

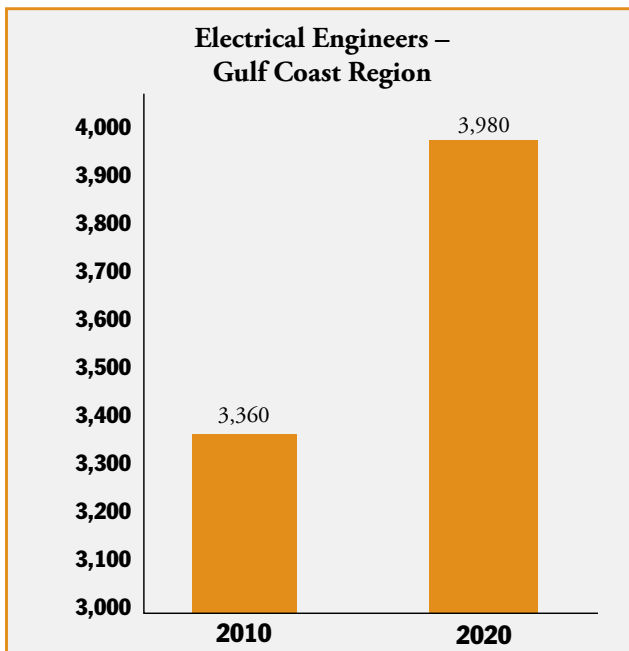
## GOT JUICE FOR A GREAT JOB? TRY ELECTRICAL ENGINEERING...

Some of the best jobs are all about power — supplying and generating it.

Take electrical engineers, for example. Electrical engineers design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems. Electrical engineers generally focus on power supply and power generation as opposed to electronics engineers, who work on applications of electricity to control systems or process signals.

The Gulf Coast region employs a large number of electrical engineers and faces a growing demand to fill upcoming vacancies as many baby boomers retire. In fact:

**THE NUMBER OF NEW ELECTRICAL ENGINEERS IN THE GULF COAST REGION IS PROJECTED TO BE NEARLY 4,000 BY 2020.**

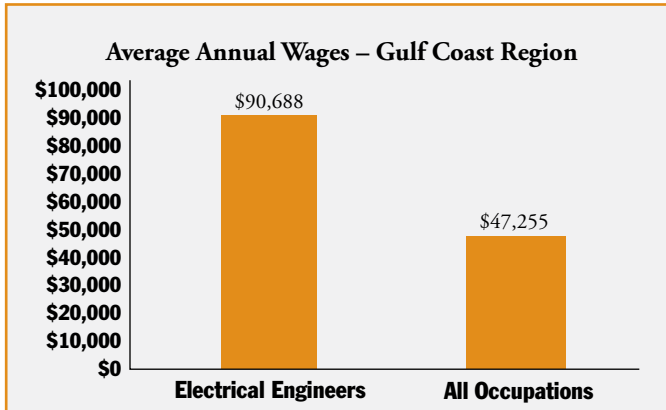


Brought to you by the Education Committee of The Gulf Coast Workforce Board.  
For more information visit us on the web at [www.wrksolutions.com](http://www.wrksolutions.com)  
Latest data available. June 2013.

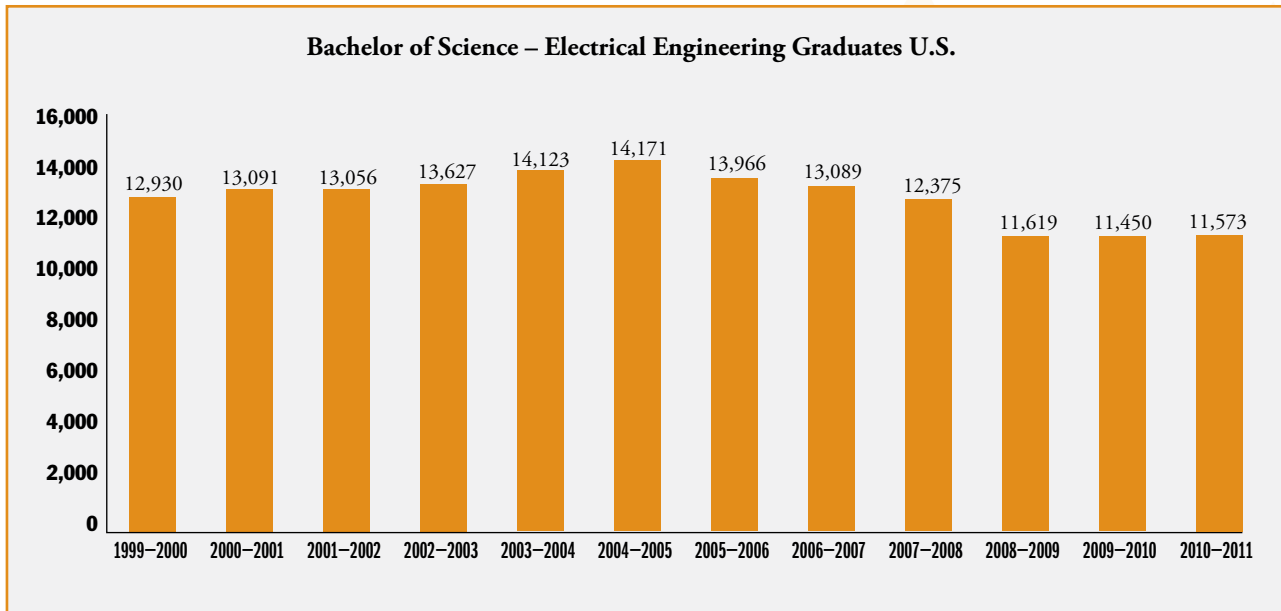
\*Includes the following counties: Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton.

# FOCUS ON ELECTRICAL ENGINEERING

**ELECTRICAL ENGINEERS EARN MORE THAN DOUBLE THE REGION'S AVERAGE ANNUAL WAGE FOR ALL OCCUPATIONS.**



**AS BABY BOOMERS APPROACH RETIREMENT, COMPANIES FACE THE TASK OF REPLACING THEM AT A TIME WHEN THE NUMBER OF ELECTRICAL ENGINEERING GRADUATES HAS STARTED TO DECLINE.**



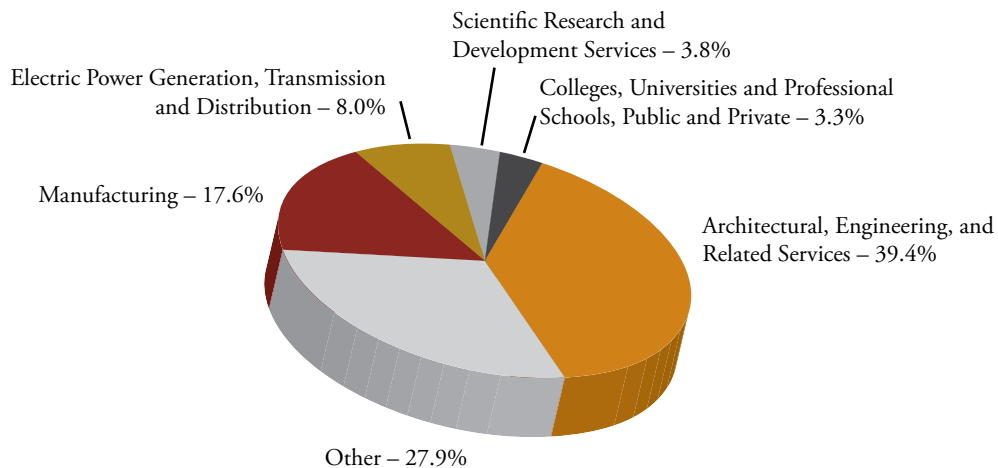
Source: National Center for Educational Statistics

# FOCUS ON ELECTRICAL ENGINEERING

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**ELECTRICAL ENGINEERS ARE IN DEMAND ACROSS A NUMBER OF INDUSTRIES.**

## Where the Jobs Will Be in 2020 Gulf Coast Region



### IF YOU'RE INTERESTED, MAKE WAVES EARLY...

To get your first job as an electrical engineer, you will need at least a bachelor's degree in electrical engineering. Getting a master's degree in electrical engineering opens up additional opportunities for higher level positions. Most universities offer electrical engineering as a field of study, including the University of Houston, Texas Southern University, Prairie View A&M, and Rice University — all in the Gulf Coast region. Students wishing to pursue a career as an electrical engineer can begin to prepare in high school by taking chemistry, physics, mathematics, and science.

# FOCUS ON ELECTRICAL ENGINEERING

## PREPARING FOR A ELECTRICAL ENGINEERING CAREER\*

9th Grade		Suggested Coursework	
	English I	World Geography	<b>Career-Related Electives:</b> Technology Systems (Modular Lab Based) or Research and Technical Writing or Communication Systems
	Algebra I	Languages other than English I	
	Biology	Health/PE or Equivalent	
10th Grade		Suggested Coursework	
	English II	World History	<b>Career-Related Electives:</b> Engineering Principles or Engineering Graphics or Electricity/Electronics Technology
	Geometry	Languages other than English II	
	Chemistry	Technology Applications	
11th Grade		Suggested Coursework	
	English III	United States History	<b>Career-Related Electives:</b> Bio-related Technology Systems or Energy, Power, and Transportation Systems or Manufacturing Systems AND Languages other than English III
	Algebra II	Communication Applications	
	Physics	PE or Equivalent	
12th Grade		Suggested Coursework	
	English IV	Government/Economics	<b>Career-Related Electives:</b> Research Design and Development or Communication Graphics or Computer Multimedia and Animation AND Languages other than English IV
	Precalculus	Fine Arts	
	AP Physics		

\*Source: AchieveTexas.org

# FOCUS ON ELECTRICAL ENGINEERING

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## MAJOR EMPLOYERS IN THE GULF COAST REGION

- ABB
- Anadarko Petroleum Corporation
- The Boeing Company
- BP America
- CDI Corporation
- CenterPoint Energy
- Chevron
- City of Houston
- The Dow Chemical Company
- Dynegy
- Fluor EPCM Services
- Halliburton
- Hewlett-Packard
- Jacobs Engineering Group Inc.
- Lockheed Martin
- S & B Engineering and Constructors, Ltd
- Shell



Additional information on engineering careers can be found at the Texas Society of Professional Engineers, [www.tspe.org](http://www.tspe.org).

Workforce Solutions is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities.

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