

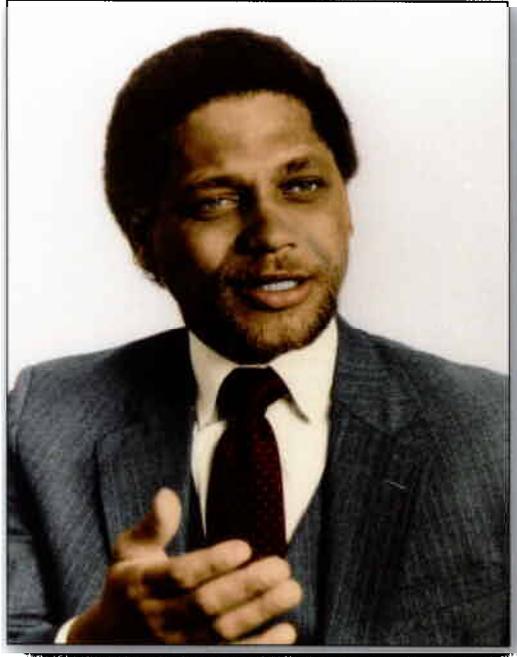


*CREATING ENERGY OPPORTUNITIES
FOR MINORITY STUDENTS*

**OFFICE OF FOSSIL ENERGY
U.S. DEPARTMENT OF ENERGY**



U.S. DEPARTMENT OF ENERGY OFFICE OF FOSSIL ENERGY MICKEY LELAND ENERGY FELLOWSHIP



A TRIBUTE

The Department of Energy's (DOE's) Office of Fossil Energy's (FE's) Energy Fellowship Program is dedicated to Mickey Leland, the late U.S. Congressman from Texas and spokesperson for impoverished people in the United States and throughout the world.

Mickey Leland served six terms in the U.S. Congress and five years as a Texas state legislator and Democratic Party official. During his Congressional career, Leland was chosen to be Freshman Majority Whip in his first term and later served twice as At-Large Majority Whip. Leland was also Chairman of the Congressional Black Caucus for the Ninety-ninth Congress.

As Mickey Leland visited soup kitchens and makeshift shelters, he became increasingly concerned about hungry and homeless people. The work for which he is best remembered began when Leland co-authored legislation with Rep. Ben Gilman (R-NY) to establish the House Select Committee on Hunger. House Speaker Thomas P. "Tip" O'Neil named Leland chairman when it was enacted in 1984. The Select Committee's mandate was to "conduct a continuing, comprehensive study and review of the problems of hunger and malnutrition."

On August 7, 1989, a plane carrying Leland, Congressional staff members, State Department officials, and Ethiopian nationals to a United Nations refugee camp in Ethiopia crashed in a mountainous region. There were no survivors.

Mickey Leland's advocacy, action and commitment to help people continue today through a variety of initiatives including the Mickey Leland Energy Fellowship, sponsored by the DOE's Office of Fossil Energy. This fellowship program is dedicated to supporting minority students who are studying in academic disciplines that are related to FE's mission. The fellowship affords students the opportunity to enhance their knowledge and gain hands-on experience. It also encourages students to consider future employment with the Federal government upon graduation. Mickey Leland's example of public service serves as an inspiration to fellowship recipients.



Department of Energy

Washington, DC 20585

Dear Colleague:

The Department of Energy is aware that in order to meet future employment demands of the fossil fuels industry, it is important to attract students to the science, math, and engineering curriculums. The Office of Fossil Energy's Mickey Leland Energy Fellowship (MLEF) helps address this need. This year marks the ninth year of continued progress and success for the Program. The purpose of this letter is to introduce you to the MLEF, which we believe is a win-win program for all involved.

The Office of Fossil Energy is dedicated to supporting students who are studying in academic disciplines that are related to its mission. Through the MLEF, Fossil Energy Headquarters and field offices provide summer internship opportunities via ten weeks of mentoring, leadership training and work experience with energy industry partners and Department of Energy National Laboratories. The MLEF consists of three internship programs: Historically Black Colleges and Universities (HBCU) Internship Program, the Hispanic Internship Program (HIP), and the Tribal Colleges and Universities (TCU) Internship Program. All three programs value the common goals of advancing the development of human potential, strengthening the capability of minority institutions to provide quality education, and increasing opportunities for students to participate in and benefit from Federal programs.

In addition to assisting industry in improving its diversity goals, the MLEF internships also assist industry partners in completing projects that may otherwise be postponed due to lack of time or adequate personnel. The students bring fresh ideas to the worksite while at the same time are given the opportunity to hone their analytical, teambuilding, and leadership skills. And, the Department of Energy shares in the cost of the internship. As a result, all parties benefit.

I invite you to join us in this endeavor. For further information on how to participate in this program please notify Dorothy Fowlkes. Ms. Fowlkes can be reached at dorothy.fowlkes@hq.doe.gov, or you may call her at 202-586-7421. You may also visit our website at: www.fe.doe.gov/education/lelandfellowships/.

We look forward to hearing from you soon.

Sincerely,

A handwritten signature in black ink, appearing to read "Carl Michael Smith".

Carl Michael Smith
Assistant Secretary
for Fossil Energy



Printed with soy ink on recycled paper



MICKEY LELAND ENERGY FELLOWSHIP

The Office of Fossil Energy (FE) continues to be dedicated to supporting minority students who are studying in academic disciplines that are related to FE's mission. Through its Headquarters and field offices, FE offers summer internship opportunities to students to enhance their knowledge and gain hands-on experience and encourages them to consider future employment with the Federal Government upon graduation. This fellowship embodies three programs – Historically Black Colleges and Universities (HBCU), Hispanic, and Tribal Colleges and Universities. In addition, the fellowship addresses participation by disabled students.

The Mickey Leland Energy Fellowship (MLEF) will be beneficial to all involved. It offers a promise of a win-win situation to stakeholders and is potentially beneficial to all participants. For interns, it provides a professional experience and opportunities for personal growth, making them more marketable upon graduation. It offers an economic incentive to pave the way for hiring and bringing a diverse workforce into a corporate setting, thereby making the industry eligible to qualify for potential business opportunities with the Federal Government.

MISSION

To support the Executive Orders for Historically Black Colleges and Universities, Hispanic Serving Institutions, and Tribal Colleges and Universities by providing opportunities for educational advancement and career development through internships that target minority students in science, math, and engineering curriculums.

VISION: 2010

The Department of Energy's Office of Fossil Energy will be recognized as a model in providing educational and career opportunities for minority students.

GOALS

FE will strive to:

- Develop and facilitate internship opportunities for HBCU, HSIs, and TCU students at DOE/FE sites, industry, and national laboratories
- Enhance student marketability upon graduation
- Create a win-win process by which students can experience and contribute to the organization's workforce by performing significant tasks
- Promote opportunities for disabled students to participate
- Develop highly-skilled graduates who may choose to pursue careers within DOE and other government agencies; and
- Increase opportunities for HBCUs, HSIs, and TCUs to participate and benefit from Federal programs

MORE ON MLEF

Since 1995 the coal, petroleum, and natural gas programs under the Mickey Leland Energy Fellowship (formerly the Minority Education Initiative) have targeted minority students in geology, engineering, math, and the sciences. Students are introduced to 10 weeks of mentoring, leadership training and work experience with energy industry partners and government scientists. The initiative has introduced African Americans, Hispanic Americans, and Native Americans to an industry not known for its diversity.

QUALIFICATION CRITERIA

- Must be U.S. citizen
- Must be currently enrolled in an accredited institution of higher learning
- Must be math, science/geoscience, or engineering major
- Must maintain at least a 2.8 GPA

TERMS FOR INDUSTRY PARTNERING IN THE MLEF

- The MLEF is a 10-week summer internship program under which Industry partners provide mentors for the internship duration.
- The Industry partner participates with DOE on a 60/40 cost-share basis in paying the student's stipend.
- Students work on an FE R&D-related project or a project of the Industry partner's choice.
- A student is sent a terms of appointment letter by a DOE representative after he/she is selected for the program which details the student's length of appointment and outlines that the student is responsible for his/her own housing.

ASSIGNMENT LOCATIONS

Listed below are various sites to which interns may be assigned.

U. S. Department of Energy Field Sites:

- National Energy Technology Laboratory - Pittsburgh, PA and Morgantown, WV
- National Energy Technology Laboratory / National Petroleum Technology Office - Tulsa, OK
- Albany Research Center - Albany, OR
- Rocky Mountain Oilfield Testing Center / Naval Petroleum Reserve #3 - Casper, WY
- Strategic Petroleum Reserve Project Management Office - New Orleans, LA
- Pacific Northwest National Laboratory (PNNL) - Richland, WA
- Lawrence Berkeley Laboratory (LBL) - Berkeley, CA
- Idaho National Engineering & Environmental Laboratory (INEEL) - Idaho Falls, ID
- National Renewable Energy Laboratory - Golden, CO

Other Possible Locations:

- U. S. Geological Survey (USGS) - Reston, VA
- Marathon Oil Corporation, Houston, TX
- Schlumberger Oilfield Services, Sugar Land, TX
- U. S. Department of Energy Headquarters, Washington, DC
- Ohio Coal Association - Columbus, OH

MLEF PROGRAM STATISTICS

Since its inception, the Mickey Leland Energy Fellowship (originally the Minority Education Initiative) has grown from just six students in 1995 to approximately fifty per class in recent years.

Participating colleges and universities have increased from merely two to more than fifty. The students come from all across the continental United States as well as Alaska and Puerto Rico.

THE STUDENTS' DISCIPLINES OF STUDY INCLUDE:

- geology
- mechanical engineering
- civil engineering
- chemical engineering
- electrical engineering
- mathematics
- law
- environmental science
- physics
- geophysics
- computer sciences

The MLEF has proven to be a valuable stepping stone in the lives of the participating students. Below is a sampling of the paths taken by MLEF former interns.

Vincent Thomas

Employed by Exxon/Mobil

Kevin DeSouza

Employed by Turner Construction Company

Kelly Spivey

Employed by the Tennessee Valley Authority (TVA)

Nicole Carr

Employed by Monsanto Life Sciences Company

Herman Bennett

Employed by Ford Motor Company

Walter Doyle

Employed by BP

Jerome Murphy

Employed by Exxon/Mobil

Willisha Davidson

Graduated Fort Valley State University/University of Oklahoma with Degree in Geology

Joseph T. Jones

Employed as Associated Radio Frequency Engineer at Sprint PCS

Robert E. Little, Jr.

Employed as Geologist at ExxonMobil

Elton McWilliams, Jr.

Employed as Attorney at Oklahoma Supreme Court

LaShondra Scott

Employed as Electrical Engineer Planner at TVA

Julian Sessoms

Attending Medical School

Cheryl Mizelle

Employed by U.S. Department of Housing & Urban Development

Derek Stephenson

Attending Medical School

Gabriela (Gabby) Ubay

Employed by U.S. Department of Energy, Office of Fossil Energy

Kevin Walker

Pursuing Masters Degree in Electrical Engineering at Georgia Tech

Byron Wright

Employed as Associate System Analyst at Anteon (Charleston, SC)

Jivan Jhaveri

Employed by Raytheon Company (Los Angeles, CA)

Gabriela (Gaby) Mares

Pursuing Masters Degree at MIT

For additional information, please visit our Web site at:
www.fe.doe.gov/education/lelandfellowships/

HISTORICALLY BLACK COLLEGES AND UNIVERSITIES INTERNSHIP PROGRAM



HISTORY

HBCUs are postsecondary academic institutions founded before 1964 whose educational mission has historically been the education of Black Americans. Located primarily in the Southeastern United States, currently there are about 117 HBCUs; a mix of community, junior colleges, and four-year colleges and universities, of which 61 are private and 56 are state supported.

HBCUs enroll less than 20% of African American undergraduates, but award one third of all bachelor degrees and a significant number of the advanced degrees earned by African Americans.

The U.S. Department of Energy (DOE) Headquarters FE Historically Black Colleges and Universities (HBCU) Internship Program was established in 1995 to support Executive Order 12876. The HBCU component of DOE's FE Mickey Leland Energy Fellowship began as a two-year pilot program with initial placement sites at oil and gas programs in FE. It was established to advance the development of human potential, strengthen the capability of HBCU's to provide quality education, and increase opportunities to participate in and benefit from Federal programs. At the inception of the program, the focus was on geology and engineering disciplines. Since that time, the program has expanded to include other academic disciplines that are integral to the petroleum and coal industries.

"I am very proud of my son and hope that this experience is one that will last him a lifetime."

A Parent

The program began with six students in 1995. Since then, 131 students have participated in the program. On April 6, 1997, the Assistant Secretary for FE fully institutionalized the program within FE. In 1998, an industry partnership initiative was incorporated into the program that allowed placement of students at energy industry sites on a cost-share basis between government and industry. Four students were placed at three locations. Students are brought on board for the summer as Academia Resource Management, LLC (ARM) Fellows, not as Federal employees. ARM administers the program under the direction of the DOE program coordinators.

"I support this effort. It allows industry, the government, and educational institutions to work simultaneously to provide students with the best kind of education. Students can take what they have learned in the classroom and apply it in the workforce. It allows government and the private sector to work as partners in helping to mold future Americans in the workforce."

Dr. Isaac J. Crumbly

Director and Founder

Cooperative Developmental Energy Program (CDEP)

Fort Valley State University

HBCUs that have participated in the MLEF Program to date:

- Albany State University (GA)
- Alcorn State University (MS)
- Bowie State University (MD)
- Clark Atlanta University (GA)
- Dillard University (LA)
- Elizabeth City State University (NC)
- Florida A&M University (FL)
- Fort Valley State University (GA)
- Howard University (DC)
- Langston University (OK)
- Lincoln University (OK)
- Miles College (TX)
- Norfolk State University (VA)
- North Carolina A&T University (NC)
- Prairie View A&M University (TX)
- Shaw University (NC)
- Southern University (LA)
- Spelman College (GA)
- Texas Southern University (TX)
- Tuskegee University (AL)
- University of Georgia (GA)
- Virginia State University (VA)
- Xavier University (LA)



"DOE's HBCU Internship program is an excellent program and has helped our students at Elizabeth City State University tremendously in furthering their careers in science and technology."

Dr. R.P. Sinha

Professor/Chair

Department of Geosciences
Elizabeth City State University

"I was able to go to a totally different environment and interact with people from all over the country. The experience is something I will cherish for the rest of my life."

Khaaliq Salim

Class of 1999

Other Web sites of interest:

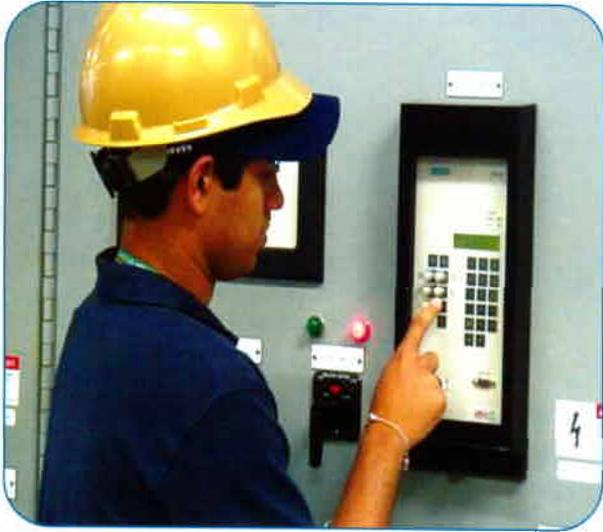
www.hbcu-central.com

HBCU-Central.com

www.nsbe.org

The National Society of Black Engineers

HISPANIC INTERNSHIP PROGRAM



The FE Hispanic Internship Program (HIP) is an element of FE's Headquarters' implementation of the Department of Energy's Hispanic Outreach Initiative. The program was initiated in 1998 with four interns; was increased to seven students for the 1999 internship program; and twelve for the 2000 program. Approximately 20 students have participated each year since. HIP targets the Society for Hispanic Professional Engineers to obtain most of its summer intern students. Students have come from universities across the mainland United States and Puerto Rico.

The Hispanic Association of the Department of Energy (HADOE) has endorsed the HIP as an excellent example of the type of program in which the Department should be involved in order to further the goals of the Hispanic Outreach Initiative.

A technical forum is held each summer at the end of the 10-week internship session. The students attend this forum at different host sites to present highlights of their internship projects. The presentations, published in a compendium, illustrate the complexity of the student projects. Leadership training, time management and government operations understanding and mentoring aspects are also offered through the Hispanic Internship Program under the Mickey Leland Energy Fellowship.

To date, students in the HIP have come from the following colleges and universities:

- Arizona State University (AZ)
- Brigham Young University (UT)
- Massachusetts Institute of Technology (MA)
- McNeese State University (LA)
- New Mexico State University (NM)
- Purdue University (IN)
- San Antonio College (TX)
- Seattle University (WA)
- State University of New York at Buffalo (NY)
- Stevens Institute of Technology (NJ)
- Tulane University (LA)
- University of Alaska at Fairbanks (AK)
- University of Arizona (AZ)
- University of California at Berkeley (CA)
- University of California at Irvine (CA)
- University of California at Long Beach (CA)
- University of California at Santa Barbara (CA)
- University of Michigan (MI)
- University of New Mexico (NM)
- University of Notre Dame (IN)
- University of Puerto Rico (PR)
- University of Texas at Austin (TX)
- University of Texas at Brownsville (TX)
- University of Texas at El Paso (TX)
- University of Texas at San Antonio (TX)
- University of Wyoming (WY)
- Western Washington University (WA)
- Worcester Polytechnic Institute (MA)

"MLEF is a unique experience which changed my life completely. During the internship, I had the opportunity to interact with different people who helped me gain knowledge and experience in the Engineering field and how to work with teams. I would definitely recommend this internship to anyone."

Jivan Jhaveri
Intern, Class of 2003



...leadership training...



...team building exercises...

Examples of Types of Summer Internship Projects under the Hispanic Internship Program:

- Research on energy in Ecuador
- Stakeholder involvement in energy
- CENTRA system utilization
- Brine disposal at the Strategic Petroleum Reserve
- Testing and monitoring operations/SPR
- Problem research at Bryan Mound
- Decommissioning a brine pond
- Strategic Petroleum Reserve Field Verification project
- Argentina Prospects Roundtable/Buenos Aires



Marisol Sarabia and **Grisel Ramirez** (pictured at left), 2003 interns at Strategic Petroleum Reserve's (SPR) Bryan Mound site located south of Freeport, Texas. Marisol analyzed different options to remove a fire protection pump diesel engine (BMP-29). The engine was located to the left of them in this picture (it is not visible). Grisel analyzed the feasibility of using the Sparging Pump (BMP-26) located just to the left of Marisol (this pump is in the picture) in another fluid process. That process was to flush cavern strings. The big pumps and motor in the background are 1500 horsepower pumps used to pump water from the Brazos river to the site.

Other Web sites of interest:

www.shpe.org

The Society of Hispanic Professional Engineers



TRIBAL COLLEGES AND UNIVERSITIES (TCU) INTERNSHIP PROGRAM

The Tribal Colleges and Universities Internship Program (TCU) is the newest component of FE's Mickey Leland Energy Fellowship (MLEF). The goals of the TCU Internship Program included: forging new frontiers, advancing excellence in education, and diversifying the high-technology oil, coal, and gas industry workforce by establishing effective partnerships with Tribal Colleges and Universities. The Office of FE supports Executive Order 13021 of October 19, 1996, involving Tribal Colleges and Universities for the purposes of ensuring that they have access to opportunities afforded to other institutions. To date, fourteen students have participated in the program.

The program requires students selected for the ten-week internship to have completed their sophomore year, or have graduate level standing, be pursuing academic degrees in science, math and engineering, and have a minimum grade point average of 2.8 out of 4.0. Placement sites include DOE Headquarters, field sites, and national laboratories or industry.

What are Tribal Colleges and Universities?

Tribal Colleges were created over the last 30 years in response to the higher education needs of American Indians and they play a vital role in the communities they serve. Most of these Tribal Colleges serve geographically isolated populations that have no other means of accessing education beyond the high school level. Eighty-five percent of their student populations live in poverty. Tribal Colleges are unique in that they combine personal attention with cultural relevance to help overcome the barriers in higher education.

Today, there are 32 tribally chartered colleges, two federally chartered Indian colleges and one Congressionally chartered Indian college in a total of 12 states. The tribally controlled colleges are chartered by one or more tribes and locally managed. The federally chartered colleges are governed by national boards.

States where tribally chartered colleges and three federally chartered Indian colleges are located:

Arizona
California
Kansas
Michigan

Minnesota
Montana
Nebraska
New Mexico

North Dakota
South Dakota
Washington
Wisconsin

Colleges and Universities that have participated in the MLEF Program to date:

- Arizona State University (AZ)
- Montana State University at Billings (MT)
- New Mexico Tech (NM)
- Oglala Lakota College (SD)
- Pima Community College (AZ)
- University of Colorado (CO)
- University of Oklahoma (OK)

Other Web Sites of Interest:

- www.aihec.org – American Indian Higher Education Consortium
- www.niea.org – National Indian Education Association
- www.aises.org – American Indian Science and Engineering Society

Minority Education Initiative (MEI) Renamed Mickey Leland Energy Fellowship (MLEF)

The late Congressman Mickey Leland envisioned a world in which every human being had basic necessities like food, water, clean air, energy and an opportunity to develop to their full potential. He was passionate about the power of inclusion to solve national and global problems.

Since 1995 the coal, petroleum and natural gas programs under the Fossil Energy Minority Education Initiative have targeted minority students in geology, engineering, math and the sciences. Students are introduced to 10 weeks of mentoring, leadership training and work experience with energy industry partners and government scientists. This initiative has introduced African Americans, Hispanic Americans, and Native Americans to an industry not known for its diversity.

Mickey Leland represented the people of a congressional district in Houston, Texas, a city known to some as the energy capital of the world. He devoted his life to improving the lives of others and would have been a champion for energy as a tool for development.



The Class of 2000—the first to be named “Leland Fellows”—along with Congressman Leland’s widow, former Secretary Bill Richardson, other DOE and Fossil Energy officials.

Therefore, on August 8, 2000, the Secretary of Energy designated the Fossil Energy Minority Education Initiative to be renamed the Mickey Leland Energy Fellowship.



TESTIMONIES TO SUCCESS



Touring Schlumberger's Sugar Land, TX Product Center.

"The SPR (Strategic Petroleum Reserve) afforded me the opportunity to participate in a valuable internship program. I was able to put into practice material learned in school."

Santiago "Jimmy" Guerra, IV

Intern, Summer 1999



Re Kenebrew, Sheila Hopkins



FE HBCU Internship Founders
Reginal W. Spiller, Capt. E.R. Hunter



University of
Puerto Rico
students at
2003
Technical
Forum



SPR Interns in New Orleans, LA

"This internship has been a great opportunity since, having an engineering background, I was able to broaden my perspective and compliment it with knowledge about different types of energy sources, political and international affairs, and policies."

Silvana Palacios

Intern, Summer 1998



Guest Speaker
Paula McCann at
Technical Forum



Rosa Castillo, Jivan Jhaveri



Rick Furiga
Former
MLEF Advisor

RECENT MLEF CLASSES



Interns, Coordinators, Mentors, and DOE Officials
Class of 2002



"Visiting the universities and working directly with the students, educators, and administrators always left me feeling very optimistic about America's future. We'll be in good hands."

Diana Greenhalgh

*Former MLEF Coordinator
Strategic Petroleum Reserve Office*

"From a mentor's standpoint, this program gives us the opportunity to see the future. These students are our future. What more positive contribution can we, as mentors, make to the future than to help mold the minds and attitudes of those who will carry on?"

William (Bill) Freeman

*Long-time Mentor
Office of Power Systems*

"It has been a pleasure for me to be involved with the Mickey Leland Energy Fellowship Program. I have seen first-hand the impact this program has on our students and also the many benefits that the students bring to the facilities and companies. This is definitely a win-win situation for everyone involved. The future of Fossil Energy is in good hands!"

Mariann Bleazard

Academia Resource Management, LLC

"RMOTC's success in the MLEF program can be traced directly to the quality of students who participate."

Mark Milliken

*Geologist and Mentor
Rocky Mountain Oilfield Testing Center (RMOTC)*

"A win-win process by which students gain experience and contribute to the organization by accomplishing real-time work."

Julio Maldonado

*Senior Systems Engineer
Strategic Petroleum Reserve
New Orleans, LA*



Interns, Coordinators, Mentors, and DOE Officials
"Schlumberger Day" 2003



SORBENT INJECTION POINTS

A sorbent injection point is shown inside of a boiler as seen from a corner view port in the boiler wall showing sorbent being injected into the operating boiler.
U. S. Department of Energy
picture archives – Coal

CONTACT INFORMATION

Mickey Leland Energy Fellowship Coordinators

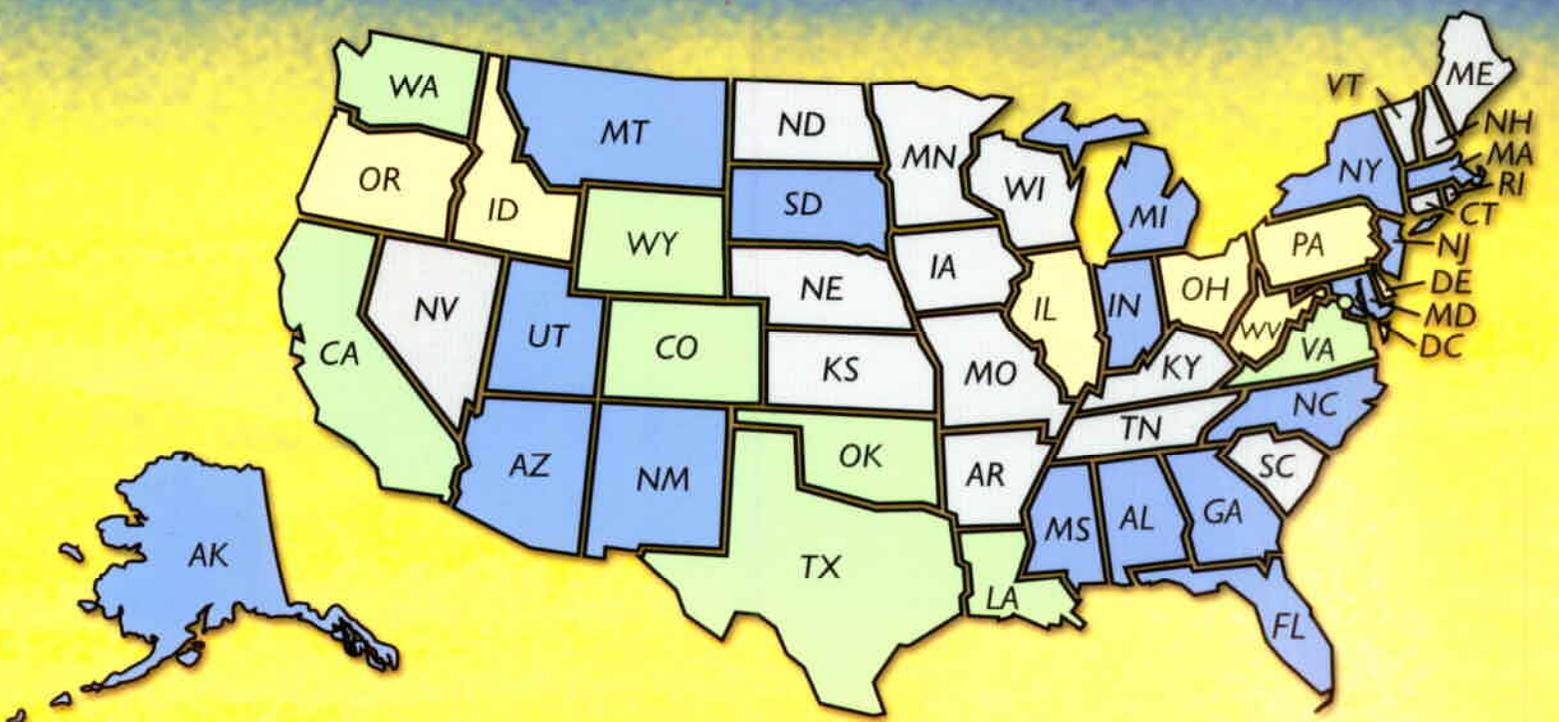
Dorothy E. Fowlkes

Mickey Leland Energy Fellowship Team Leader
HBCU Internship Program Coordinator
Phone: (202) 586-7421
Email: dorothy.fowlkes@hq.doe.gov

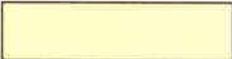


Vanessa Dodson-Cunningham

Hispanic Internship Program (HIP) and
Tribal Colleges & Universities (TCU) Coordinator
Phone: (202) 586-0445
Email: vanessa.dodson@hq.doe.gov



STATES WITH MLEF LOCATIONS:

-  Field Sites/
National Laboratories
-  Colleges/Universities
-  States with Both

Puerto Rico