



# North Carolina Renewable Energy & Energy Efficiency Industries Census 2009

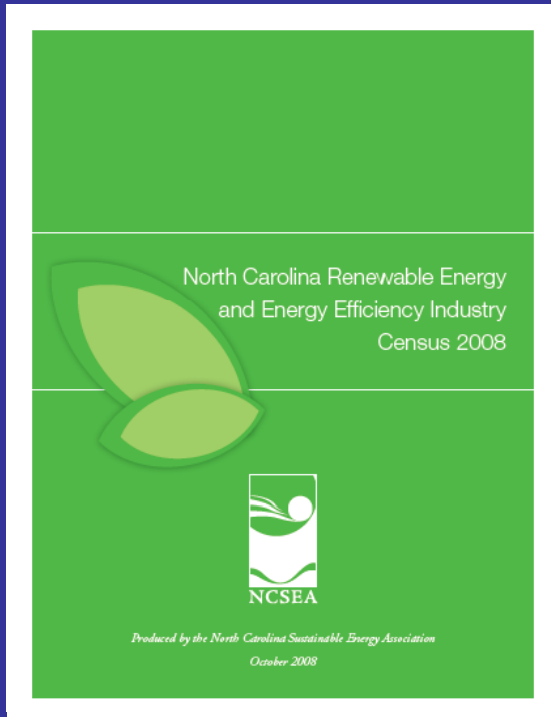
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North Carolina Sustainable Energy Association

NCSEA's Growing NC's Green Energy Economy Forum  
Charlotte Convention Center, NC  
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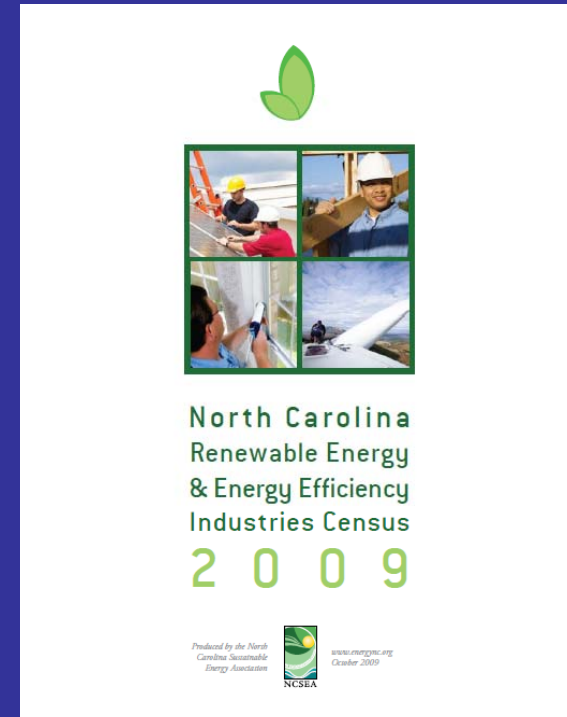


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# Background



NC RENEWABLE ENERGY AND  
ENERGY EFFICIENCY INDUSTRY  
CENSUS 2008



NC RENEWABLE ENERGY AND  
ENERGY EFFICIENCY INDUSTRIES  
CENSUS 2008



# 2009 NC Industries Census

## *Responding Firms*

- Survey via email, mail, and phone of 1,130 NC firms
- 58% survey response rate
  - 548 responding firms met qualifications & 110 responding firms did not qualify
- Data self-reported by participating firms
- Data aggregated by each firm's "primary business type"



# 2009 NC Industries Census

## *Criteria*

- Participants had to meet at least one criteria:
  - Allocate at least 50% of staff time to work related to renewable energy or energy efficiency
  - Generate at least 50% of revenue from work related to renewable energy or energy efficiency
  - Generate at least \$25,000 in economic gain (revenue, avoided costs, etc.) from work directly related to renewable energy or energy efficiency



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# 2009 NC Industries Census

## *Results – The Big Picture*

- Industries employ 10,250 full-time equivalent (FTE) employees
- Despite rising unemployment, respondents report 6% increase in jobs since July 2008
- Firms report a presence in all 100 North Carolina counties
- Industries generate over \$3.5 billion in revenue from NC activities



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# 2009 NC Industries Census

## *Results – NC EE/RE Employment*

### Reported Jobs by Most Important Type of Business (n=519), 2009

Most Important Type of Business	# Responding Firms	% Responding Firms	# Reported Jobs	Avg. Reported Jobs	% Reported Jobs
Research and development	38	7%	985	25.9	18%
Manufacturing	36	7%	1,287	35.8	23%
High performance building or retrofits	205	39%	1,150	5.6	20%
Renewables retailer or distributor	32	6%	193	6.0	3%
Renewables installer, designer, or developer	91	18%	766	8.4	14%
Power generation facility owner or operator	26	5%	373	14.3	7%
Education, services and consulting	91	18%	870	9.6	15%
<b>TOTAL</b>	<b>519</b>	<b>100%</b>	<b>5,624</b>	<b>10.8</b>	<b>100%</b>



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# 2009 NC Industries Census

## *Results – Job Gains, except Manufacturing*

### Net Job Change By Most Important Business Type (n=508), 2009

Most Important Type of Business	# Reported Jobs	Net Job Change Over Past 12 Mos.	% Growth Over Past 12 Mos.	Net Job Change Over Next 12 Mos.	% Growth Over Next 12 Mos.
Research and development	980	113	13%	221	23%
Manufacturing	1,285	-281	-18%	148	12%
High performance building or retrofits	1,145	-21	-2%	299	26%
Renewables retailer or distributor	193	47	32%	353	183%
Renewables installer, designer, or developer	756	163	27%	523	69%
Power generation facility owner or operator	295	55	23%	62	21%
Education, services and consulting	865	216	33%	396	46%
<b>TOTAL</b>	<b>5,519</b>	<b>292</b>	<b>6%</b>	<b>2,002</b>	<b>36%</b>



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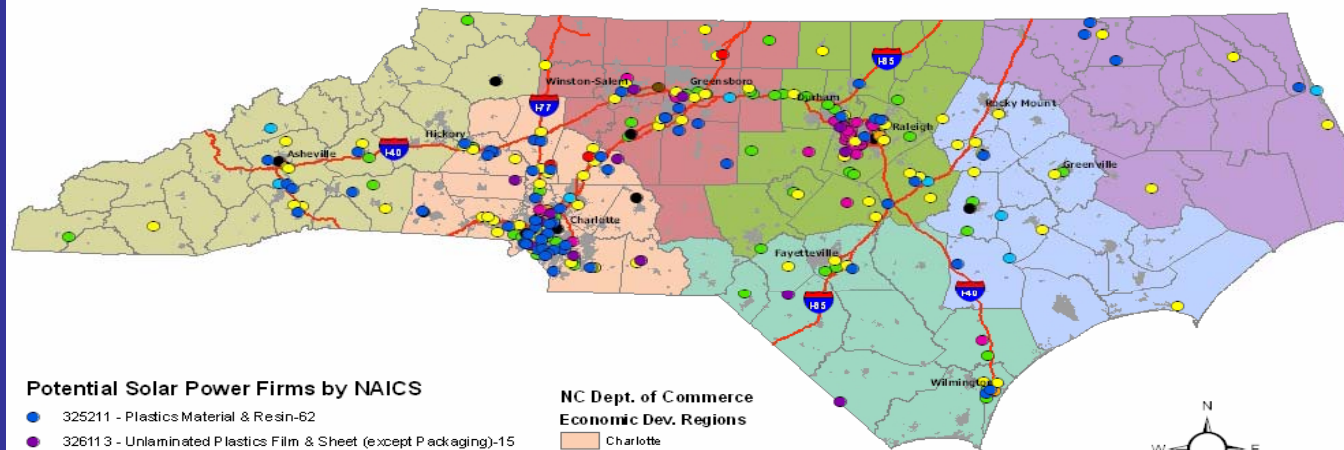
# 2009 NC Industries Census

## Conclusion 1 – Manufacturing Potential Untapped

- Manufacturing is a major, but struggling, component of the supply chain that is not achieving its full potential

### Solar Power: The Potential Supply Chain, 2008

296 Firms in North Carolina

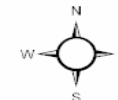


#### Potential Solar Power Firms by NAICS

- 325211 - Plastics Material & Resin-62
- 326113 - Unlaminated Plastics Film & Sheet (except Packaging)-15
- 327211 - Flat Glass-3
- 332322 - Sheet Metal Work-84
- 334413 - Semiconductors & Related Devices-45
- 334515 - Instruments for Measuring & Testing Electricity-6
- 335313 - Switchgear & Switchboard Apparatus-10
- 335911 - Storage Batteries- 2
- 335931 - Current-Carrying Wiring Devices- 8
- 335999 - Electronic Equipment and Components, Misc.-61

#### NC Dept. of Commerce Economic Dev. Regions

- Charlotte
- East
- Northeast
- Piedmont Triad
- Research Triangle
- Southeast
- West
- Municipal Boundaries
- Counties
- Interstates





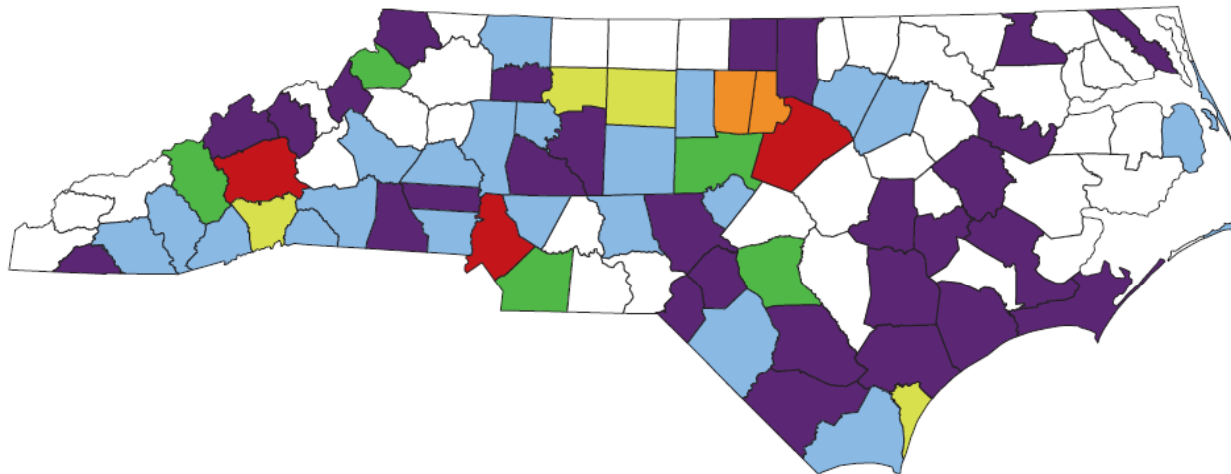
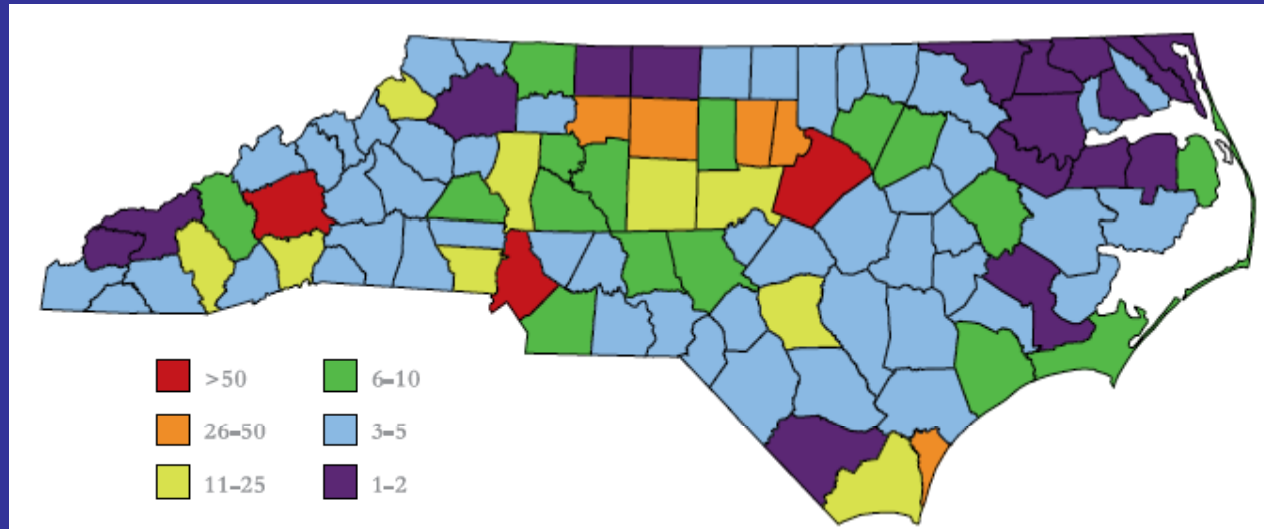
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# 2009 NC Industries Census

## Results – Geographic “Presence” in all counties

### Presence of Responding Firms by County

2008 (n=163)



2009 (n=530)



# 2009 NC Industries Census

## *Results – Delivery of Products & Services*

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Over 70% of firms report North Carolina as the final destination for the majority of their products and services

- **Highest % to NC** = High performance and building retrofits
- **Lowest % to NC** = Manufacturers
- Only 2% of firms report international destinations as their primary market



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# 2009 NC Industries Census

## *Conclusion 2 – NC Policies Enable NC Market*

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- Manufacturing is a major, but struggling, component of the supply chain that is not achieving its full potential
- In absence of federal policy, industries are reliant on the foundation provided by North Carolina policies and ensuing markets



# 2009 NC Industries Census

## *Results – Finance, Regulation top barriers*

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Firms identify access to finance and state regulatory structure as the most important factors for business in NC

*But...*

Many firms are unaware of recent state energy reforms and the associated programs and funding



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# 2009 NC Industries Census

## *Conclusion 3 – Improve Public-Private Dialogue*

- Manufacturing is a major, but struggling, component of the supply chain that is not achieving its full potential
- In absence of federal policy, industries are reliant on the foundation provided by North Carolina policies and ensuing markets
- Communication between government and private sector, and external branding, will be critical going forward



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# Thank you

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