	\$7,850	\$9,500	\$12,250	\$9,000
Contributions	\$1,530	\$2,250	\$2,200	\$2,544	\$4,869
Tours	\$196	\$107	\$1,302	\$316	\$149
Registration Fees	\$4,334	\$4,928	\$5,800	\$5,925	\$6,325
Meal Tickets	\$3,456	\$3,423	\$3,266	\$4,238	\$0
Interest	<u>\$154</u>	<u>\$134</u>	<u>\$104</u>	<u>\$58</u>	<u>\$0</u>
	\$17,670	\$18,692	\$23,172	\$25,311	\$20,343
<b>EXPENSES</b>					
Student Awards	\$2,791	\$2,946	\$3,044	\$4,987	\$5,644
Travel to ISEF	\$3,182	\$2,708	\$2,761	\$2,926	\$3,369
ISEF Affiliation	\$500	\$500	\$500	\$500	\$500
Meals	\$6,274	\$8,110	\$8,656	\$7,067	\$4,213
Coordinator	\$1,250	\$1,750	\$3,600	\$4,200	\$6,300
Printing	\$1,463	\$1,646	\$2,930	\$1,226	\$1,635
Busses/Tours	\$0	\$0	\$2,300	\$0	\$422
Supplies, Misc.	<u>\$1,455</u>	<u>\$1,420</u>	<u>\$1,506</u>	<u>\$1,836</u>	<u>\$1,981</u>
	\$16,915	\$19,080	\$25,297	\$22,745	\$23,564
<b>ASSETS</b>					
Checking	\$848	\$324	\$1,152	\$2,957	\$772
Savings	<u>\$2,934</u>	<u>\$3,068</u>	<u>\$124</u>	<u>\$905</u>	<u>\$0</u>
	\$3,782	\$3,392	\$1,276	\$3,862	\$772
<b>PARTICIPANTS</b>	197	224	228	238	253



# 1995 Financial Profile

## Income for 1996



## Expenses for 1996

