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Moving Forward: The Challenge of the Future

PlanSmart New Jersey: 2014 Regional Planning Summit

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Information Technology and Innovation Foundation
ITIF is a public policy think tank committed to articulating and advancing a pro-productivity, pro-innovation, and pro-technology public policy agenda internationally, in Washington and in the states. ITIF focuses on:

- Innovation processes, policy and metrics
- Science policy related to economic growth
- E-commerce, e-government, e-voting, e-health
- IT and economic productivity
- Innovation and trade policy
- Clean energy
Today’s Presentation

1. What is Innovation and Why Does it Matter?

2. What’s Happened to the U.S. Innovation Economy?

3. How is New Jersey Faring?

4. How States & Regions Can Spur Innovation-Based Growth
Innovation Economics: The Race for Global Advantage
Innovation Myths and Realities

1. **Innovation is only about new or better products and services ...**
   
   *It’s about transforming existing conditions into preferred ones...*

2. **Innovation is risky...**
   
   *Failure to innovate is what is risky...*

3. **Innovation is expensive, demanding lots of resources...**
   
   *Failure to innovate is what is costly...*

4. **Failure is unacceptable...**
   
   *Failure has value so long as it generates useful learning.*

"I have not failed. I've just found 10,000 ways that won't work."

~ Thomas Edison
Innovation Isn’t “Manna from Heaven”

There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things.

— Niccolo Machiavelli, The Prince
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U.S.: Worst Recession Since the 1930s

Percent Job Losses in Post WWII Recessions

Current Employment Recession

Dotted Line ex-Census Hiring

Number of Months After Peak Employment

http://www.calculatedriskblog.com/
Caused by Deep Manufacturing Job Losses in the 2000s
Many Fewer Major Industrial Manufacturing Relocations & Expansions To Go After

Average Annual U.S. Industrial Relocations, Source: Innovation Economics, ITIF, 2012
Countries and States Have Become Price Takers in Global Markets
U.S. Now a Less Attractive Location for Investment

- Highest corporate tax rate in the OECD
- 27th most generous (& unstable) R&D tax credit
- Stagnant science funding (22nd in university research funding)
- Faltering education system (23rd in science education)
- Inadequate physical infrastructure (23rd in quality)
- Counter-productive high-skill immigration policy
The Study: compares innovation-based competiveness of 44 nations and regions.

16 indicators: including corporate and government R&D, scientists and engineers, new firms, corp. tax, productivity growth and others.
Overall Score for Global Competitiveness and Innovation
Near Bottom at Improving Innovation Capacity

Change Score: 2000-2010

- China
- S. Korea
- Cyprus
- Slovenia
- Estonia
- Latvia
- Singapore
- EU-10
- Portugal
- Hungary
- Lithuania
- India
- Austria
- Chile
- Greece
- Japan
- Slovakia
- Finland
- Denmark
- Australia
- Indonesia
- Ireland
- UK
- Brazil
- Mexico
- Poland
- EU-25
- Netherlands
- Turkey
- Spain
- Argentina
- Russia
- Canada
- Malaysia
- EU-15
- France
- Germany
- Sweden
- Belgium
- NAFTA
- South Africa
- U.S.
- Italy
Weaknesses of the U.S. Innovation System

1. Believe we’ll always be #1 without having to do anything about it.

2. Don’t believe we’re in economic competition with other nations.

3. We lack a political consensus that technology and innovation drive economic growth.
   - We demean proactive innovation-promoting policies as “industrial policy.”

4. We believe markets acting according to price signals alone will generate all the innovation society needs.

5. We’re more concerned with redistributing the pie than growing it.
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The 2014 State New Economy Index assesses U.S. states on 25 indicators, divided into five key areas, that best capture what is new about the New Economy:

1. Knowledge jobs
2. Globalization
3. Economic dynamism
4. The digital economy
5. Innovation capacity
The Leading States in the 2014 Index:

1. Make significant investments to support key “building blocks of innovation”: infrastructure, education, and scientific research;

2. Have companies/industries oriented toward global markets, in terms of exports and FDI;

3. Are at the forefront of the ICT revolution, both with regard to ICT usage and production;

4. Have large concentrations of knowledge workers;

5. Attract high levels of domestic and foreign migration of those knowledge workers.
New Jersey in the 2014 State New Economy Index

Scores Best:
- Foreign Direct Investment (5th)
- Fast-Growing Firms (5th)
- Patents (Per Worker) (6th)
- Broadband Telecommunications Adoption (6th)
- Industry Investment in R&D (7th)

Scores Weakest:
- Non-Industry Investment in R&D (40th)
- Manufacturing Value-Added (39th)
- Entrepreneurial Activity (37th)
- Health IT (37th)
- E-government (31st)
Historical New Jersey SNEI Ranks

- 1999: 8th
- 2002: 6th
- 2007: 2nd
- 2010: 4th
- 2012: 10th
- 2014: 10th
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Maximizing Innovation-Based Economic Growth

1) Embrace “Innovation Economics”

“Productivity growth is the single most important factor to our economic well-being. *But it is not a policy issue, because we are not going to do anything about it.*”

Paul Krugman

- The central goal of economic policy should be to spur higher productivity and greater innovation.

- Markets relying on price signals alone will not always be as effective as smart public-private partnerships in spurring higher productivity and greater innovation.

Joseph Schumpeter
2) Master the “8 I’s” of Innovation Policy

1. Inspiration – Set ambitious goals.
2. Insight – Learn from the best practices of others.
3. Intention – Commit to specific actions.
4. Investment – Increase funding for innovation/productivity.
5. Incentives – Incent desired firm and individual behaviors.
7. Information Technology – ICT as an innovation platform.
3) Get the “Innovation Triangle” Right
1. Vibrant capital markets;
2. High levels of entrepreneurship;
3. Strong management skills;
4. Strong ICT adoption, especially among business;
5. Embrace dynamic churn and change (e.g. creative destruction).
1. Transparent policies (including regarding land use policies);
2. Reasonably enforceable property rights;
3. Make it easy to start and operate businesses;
4. Support pro-competition regulatory policies and foster economic clusters.
Regulatory Principles for the Innovation Economy

1. Anticipate innovation;
2. Embrace transparency;
3. Trust the customer;
4. Try to avoid Type I errors;
5. Adhere to cost/benefit analysis.
1. Strong STEAM-D education approach;
2. Active policies to spur digital transformation;
3. Incentives to invest in R&D, capital equipment, workforce training;
4. Supporting technology transfer from universities to private sector
5. Funding for research, especially that which is commercially-oriented.
- **4) Just Remember the “4 Ts”**

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Collaboration is Essential

- For many states/regions/cities, the main competition isn’t the one next door—it’s half a world away.

- Everyone has to collaborate/coordinate to create a more competitive environment for NJ/U.S. enterprises.
Thank You

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