



# U.S. Department of Labor

## Growing Jobs By Going Green

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Employment and Training  
Administration

ETA

DEPARTMENT OF LABOR

# Overview

- ETA's National Green Jobs Agenda
- Bureau of Labor Statistics data on Green Sectors
- ETA Investments
- State Activities in the Region

# The National Green Agenda

- Investment in renewable energy, energy efficiency and natural resource conservation
- Create job training programs for clean technologies
- Create 5 million jobs over 10 years

# What is a Green Economy?

*“Economic activity related to reducing the use of fossil fuels, decreasing pollution and greenhouse gas emissions, increasing the efficiency of energy usage, recycling materials, and developing and adopting renewable sources of energy”*

*-Greening of the World of Work: -*

*Bureau of Labor Statistics*

# What are Green Jobs?

*Occupations in areas such as agriculture, construction, manufacturing and technology that considerably restore, preserve and enhance environmental quality.*

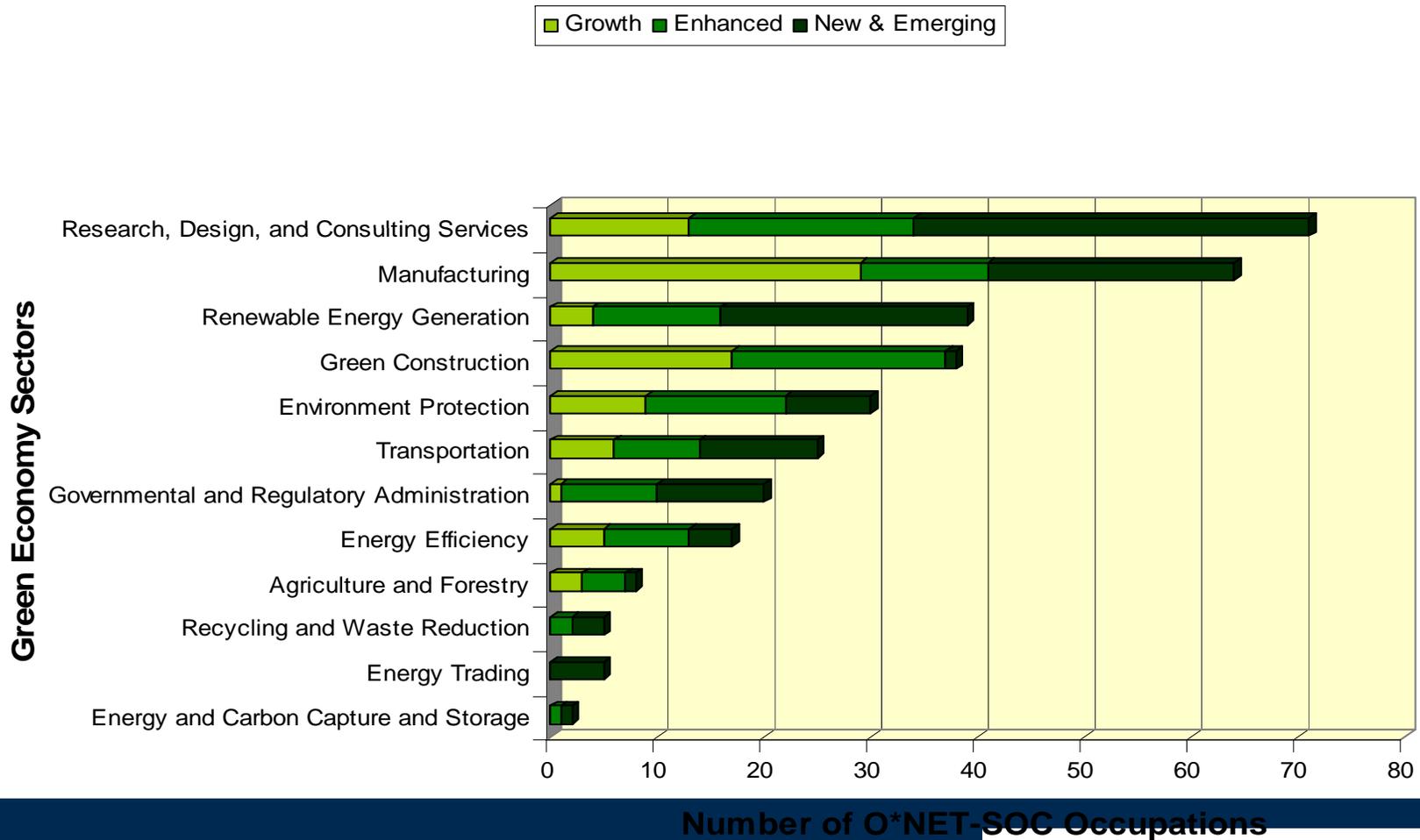
*- R5 Green Team*

# Green Economy Sectors

- **Research, Design, and Consulting Services**
  - **Manufacturing**
  - **Renewable Energy Generation**
  - **Green Construction**
  - **Environment Protection**
  - **Transportation**
  - **Government and Regulatory Administration**
  - **Energy Efficiency**
  - **Agriculture, Natural Resource Conservation and Forestry**
  - **Recycling and Waste Reduction**
  - **Energy Trading**
  - **Energy and Carbon Capture**
- Greening of the World of Work:  
Implications for O\*NET-SOC and  
New and Emerging Occupations*

# Distribution of Green O\*NET-SOC Occupations Across Sectors

## Distribution of Green O\*NET-SOC Occupations Across Sectors



# O\*NET Report

The screenshot shows a Microsoft Internet Explorer browser window displaying the O\*NET OnLine website. The browser's address bar shows the URL <http://online.onetcenter.org/>. The website header includes the O\*NET logo and the text "Occupational Information Network". Below the header is a navigation menu with "Related Sites", "OnLine Help", and "Home". A search bar labeled "Occupation Quick Search:" is present. The main content area features a large heading "Welcome to O\*NET™ OnLine!" with the tagline "Making occupational information interactive and accessible for all...". A "What's New?" section highlights "Tools and Technology" used in In-Demand occupations. Four search options are listed in a grid: "Find Occupations", "Crosswalk Search", "Skills Search", and "Tools & Technology Search". At the bottom, a paragraph explains that the O\*NET system is the nation's primary source of occupational information.

O\*NET OnLine - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail New Window

Address <http://online.onetcenter.org/> Go Links

o\*net Occupational Information Network

O\*NET OnLine

Related Sites • OnLine Help • Home Occupation Quick Search:  Go ?

## Welcome to O\*NET™ OnLine!

*Making occupational information interactive and accessible for all...*

**What's New?** Learn about cutting-edge [Tools and Technology](#) used in In-Demand occupations.

<p>➤ <a href="#">Find Occupations</a></p> <p>Use keywords or O*NET-SOC codes, Job Families, In-Demand Industry Clusters, O*NET descriptors, Job Zones, STEM disciplines, or Career Clusters.</p>	<p>➤ <a href="#">Crosswalk Search</a></p> <p>Enter a code or title from the CIP, MOC, RAPIDS, DOT, or SOC to find matching O*NET-SOC occupations.</p>
<p>➤ <a href="#">Skills Search</a></p> <p>Use a list of your skills to find matching O*NET-SOC occupations.</p>	<p>➤ <a href="#">Tools &amp; Technology Search</a></p> <p>Use tools and technology to find high demand occupations. Learn about related skills important to employers and educators.</p>

The O\*NET system serves as the nation's primary source of occupational information, providing comprehensive information on key attributes and characteristics of workers and occupations. The O\*NET database houses this data and O\*NET OnLine provides easy access to that information. [Learn more about O\\*NET.](#)

# New Green Occupation Codes

- SOC 47-2230 Solar Photovoltaic Installers
- SOC 49-9080 Wind Turbine Service Technicians

# The “Greening” of Occupations

- **Green Increased Occupations**
  - 68 O\*NET-SOC occupations
- **Green Enhanced Occupations**
  - 57 O\*NET-SOC occupations
- **Green New & Emerging Occupations**
  - 90 O\*NET-SOC occupations

# The Greening of Occupations

## Renewable Energy

- *Green Increased Demand*: power distributors and dispatchers, power systems operators
- *Green Enhanced Skills*: power plant operators, electrical engineers
- *Green N&E*: wind turbine engineer, solar equipment installer



# The Greening of Occupations

## Energy Efficiency Industry

- *Green Increased Demand*: electrical power line installers and repairers, boilermakers
- *Green Enhanced Skills*: heating and ac mechanics, mechanical engineers
- *Green N&E*: occupational roles associated with weatherization or sealing of buildings



# The Greening of Occupations

## Construction Industry

- *Green Increased Demand*: carpenters, electricians, cement masons, concrete finishers, welders, cutters, solders
- *Green Enhanced Skills*: construction managers, civil engineers, building inspectors
- *Green N&E*: energy reduction ex...



# The Greening of Occupations

## Recycling and Waste Reduction

- *Green Increased Demand*: waste management (garbage collector)
- *Green Enhanced Skills*: plant and systems operations
- *Green N&E*: recycling and reclamation coordinator



# The Greening of Occupations

## Manufacturing Industry

- *Green Increased Demand*: drilling, boring, separating, filtering, clarifying, precipitating and still machine tools setters, operators, and tenders
- *Green Enhanced Skills*: industrial and electrical engineering technicians, machinists
- *Green N&E*: manufacturing new products in the biochemistry, microsystems, and photonics sectors



# The Greening of Occupations

## Transportation and Logistics Industry

- Green Increased Demand: railroad conductors, locomotive engineers
- Green Enhanced Skills: automotive specialty technicians, electronics engineers
- Green N&E: fuel cell engineers



# American Recovery and Reinvestment Act

## Competitive Grants for Worker Training and Placement in Careers in Energy Efficiency and Renewable Energy

# Solicitations for Grant Applications (SGAs)

1. State Labor Market Information Improvement Grants
2. Energy Training Partnership Grants
3. Pathways Out of Poverty Grants
4. State Energy Sector Partnerships and Training Grants
5. Green Capacity Building Grants

# State Labor Market Information Improvement Grants

- \$50 million total ETA Investment
- ETA intends to fund individual State grants ranging from approximately \$750,000 to \$1,250,000.

# Energy Training Partnership Grants

- \$100 million total ETA Investment
- \$25 million of the total funds available through this Solicitation will be awarded for projects serving communities impacted by auto industry restructuring.
- Overall ETA will fund 20 – 30 projects ranging from approximately \$2 to \$5 million each.

# Pathways Out of Poverty Grants

- \$150 million total ETA Investment
- ETA intends to fund grants to National nonprofits and local entities ranging from approximately \$3 to \$8 million for national grantees, and grants ranging from approximately \$2 to \$4 million for local grantees.

# State Energy Sector Partnerships and Training Grants

- ETA intends to fund grants ranging from approximately \$2 to \$6 million. For a total investment of \$190 million.
- **\$25 million** of the total funds available through this Solicitation will be awarded for projects serving **communities impacted by auto industry restructuring.**
- **Eligible Applicants:** : The eligible applicants for this SGA are State Workforce Investment Boards in partnership with their State Workforce Agency, local Workforce Investment Boards or regional consortia of Boards, and One Stop Career Center delivery systems.

# Green Capacity Building Grants

- ETA intends to fund between 50 and 100 grants ranging from approximately \$50,000 to \$100,000 that target groups preparing to meet the needs of our country's expanding green industries.

# Region 5 - Chicago

The Green Jobs Initiative Team will lead regional workforce development through clearly defining green jobs in our region and ETA's role in strategic federal, state, and local partnerships.

# State Initiatives

- Wind Power in the Midwest

Muncie, Indiana

Brevini USA, the U.S. subsidiary of an Italian wind turbine manufacturer announced in Oct. 2008 plans for a new facility to make gearboxes. Brevini will invest more than \$60 million to retrofit an existing 60,000-square-foot building and add 150,000 square-feet of manufacturing space at the site in 2011. The facility will create about 450 permanent local jobs with annual pay averaging more than \$46,000.

# State Initiatives

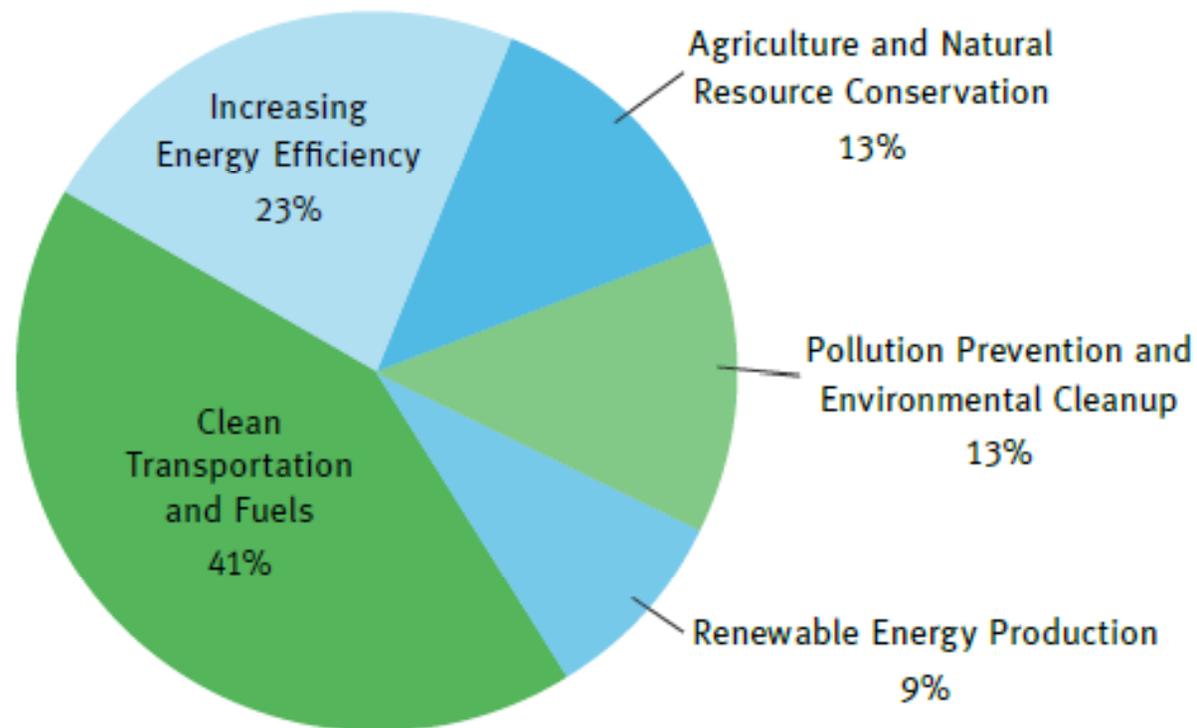
## Newton, Iowa

TPI Composites opened its 316,000-square-foot wind turbine blade manufacturing facility in September 2008. The newly-built plant replaces a former Maytag facility that was closed in 2006, causing huge job losses in Newton. At full capacity, TPI Iowa plans to employ 500 Iowans.

# State Initiatives

- Green Jobs in Michigan

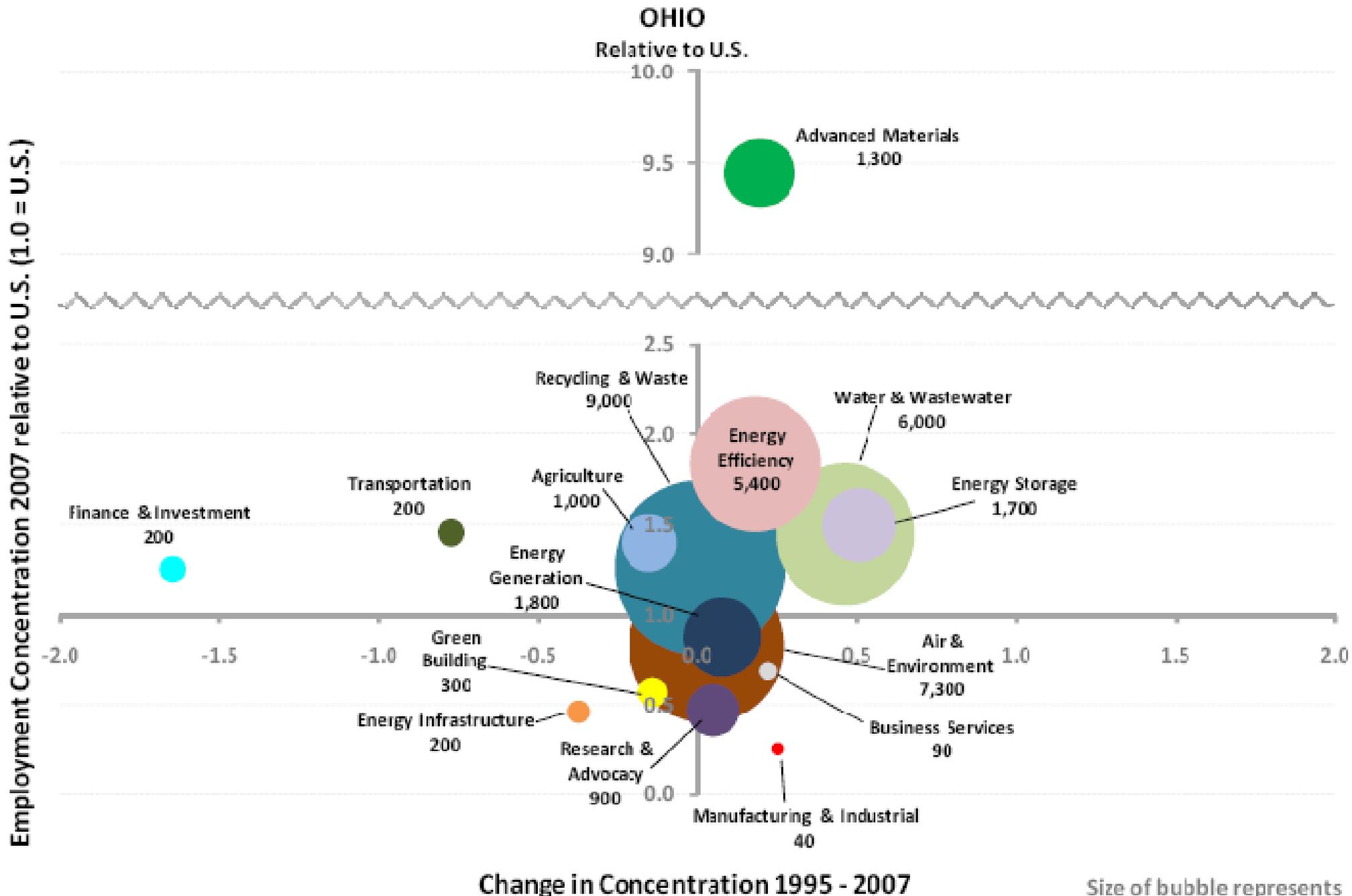
DISTRIBUTION OF DIRECT GREEN JOBS BY CORE AREA



# State Initiatives

- Green Jobs in Ohio
  - Ohio's green economy is characterized by a high business activity in Advanced Materials, a growing concentration in Energy Efficiency and Storage, green technology innovation, and college educational and training programs that prepare workers for green job employment. Its green economy is diversified with growing comparative advantages in many economic segments.

# Employment Concentration by Green Segment



Data Source: Green Establishment Database  
 Analysis: Collaborative Economics

Size of bubble represents  
 2007 employment  
 (Values are rounded.)

# Questions?

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