

Research Capacity: What Is It?; Whose Problem?

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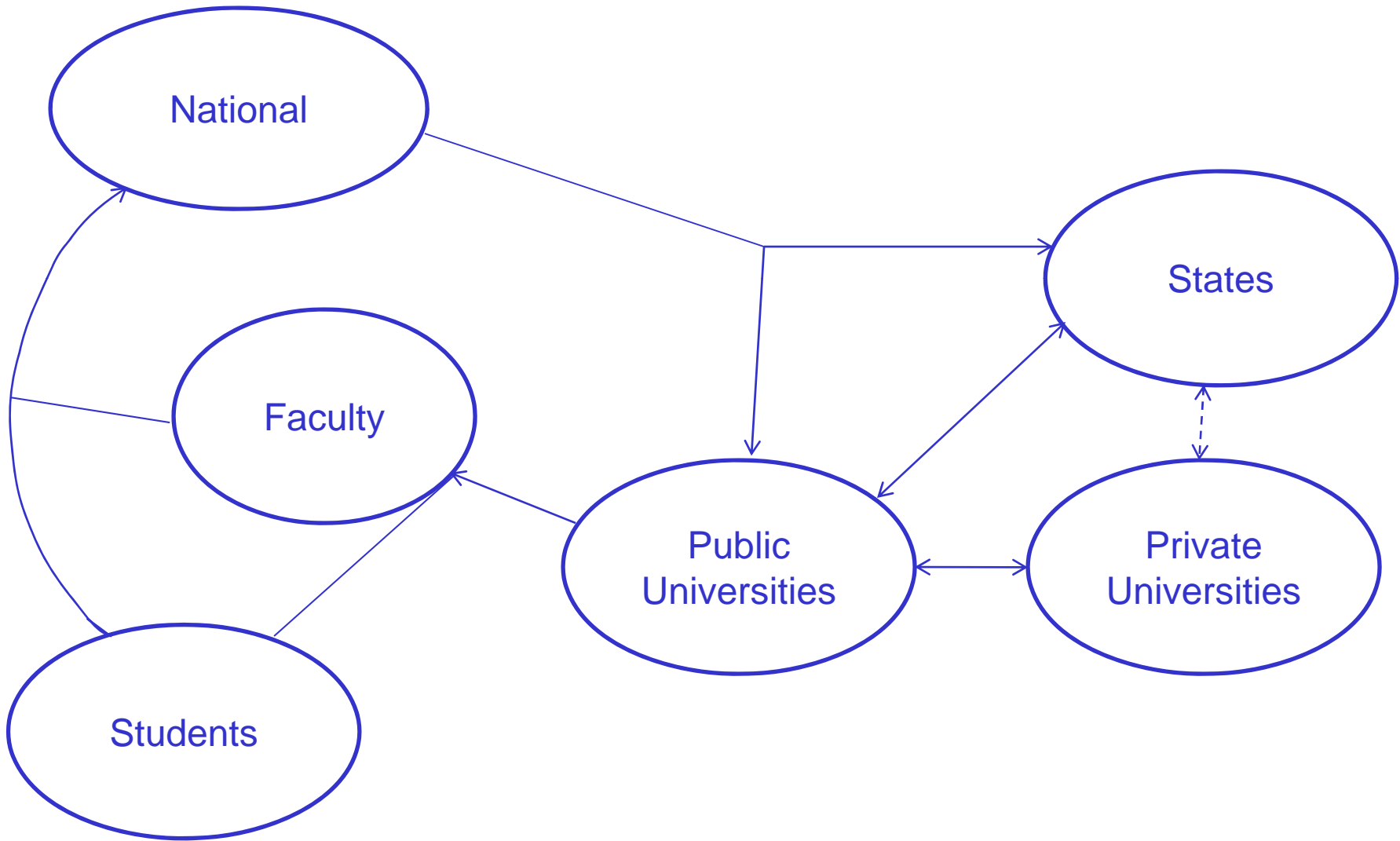
Outline

- This Time is Different. Why?
- Whose Problem?
- Recalibrating the Problem

Capacity is a Baggy Term

- “Actual or potential ability to perform, yield or withstand”
- Is it sufficient SUPPLY to meet current and projected needs?
- Is it POTENTIAL to do more, if funded, than currently called upon ?

Whose Problem?



Perennial Practical/Policy Problems

- Too Few Dollars or Too Many Researchers?
- Too Many Upwardly Aspiring Research Oriented Universities?

1991 AAAS Colloquium

- “Science: The End of the Frontier?”-Lederman
- “Policy Experts Ask a Heretical Question: Has Academic Science Grown Too Big?”-Cordes

1992 AAAS Colloquium

“A ‘Market Shakeout’ in Research and
Education: Is it in the Cards?
Is it Underway?”

What Is Different This Time

- Previous analysis/laments related to level, rate of growth and distribution of Federal support of academic research
- Current challenges/stresses relate to the “Conscious and Unconscious Restructuring of Markets” Caused Largely by Structural Declines in State Government Support of Public Universities

Levels and Rates at the Endless Frontier

- “Research Holds Up Well in Final 2011 Agreement”, Science 15 April 2011
- Pennsylvania: Governor Corbett’s budget proposes 52% reduction in General Fund appropriation for Penn State
- “Crisis of the Publics”

Implicit State Government Higher Education Strategy

- Pay Marginal Costs of Academic Research Related to Economic Growth
- Privatize Costs of Undergraduate Education

Increase in Number of Research Intensive Universities

“At the end of world World War II, perhaps six American universities could be called research universities, in the sense that research was the dominant faculty activity...By the early 1960s, there were about 20 research universities and they received half of all federal research and development funds going to higher education. In the year 2000, there were at least 100, and many more were aspiring to this status”

(C. Kerr (2002), The Gold and the Blue, Vol. II, p.92)

University Strategy

Build It and It Will Come

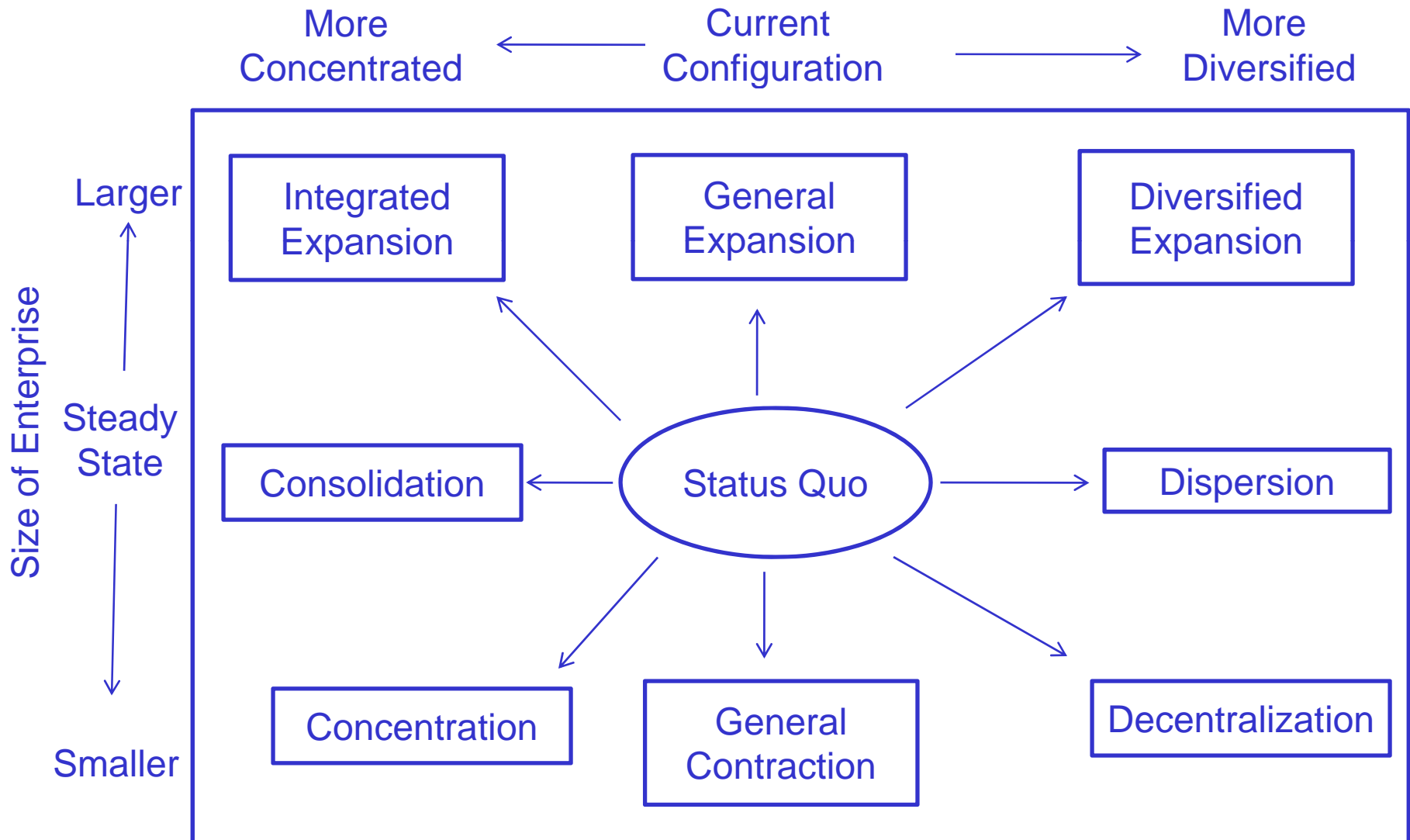
UNC-Greensboro & NC A&T—Joint
School of Nanoscience &
Nanoengineering

Being and Becoming a Research-Intensive University

- Institutional Funds Constituted 20% (\$10.4B) of Academic R&D in FY 2008
- Institutional Share Increased from 12% in 1972 to 19% in 1991; Relatively Unchanged Since Then

System-level Capacity Scenarios

Structure of Enterprise



Recurrent Capacity-Related Issues

- Number of Research Intensive Universities
- Institutional/Geographical Concentration
- Need and Scale of Capacity-building Programs
- Reputational Movements

Implications of Current Trends

- Stable, Possibly More Concentrated System
- Increased “Share” for Private Research Universities, Constrained by Institutional Capacities & Strategies

New Problem(s)

- Why would anyone want to become a faculty member?
- Accessibility and Affordability of Undergraduate Education

Policy Implications for S&T

- Wait....and Vote
- Shift Federal Support from Capacity Building Programs to Fellowships