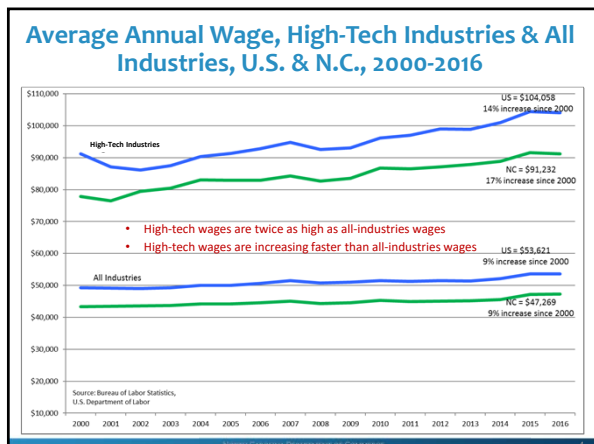
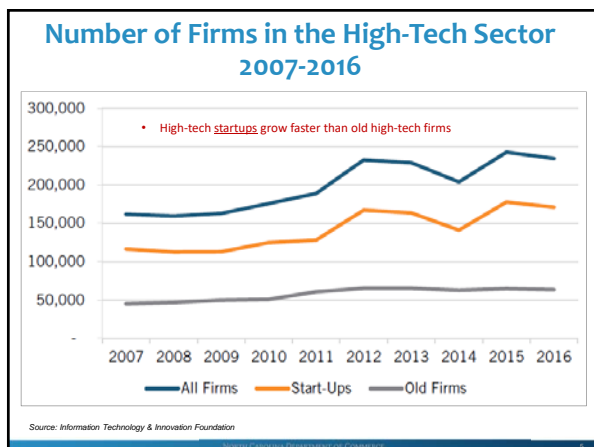


What is Innovation?

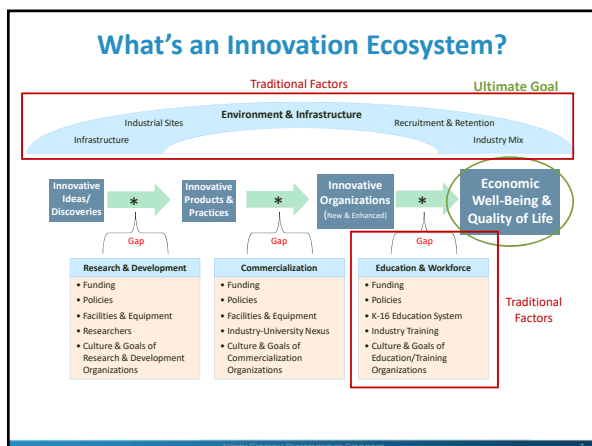
- **Innovation**: something new that adds value; or, the creation & adoption of new products, services, and business models to add value
- Innovation comes primarily (but not solely) from:
 - **science** (systematic knowledge)
 - **technology** (practical/creative application of knowledge)
- Between one-third to one-half of **economic growth** in U.S. is attributed to innovation (Source: U.S. Department of Commerce 2012)
- Innovation has big (5x) **multiplier effect** (across sectors & skill levels)
 - Due to **higher wages & higher growth**, primarily from **traded sectors**
 - e.g., If Inmar adds a Data Scientist job in Winston-Salem → more jobs for waiters, landscapers, store clerks, painters, etc., **but not vice-versa**





Innovation is the Economic Accelerator for NC

Innovation occurs most *efficiently* and *effectively* in a vibrant, healthy **innovation ecosystem**



Measures & tracks 40 innovation-focused factors across NC's innovation ecosystem

Available at:
www.nccommerce.com/sti

2017 Index to be released later this month

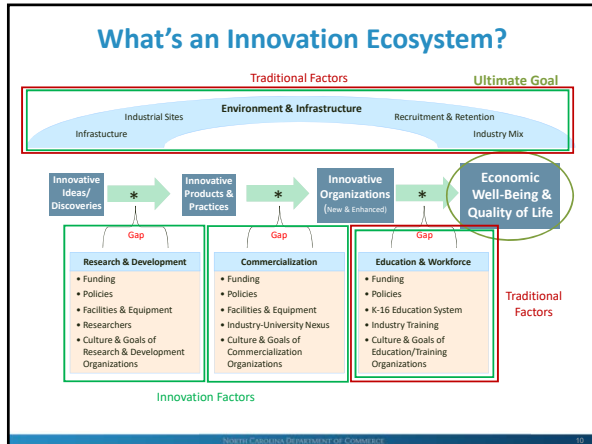
Which Factors Matter Most for Economic Prosperity?

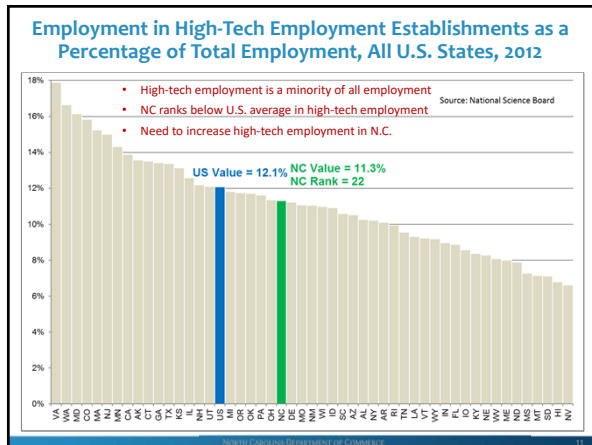
Which factors have largest impact on three economic well-being variables:

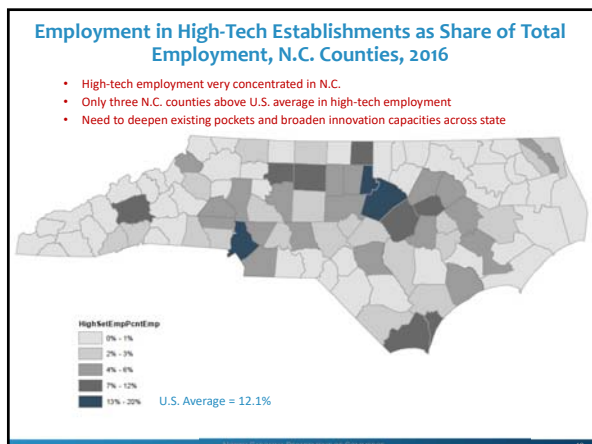
- Per capita GDP
- Per capita personal income
- Average annual pay

Using SAS Visual Statistics, we found three factors statistically significant for predicting changes in economic well-being variables across all U.S. states:

- Proportion of workers in high-tech industries
- Proportion of workers in science & engineering occupations
- Proportion of population with post-secondary educational attainment







Innovation-Based is from Different from (but complimentary to) Traditional Economic Development

Areas of Difference	Traditional Economic Development	Innovation-Based Economic Development
Labor/Workforce Needs	Skilled- and/or unskilled-labor (traditionally unskilled)	<ul style="list-style-type: none"> • Skilled- or highly skilled-labor • More-educated workforce
Capital (Machinery/Equipment & Financial) Needs	<ul style="list-style-type: none"> • Big Business=big/physical capital • Expansion capital 	<ul style="list-style-type: none"> • Small business=earlier-stage/ smaller/financial capital • Scientific/technical capital
Land/Resources Needs	<ul style="list-style-type: none"> • Real estate • Infrastructure • Energy/utilities 	<ul style="list-style-type: none"> • Research parks • Free- or co-working space • Accelerators & incubators
Costs of Doing Business	Tax breaks (costs in future)	Grants (costs today)
Gains of Doing Business	<ul style="list-style-type: none"> • New companies & jobs (now) • Big business relocation • News headlines 	<ul style="list-style-type: none"> • New companies & higher-productivity jobs (over time) • New technologies! • Small firms lure big firms!
Shortfalls of Doing Business	<ul style="list-style-type: none"> • Success is costly • Attempts not always successful 	<ul style="list-style-type: none"> • Short-term impacts may be small • Risky (expect failure/loss)
Primary Activities	Recruiting/Retaining/Expanding	Fostering/Connecting/Championing
Stereotypes	<ul style="list-style-type: none"> • "Smokestack chasing" • "Beggars-ty-neighbor" • "Picking winners" 	<ul style="list-style-type: none"> • "Gazelles," "Unicorns" • "Urban-focused" • "Industry disruptive"

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Examples of Innovative ED Activities in NC

Sector/Industry	Mountains	Piedmont	Coast
Biotech			
Materials/Engineering			
Energy/Green			
Tech			
Agriculture & Food			
E-ship & Innovation Activities and Spaces			
E-ship & Innovation Support Organizations			
Universities			
Statewide Funds (Examples)	<ul style="list-style-type: none"> • One NC Small Business Program • NC Green Business Fund • NC Biotech Center Grant and Loan Programs • NC IDEA Seed & Ecosystem • Community Innovation Fund (proposed) 		

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