



# OFFICE OF INTERNATIONAL BUSINESS DEVELOPMENT

With the largest network of overseas offices of any state in the U.S., Pennsylvania's Office of International Business Development (OIBD) is committed to supporting Pennsylvania companies by working with them to increase their export sales and encouraging foreign companies to invest in Pennsylvania.



world trade **PA**

## Pennsylvania's Assets

- **Stable Economy**  
Large, growing and diverse economy
- **Comprehensive Infrastructure**  
Transportation, water resource, energy
- **Strategic Location**  
Central to U.S and Canadian businesses and consumers
- **Modern Workforce**  
Well-educated, highly skilled
- **Diversified Industries**  
Highly diversified with a strong manufacturing base
- **World-class Education**  
Hundreds of world-class institutions of higher education
- **Game-changing Resources**  
Supply and demand, Marcellus Shale, manufacturing

# We are the 22<sup>nd</sup> Largest Economy in the World

Pennsylvania's Gross State Product - USD \$603.87 billion



**6<sup>th</sup> in the U.S.**



## Larger than:

	Sweden	\$525b
	Norway	\$499b
	Poland	\$489b

Source: World Development Indicators Database, World Bank, Sept 2014

Source: U.S. Bureau of Economic Analysis, 2010 GDP by State, 2014

## 50 Indian-Owned companies in Pennsylvania

Providing 1,376 jobs – 24% are Manufacturers



**Pennsylvania: A Global Player**

***India ranks 17<sup>th</sup> for the total  
number of firms in PA***

## Top 10 Indian-Owned firms in PA

	<u>PA Jobs</u>	<u>Mfg/Svc</u>
- Mindteck, Inc	230	Svc
- ISGN Fulfillment Services, Inc.	200	Svc
- GTL (USA), Inc.	134	Svc
- Bilcare, Inc.	122	Mfg/Svc
- Manugraph Americas	110	Mg
- Tata America Intl Corp	75	Svc
- Apollo Metals, Ltd.	50	Mfg
- Art Sargent, Inc.	50	Mfg
- Aserdiv, Inc.	50	Mfg/Svc
- Niit (USA), Inc.	45	Svc

# Major Multi Nationals in Pennsylvania



## Indian Companies Growing in PA

There are 50 Indian companies – both large firms and growing tech firms in PA, employing more than 1,100 people.

- Tata Steel, Arcelor-Mittal
- Chambai Fertilisers and Chemicals
- Genpact (back office support)
- Unilog (ecommerce solutions)
- Caliber Technologies (software for life sciences industry)



## Recent Successful Indian Projects to PA





## Indian Investment into PA

### Wipro

Project Requirements:  
Facility near Volvo  
Construction



Result: Wipro established their manufacturing facility in Chambersburg, creating 74 jobs and investing over \$9.7 million into PA.

### Denali

Project Requirements:  
Manufacturing space  
for expansion near  
current Pittsburgh facility



Result: Denali expanded their presence in Pennsylvania in the Pittsburgh region by relocating to a new facility, creating 55 new jobs, retaining 21 existing jobs and investing over \$9.3 million into PA.

# Pennsylvania: A Global Economy

Nearly  
**\$81 billion**  
2012 Imports

## Top Imports Include:

- Crude oil
- Cellular phones
- Medicaments
- Coffee
- Airplane and helicopter parts
- Footwear
- Women's trousers

Ranks among the  
**Top 10**  
states in the U.S.  
for Exports

## Major Imports from:

- India 
- China 
- Canada 
- Nigeria 
- Germany 
- Israel 

Source: U.S. Census Bureau

Nearly  
**\$39 billion**

## Top Exports Include:

- Nucleic acids
- Civilian aircraft
- Vaccines
- Motorcycles
- Diesel locomotives
- Articles of plastic

## Strategic Location

In Pennsylvania, it's easy and convenient to reach both in-country customers as well as those abroad.



**3 major ports**



**250,000 lane miles of highways**



**6 international airports**



**5,600 miles of rail lines**



# Transportation and Infrastructure

## Strategic Access to U.S. Markets

A keystone to U.S. markets, Pennsylvania is located **within 500 miles of 40 percent of the U.S. population** and purchasing power, including **six of the 10 largest markets** and 60 percent of Canada's population.

## Convenient Location

Between the financial markets of New York City and the regulation hub of Washington D.C.



## Leading the Way to Energy Independence

- Home to the 2<sup>nd</sup> largest energy field in the world
- 2<sup>nd</sup> in the U.S. for electricity generation
- 2<sup>nd</sup> in the U.S. for natural gas production
- 4<sup>th</sup> in the U.S. for energy production
- Domestically produced energy is leading to more affordable energy bill for all PA consumers



## Infrastructure – Water Resources

- ▶ 86,000 miles of streams and rivers
- ▶ 120 miles of shoreline
- ▶ Nearly 4,000 lakes, ponds and reservoirs



*In Pennsylvania, groundwater is about*  
**30x more abundant**



*than all surface water combined.*

# Leading the Way to Energy Independence



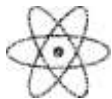
**2nd**  
in the nation  
for electricity  
generation



**2nd**  
in the **nation**  
for natural gas  
production



**4th**  
in the nation  
in energy  
production



2nd in the nation for nuclear generation



9th in the nation for total solar capacity



15th in the nation in total wind capacity installed



4th in the nation for coal production



19th in the nation for crude oil production

*Home to the 2nd largest  
energy field in the world*



## Infrastructure – Energy Resources

**Domestically produced energy is leading to more affordable energy bills for all Pennsylvania consumers.**

- ▶ Wholesale electricity reduced 40% in the past five years
- ▶ Gas rates down 50%
- ▶ A reliable electric grid free of disruptions
- ▶ Dependable and affordable public transportation
- ▶ Cost-effective shipping and transportation of goods





# Shale Gas & the Plastics Industry



PA is the 10th largest  
chemical producing state



Ships \$7.8 billion in products  
around the world



PA's 4<sup>th</sup> largest  
manufacturing industry  
is the Chemicals industry



57% higher average  
manufacturing wage of \$88,660



Generates \$3.7 billion  
in payroll annually



Provides more than 126,400  
jobs both directly & indirectly



Invests \$943 million to build &  
update equipment & facilities



Generates \$1.04 billion in state,  
local & federal taxes

## Marcellus and Utica Shale Gas

**With the 2<sup>nd</sup> largest energy field in the world, Pennsylvania is on the verge of a new industrial revolution.**

- Pennsylvania ranked 4<sup>th</sup> in shale industry economic contribution for 2010
- 17.5 billion cubic feet of natural gas produced per day
- Plastics and rubber products are directly linked to the natural gas industry. Pennsylvania ranks 5<sup>th</sup> in the country for both plastics shipment and in value added to the plastics industry

### IMPACT MEASURES

**793 billion cubic feet**

Pennsylvania Marcellus Shale production in first half of 2012

**\$633 million**

Amount Pennsylvania consumers saved during 2010

**Nearly 1:2**

Return on investment for every \$1 invested by Marcellus Shale producers

**In 2010**

**\$11.2 billion** increase in economic activity and **140,000 jobs** supported

## A World-Class Workforce



Labor force of more than 6.4 million



\$450 million+ will be invested in job training for Pennsylvanians in 2014



4 of the top 50 universities in the country

- More than 40% of Pennsylvanians between the ages of 25 and 34 have college degrees
- PA ranks in the top 10 in the number of adults with college degrees employed in high-level occupations
- The State ranks 10<sup>th</sup> in the number of postsecondary degrees awarded
- The commonwealth is first in the U.S. in terms of net migration of students into the state for postsecondary education
- Each year, Pennsylvania's world-class colleges and universities attract more than 60,000 students from across the U.S. and around the world

# Advanced Manufacturing & Materials

## Supportive Business Climate

- Broad-based business tax reforms
- State agency regulatory reforms
- \$55 million R&D Tax Credit
- Growing skilled talent & job matching
- Tools to accelerate innovation

## Major sectors include:

- Transportation
- Metal machining and fabrication
- Pharmaceuticals
- Chemicals and plastics

## Emerging markets include:

- Energy production and the natural gas supply chain
- Nano-materials
- 3-D printing

## IMPACT MEASURES

**12,100**

manufacturing jobs  
created in 2011

**\$70+ billion**

value added by the  
industry to the state  
economy each year

**569,000+**

employed in PA  
manufacturing in 2012

**189,300**

employment related  
to manufacturing  
goods exports in 2009

# Life Sciences Leadership



79,262 employed in the life sciences



\$40 billion annual economic impact



2,279 business establishments



\$1.38 billion NIH funding awarded to PA research projects in 2013, ranking it fourth in the country

- 5<sup>th</sup> in the U.S. and 2<sup>nd</sup> in the Mid-Atlantic for higher education Research & Development expenditures
- 5<sup>th</sup> in the U.S. for state agency R&D expenditures
- 4<sup>th</sup> in the U.S. for life science-related patents
- More than 1,800 research, testing and medical labs
- Eight Pennsylvania universities are categorized by the Carnegie Foundation as having “Very High” or “High” research activity

# Medical Device Manufacturing



Nearly 1,900 companies employ more than 31,000.



Pennsylvania ranks 4th in medical technology employment in the U.S.



Pennsylvania received the 4th highest amount of National Institutes of Health funding in 2013—\$1.38 billion.



Pennsylvania exhibits the highest job multiplier for medical technology industry in the country (3.57).

## Ben Franklin Technology Partners

- \$14.7 million in 174 companies
- Attracted an additional \$525 million in post-Ben Franklin financing
- 132 patents and software copyrights awarded to client companies

## Life Science Greenhouses

- Invested more than \$67.8 million in more than 133 projects since 2001
- More than \$3 billion in private funds leveraged
- 175 life-saving patient care products brought to market

# Technology

- Pennsylvania has a robust incubator system, strategic programs, an abundance of research institutions and institutions of higher education
- Pittsburgh and Philadelphia are among the top 15 in the U.S. for Tech Startup Investments in 2012
- Pennsylvania was ranked 5<sup>th</sup> in technology and innovation by CNBC's "America's Top States for Business" (2012)

## IMPACT MEASURES

**5<sup>th</sup>**  
in the country for  
technology and  
innovation

**205,200**  
high-tech  
employees

**\$81,300**  
average annual  
wages

**13,132**  
high-tech  
establishments

**5<sup>th</sup>**  
in R&D and testing  
labs employment

## Creative Industries

- Videogame Growth Initiative (VGI) Philadelphia is a project started by several game developers and professionals to develop, promote, and support the growth of the interactive software entertainment industry in the region.
- Harrisburg University, Carnegie Mellon University and Drexel University have established a consortium of universities to promote the interactive media industry in Pennsylvania.
- Pennsylvania has Drexel University - Ranked 3rd in North America for Game Design Degrees by the Princeton Review.
- The University of Pennsylvania is the only Ivy League school offering a graduate degree in Game Programming.

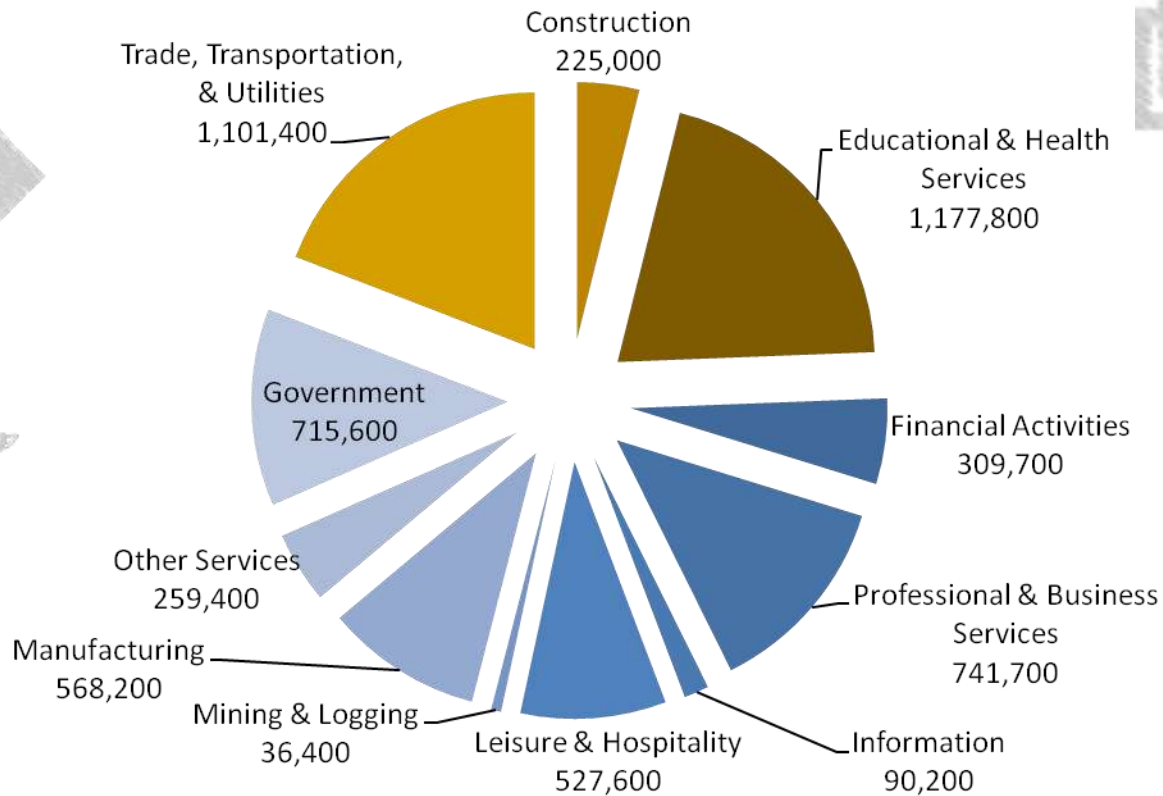
Ranked **1st**  
in the U.S. for the highest  
growth rate in  
*art-related industries*

**4 Top 50**  
Colleges &  
Universities  
in the U.S. PA has  
**21**  
accredited  
film schools



# GSP Diversity in Industry Structure

Pennsylvania is home to a mature and robust mix of industries.



Source: Bureau of Economic Analysis; values in millions of 2012 dollars

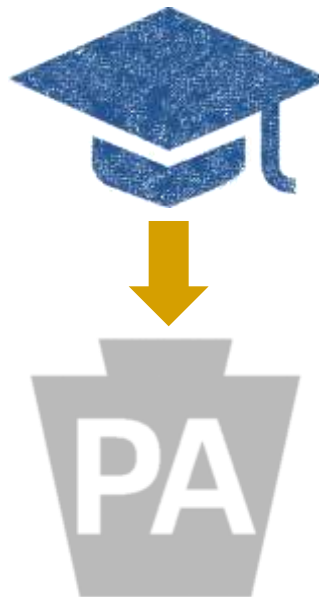
## Education and Training Hub

**# 6** Open Doors ([www.iie.org/opendoors](http://www.iie.org/opendoors)) ranks Pennsylvania as the sixth largest host state for international students with a total of over 33,000 students in 2012. These students are estimated to spend more than \$1.07 billion in the Commonwealth



**257**

**Degree Granting  
Higher Education Institutions**

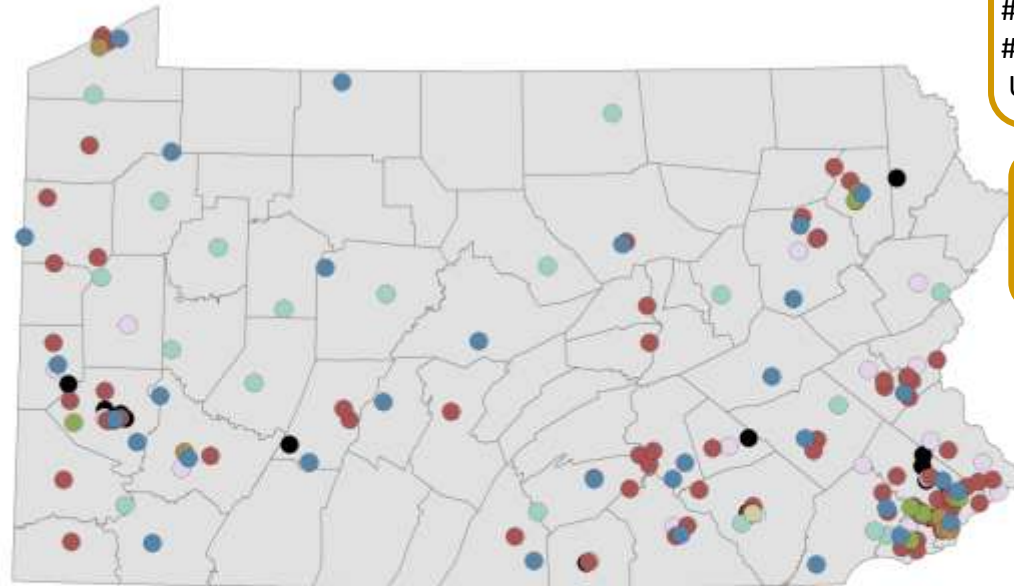


**740,000**


**Students in Degree Programs**

# Numerous nationally recognized institutions of Higher Education

**Carnegie Mellon University**  
 #1 Computer Science Graduate Program  
 #7 Business School  
 #8 Engineering School

**University of Pennsylvania**  
 #1 Business School  
 #8 Overall National University



**Swarthmore College**  
 #3 Liberal Arts College



**Haverford College**  
 #9 Liberal Arts College



**Type of School**

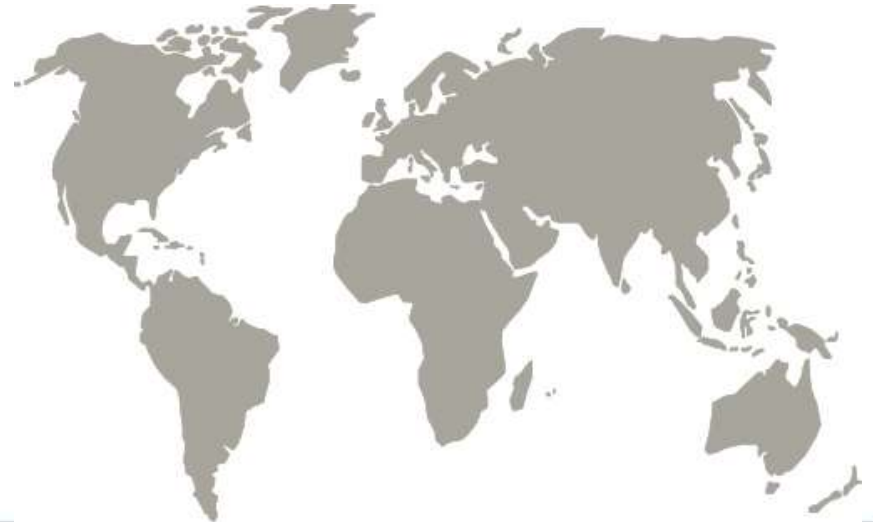
- Community College
- Private Two-Year College
- State University
- Private State-Aided Institution
- State-Related Commonwealth University
- Private College and University
- College of Technology
- Theological Seminary

Source: Pennsylvania Department of Education, U.S. News & World Report 2014

Note: Pennsylvania has 122 schools with technical programs offered at 166 locations in 93 Pennsylvania cities leading to technical certificates or associate degrees; some of these may be in Community Colleges

## Impact of International Students

- Pennsylvania attracts more than 33,000 foreign students to study in PA
- India is the 2<sup>nd</sup> leading country of origin for foreign students in Pennsylvania, accounting for 15.8% of all international students enrolled in the state.
- By 2020, it is expected that India will be the top country of origin for all international students studying in the U.S.
- International students in Pennsylvania support more than 17,500 full-time jobs in the commonwealth
- The net contribution of international students and their families to the Pennsylvania economy exceeds \$1 billion in tuition and living expenses alone



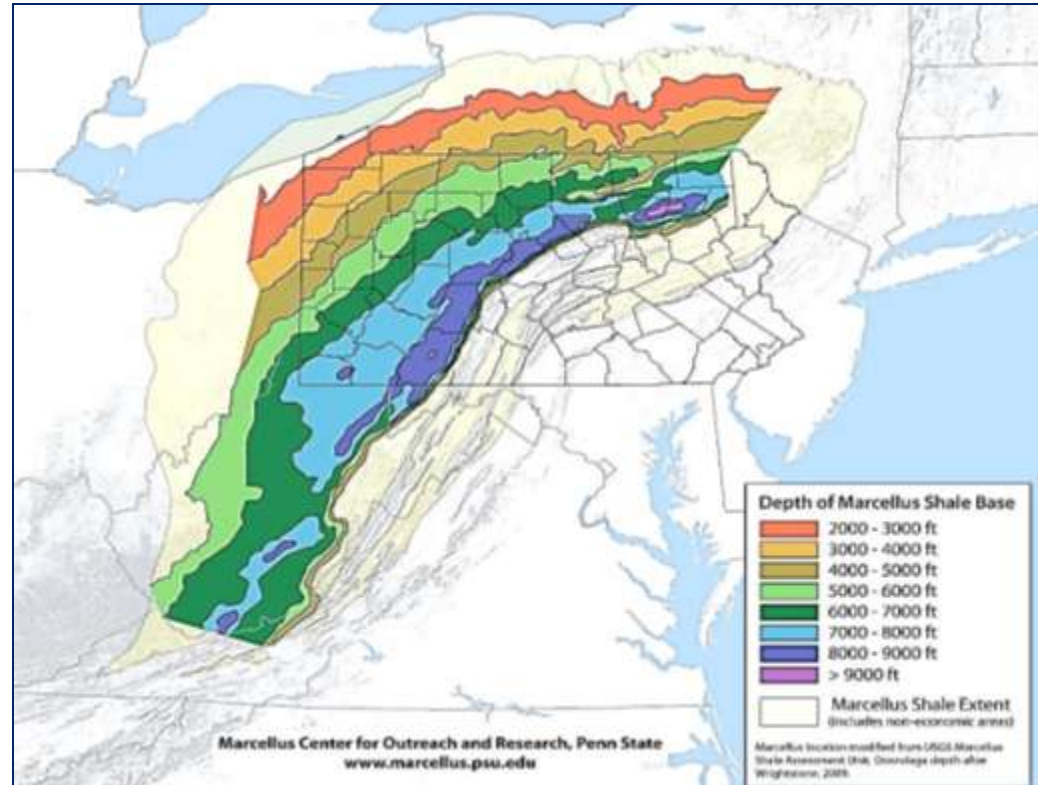
# A Game Changer

**The Marcellus Shale formation has created tremendous economic opportunities across Pennsylvania.**

The U.S. Geological Survey recently estimated that the formation contained:

- ▶ 38 trillion cubic feet of recoverable natural gas
- ▶ 940 million barrels of oil,
- ▶ 8 million barrels of natural gas liquids like ethane and propane

Beneath the Marcellus is the Utica Shale, with additional gas, oil and liquids.

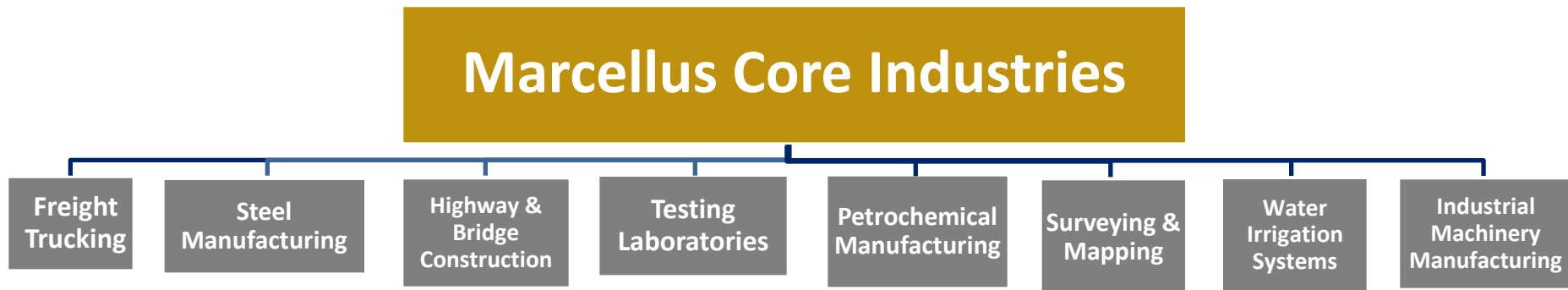


## Big Indian Player in the Energy Market

Reliance Energy in partnership with Atlas Energy—significant holdings near Pittsburgh

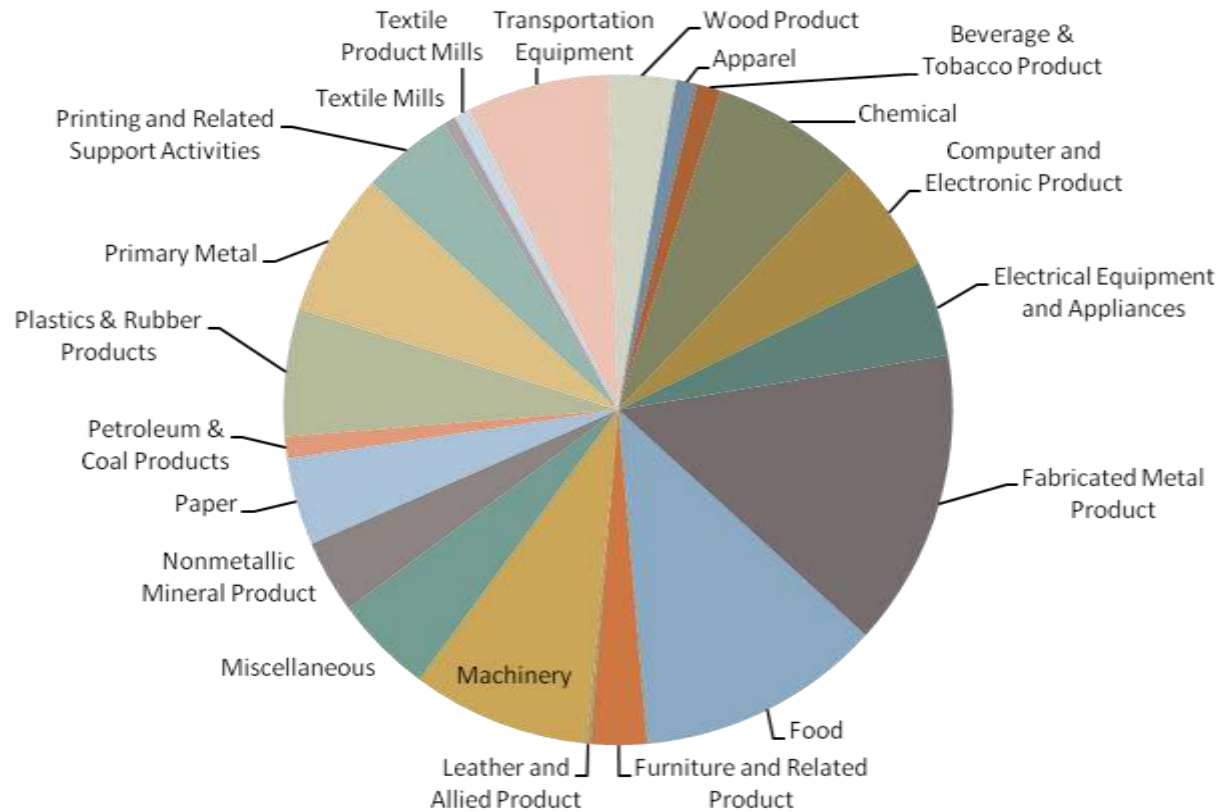
## Extended Supply Chain

**Thirty different industries have been identified that directly support the Marcellus Shale core industries.** Together, these industries employ more than 200,000 individuals.



# Diversity of Manufacturing

Pennsylvania's manufacturing industry is highly diversified.



## PA is a great place to do business...

- Largest international investment and trade network in the U.S.
- Reduced business taxes by more the \$2 billion since 2004
- Proximity to low cost source of energy
- Strong commitment to Indian market:-First US state to open a full time investment & trade office in India
- Superior market access to Northeast and Midwest U.S. and eastern Canada
- Good transportation with direct international flights
- Strong technology sector
- Access to some of the best colleges and universities in the world with a program specially aimed at attracting Indian students
- Solid service by state and regional partners
- PA is the fastest growing state for FDI



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