



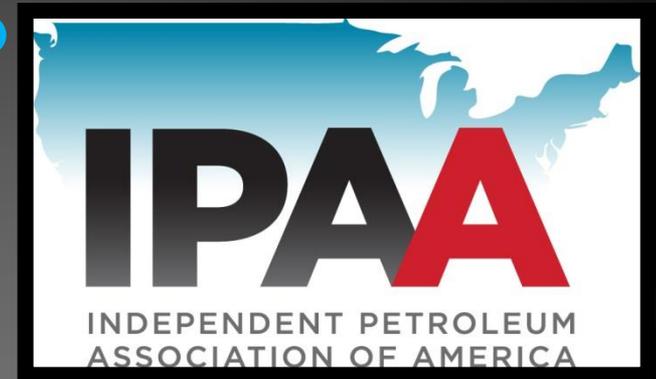
IPAA/PESA
PETROLEUM ACADEMIES

**Independent Petroleum
Association of America**

**Petroleum Equipment
Suppliers Association**

Who is IPAA?

Non-profit organization based in Washington, DC.



IPAA was founded in **1929**. Membership includes over **10,000** energy companies & professional organizations in **46** states. These members are responsible for drilling **95%** the nation's onshore and offshore oil and natural gas wells.

IPAA has a grassroots network of **60,000+** supporters of industry activities.

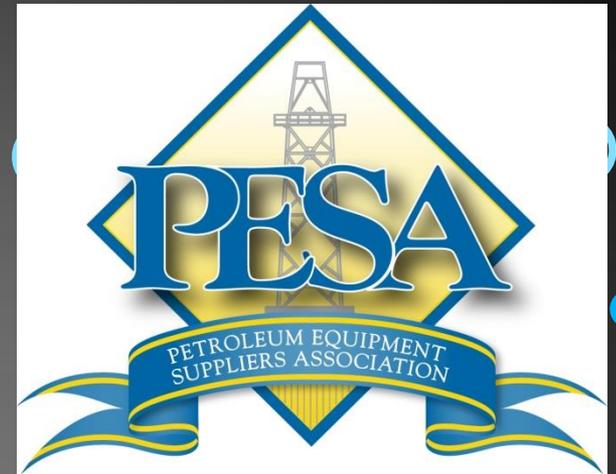
Purpose:

To provide a voice for the energy industry to US Congress.

History of commitment to funding education initiatives.

Who is PESA?

Non-profit organization based in Houston, Texas.



PESA was founded in **1933**. Membership is comprised of 200+ companies serving the drilling and production segments of the petroleum industry.

Types of members include:

- Equipment Manufacturers
- Wellsite Service Companies
- Supply Companies

Purpose: To represent the interests of member companies serving the drilling and production segments of the petroleum industry.

Mission of IPAA / PESA Education Center

To provide students an advanced multi-disciplinary learning experience needed to secure successful careers in the energy industry, focusing on:

- Science
- Math
- Engineering
- Geosciences
- Global energy management
- Emerging technology concepts

Educating the Next Generation of Energy Professionals



**Southwest High
School**

Educating the Next Generation of Energy Professionals



**Milby High
School**

Educating the Next Generation of Energy Professionals

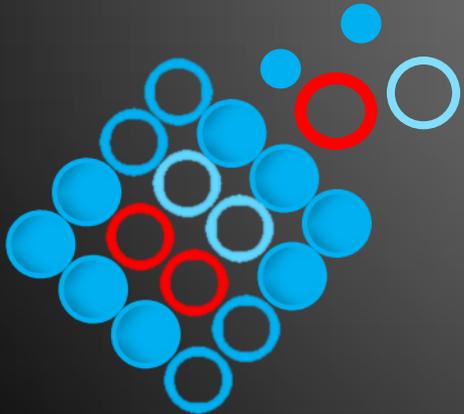


**Westside High
School**

Educating the Next Generation of Energy Professionals



**Young Women's
College Preparatory
Academy**



Educating the Next Generation of Energy Professionals



**Energy Institute
High School**

Key Program Components

Teacher Training	Inter-Disciplinary Classroom Integration	Research Field Trips	Guest Speakers	Competitions	Externships
<p>Rice University UT Fundamentals of Petroleum CO School of Mines UH Global Energy Mgt, Economics, Geopolitics Stipend Annual Teacher Roundtable Annual Summer Teacher Training</p>	<p>GPA Minimum Cross-curricula advanced courses Professional Development Cultural Diversity Project Lead the Way Engineering Curriculum/STEM Academy Real-time Software Energy Club Community Service Project</p>	<p>Company Visits Universities Offshore Energy Center Museums</p>	<p>Young and Tenured Industry Professionals Industry Technical Topics Career Insights Topics</p>	<p>Speech & Debate PPT/Panel Competition PetroChallenge Computer Simulation Competition World Affairs Council Shell EcoMarathon Competition Viva Technology Competition</p>	<p>Job Shadowing 3 Weeks Duration \$1,000 Scholarships Summer before the Senior Year</p>

IPAA President **Barry Russell** &
Houston Mayor **Bill White**
Opening of First Petroleum Academy, 2008



IPAA/PESA Education Center AWARDS

Barbara & George Bush
Excellence in Education
Two Time Recipient

Mayor's Proud Partner Award
Milby Beautification Project, 2007

Houston Independent School District
Volunteers In Public Schools
2007, 2008, 2009, 2010
Partner of the Year, 2013
Inductee, Partnership Hall of Fame, 2013

Texas Association of Partners in Education
Best Strategic Partnership, 2009

Fort Worth ISD
Finalist, Partner of the Year, 2012

How Organizations Contribute

Guest Speakers

Field Trips

Financial Support

Curriculum Materials

Software

Teacher Training

Student Competitions

Externship Program

Student Scholarships for College

GUEST SPEAKERS

- Apache
- American Society of Training & Development
- Baker Hughes
- Barnett Shale Energy Education Council
- Chevron
- Cobalt International
- Corridor & Associates
- ExxonMobil
- Flex Pipe Systems
- Halliburton
- Houston Geological Society
- Kosmos Energy
- Limerock Partners
- Marathon Oil
- NASA
- Nat. Ocean Industries Assn.
- National Oilwell Varco
- Pedernales Energy
- Rice University
- Rockwater Energy
- Schlumberger
- Seely Oil
- Shell
- Southwestern Energy
- Texas Petroleum
- XTO

FIELD TRIPS

- 3D Camp
- Baker Hughes
- Chesapeake
- Consumer Energy Alliance
- Core Labs
- ExxonMobil
- Fort Worth Science Museum Energy Blast
- Gearhart Companies
- Halliburton
- Houston Museum of Natural Science, Weiss Energy Hall
- Houston/Galveston Energy Tour
- Inter-Academy Speaking Competition
- Marathon Oil
- National Oilwell Varco
- Ocean Star Museum
- Offshore Technology Conference
- OTC Crawfish Boil
- Quicksilver Rig Tour
- Senior Geology Trip
- Shell EcoMarathon
- Six Flags Physics Day
- Texas Christian University Energy Department/Fossil Dig
- Texas A&M University
- University of Houston
- University of Texas Tyler Summer Camp
- Weatherford
- Whiskey Bridge Geology
- Women's Global Leadership in Energy & Technology Conference

COMPETITIONS

- **Anadarko & Apache sponsored,** Inter-Academy Speaking Competition
- **Shell sponsored,** Viva Technology
- **IPAA/PESA sponsored,** Houston Art Car Parade
- **EP Energy & Shell sponsored,** PetroChallenge
- International PetroChallenge
- Shell EcoMarathon Car Competiton
- Engineering /Robotics Competitions
- World Affairs Council
- Energy City of the Future

CAMPS

Sponsored by Marathon, YWCPA students attend a multi-day camp at the University of Texas, Tyler exploring engineering and geoscience concepts and experiencing college life.

Sponsored by Core Labs, Westside students attend a two day geology field trip camp.

Sponsored by PEC Safety Management, incoming Westside freshmen students attend a campus-based day camp to introduce them to their Academy.

ADDITIONALLY, *Curriculum Support . . .*

- **Schlumberger** - industry software
- **PESA** - Mobile Oilfield Learning Unit
- **John Cape** - author of historical fiction novel, 'Oil Dusk: A Peak Oil Story'
- **Gulf Publishing & Hart Energy Publishing** - industry journals
- **Society of Independent Professional Earth Scientists** - framed geological maps
- **Southwestern Energy** - math tutors
- **IPAA/PESA** - University of Texas, 'Fundamentals of Petroleum' & the 'Petroleum Dictionary'

ADDITIONALLY, *Especially for Teachers . . .*

- **PESA sponsored** - Teacher/Administrator Stipends & After-Hours Work
- **PESA sponsored** - IPAA/PESA Teacher of the Year Award
- **IPAA/PESA** - Technology room at EIHS
- Teacher Training, ad hoc and annual summer training, e.g. **Southwestern sponsored** PetroSkills training

ADDITIONALLY, *Especially for Students . . .*

- **Anadarko sponsored, Academy portfolios & graduation stoles/cords**
- **Academy polo shirts**
- **Community Service**
- **Energy Clubs**
- **Scholarships for College**
- **Senior Banquets**
- **IPAA Emerging Leaders Group**

MAJOR CONTRIBUTORS

- **Anadarko**
- **Apache**
- **Core Laboratories**
- **Energy Education Foundation**
- **Halliburton**
- **Marathon Oil**
- **PESA**
- **Schlumberger**
- **Shell**
- **Southwestern Energy**

Extern Program Statistics

**Selection is an honor
and a privilege**

- **Year 5 of program in Summer 2014**
- **70 student candidates for Summer 2014**
- **330 participants to date**

Extern Sponsoring Companies

HOUSTON

Apache
Cameron
Core Labs
El Paso
FMC Technologies
Gulf Publishing
Halliburton
Marathon Oil
Newfield Exploration
National Oilwell Varco
PEC Safety Management
Schlumberger
Schlumberger
Shell
W&T Offshore

FORT WORTH

EOG Resources
Harbison-Fischer
Ulterra
Weir Oil & Gas
XTO

What does it take to create a Petroleum Academy?

- Continuous stream of \$\$\$\$\$\$
- Right people – who understand secondary & higher education & the O&G industry
- Cooperating & interested companies - \$\$\$\$\$\$ + time + enthusiasm
- Support of secondary school leadership
- Interested & motivated students & parents
- Relationships with higher education
- Long term commitment by all parties

The image features a dark grey background decorated with various geometric shapes. There are several light blue circles of different sizes, some with white outlines. There are also several red circles, some with white outlines. A large, light blue rounded rectangle with a black border is centered on the page. The word "QUESTIONS" is written in a bold, red, sans-serif font across the center of this rectangle.

QUESTIONS