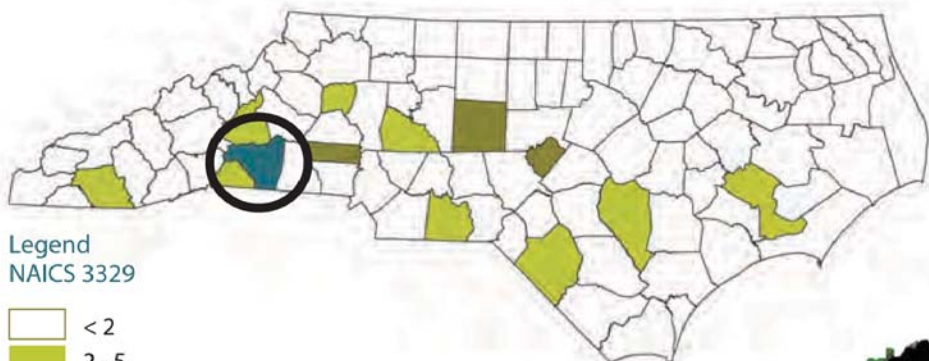
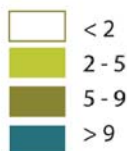


In 2009, Appalachian State University's Energy Center conducted a study that showed which counties have the largest number of manufacturers per sector. Below are the corresponding graphs. Rutherford County is circled.



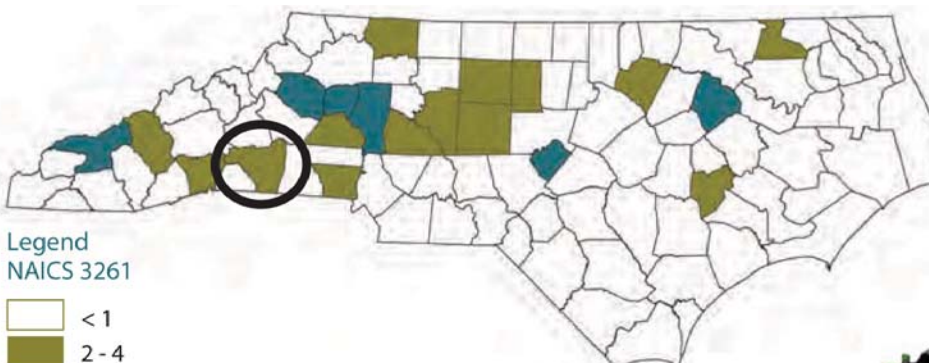
Legend
NAICS 3329



Map: Appalachian State University Energy Center 2009;
Data: Census Bureau, County Business Patterns 2006

Fabricated Metal Products

Metal products, especially bearings, are essential in all mechanically driven electricity generating machinery, including turbines powered by wind or steam from biomass combustion. A new \$17 million Houston, TX facility will make wind turbine bearings from 8 feet to 14 feet in diameter. Several county economies have high concentration of bearing manufacturer employment, **especially Rutherford County.**



Legend
NAICS 3261



Map: Appalachian State University Energy Center 2009;
Data: Census Bureau, County Business Patterns 2006

Plastic Products

Plastics are a major component throughout the supply chain of renewable energy technologies, including major components such as the nacelle case and a large portion of turbine blades for wind turbines, as well as the rear surface that holds together the semiconductor cells in the PV module. Over 20 counties have some specialization in plastics, **including Rutherford County.**



Legend
NAICS 3315



Map: Appalachian State University Energy Center 2009;
Data: Census Bureau, County Business Patterns 2006

Foundries

Foundries produce key structural components for wind turbines, including the rotor hub, blade extenders, nacelle frame and tower flange. Components used in wind turbines are both remarkably large and extremely heavy, have highly engineered requirements such as high-impact strength in extreme low temperatures, and are of limited availability as few facilities have production capabilities. Only three counties have more than two foundries, **particularly Rutherford County.**