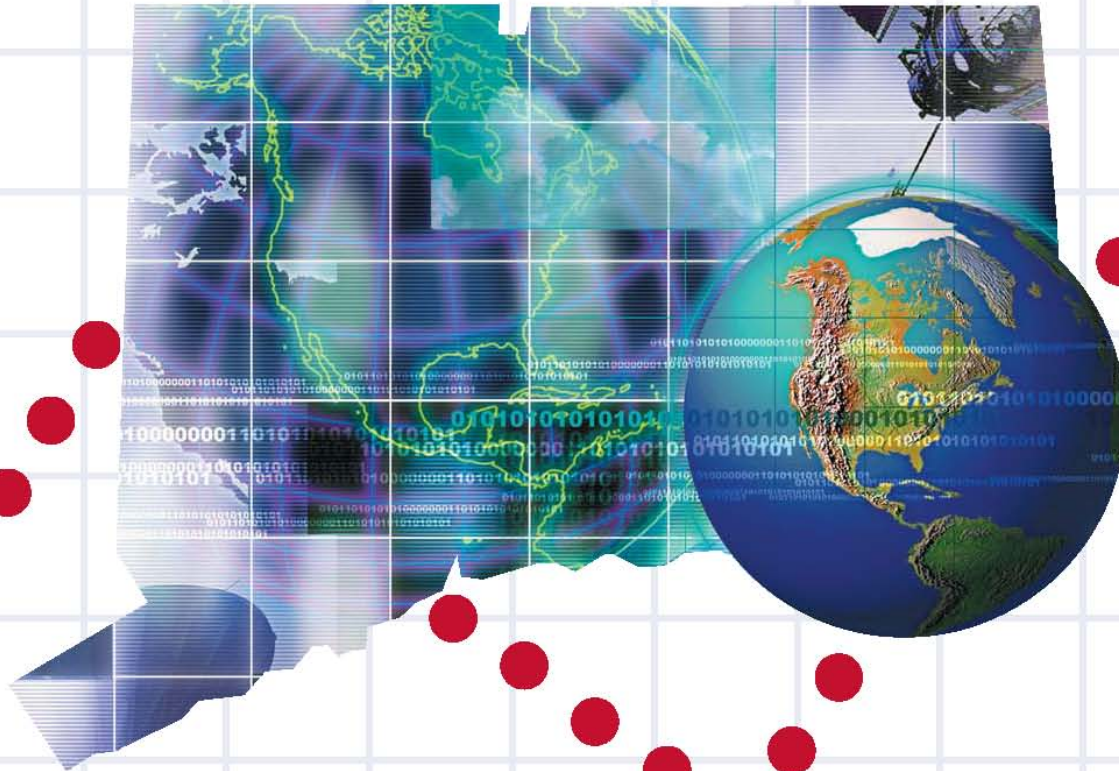


BENCHMARKING CONNECTICUT 2006: DETERMINANTS OF ECONOMIC GROWTH





Benchmarking Connecticut 2006: *Determinants of Economic Growth*

November 30, 2006

Benchmarks Structure

- ▶ Five categories, two dimensions:
 - ▶ *Entrepreneurial & Business Vitality (9)*
 - ▶ *Technology (6)*
 - ▶ *Financial (5)*
 - ▶ *Human Capital (7)*
 - ▶ *Global (8)*

2006 Benchmarks Update

	Concentration		Growth	
	2005	2006	2005	2006
Entrepreneurial & Business Vitality	9	11	42	44
Financial & Capital Resources	13	14	45	42
Technology Strengths	2	2	36	36
Human Capital Resources	5	7	35	41
Global Links	7	12	29	37
OVERALL	7	8	43	44

2006 Research: Economic Growth

- ▶ How do we define growth?
- ▶ Why do we care about growth?
- ▶ What is impacting growth in our economy?
- ▶ Where can state and regional policymakers have the greatest impact?

Defining Growth

- ▶ Traditional metrics (state GDP per capita, income growth) explain part of the story
- ▶ Other metrics (income distribution, entrepreneurial activity) provide additional insights
- ▶ Need to use and understand both

Economic Growth is Essential

- ▶ Opportunity
- ▶ Improved standard of living for all
- ▶ Stronger tax base
- ▶ Reduced need for assistance
- ▶ Basis for change and innovation

Determinants of Economic Growth

- ▶ Exogenous forces
 - ▶ *Globalization and economic shifts*
 - ▶ *National policies*
 - ▶ *Technology*

- ▶ Regional and State Trends
 - ▶ *Job growth*
 - ▶ *Demographic shifts*
 - ▶ *Business growth*

- ▶ Urban Markets

Determinant 1: Globalization

- ▶ Global markets are reshaping labor demand and pricing power
- ▶ Evolving from a 9-5 world to a 24/7 world
- ▶ Economic restructuring impacting incomes
- ▶ Opportunities and threats

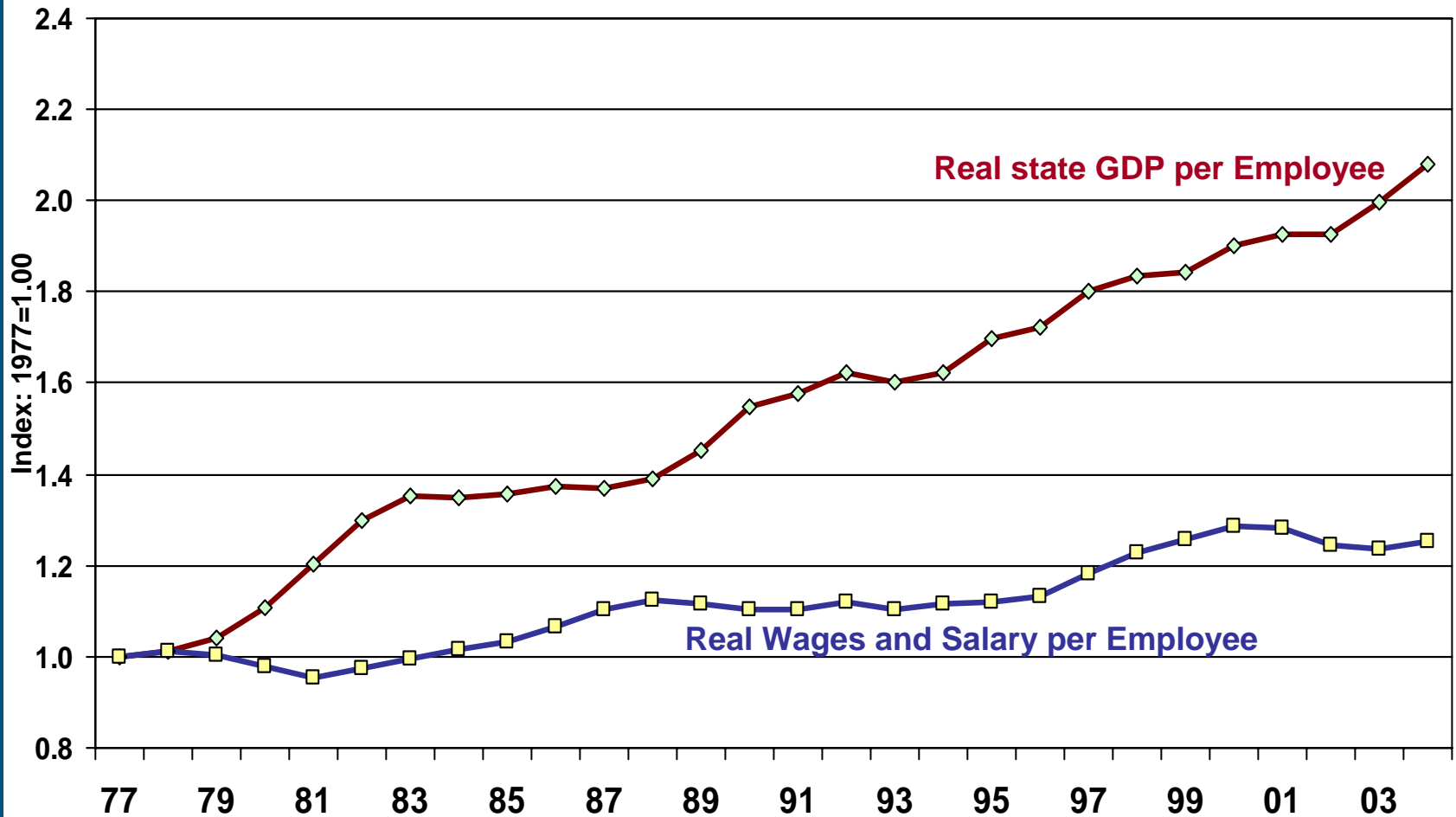
Economic Shift: Income Distribution

- ▶ Increasing disparities
- ▶ Urban decline, suburban growth
- ▶ Low wage vs. high wage jobs
- ▶ Median vs. average
- ▶ Income gap growth and employment growth

Economic Shift: Productivity and Jobs Paradox?

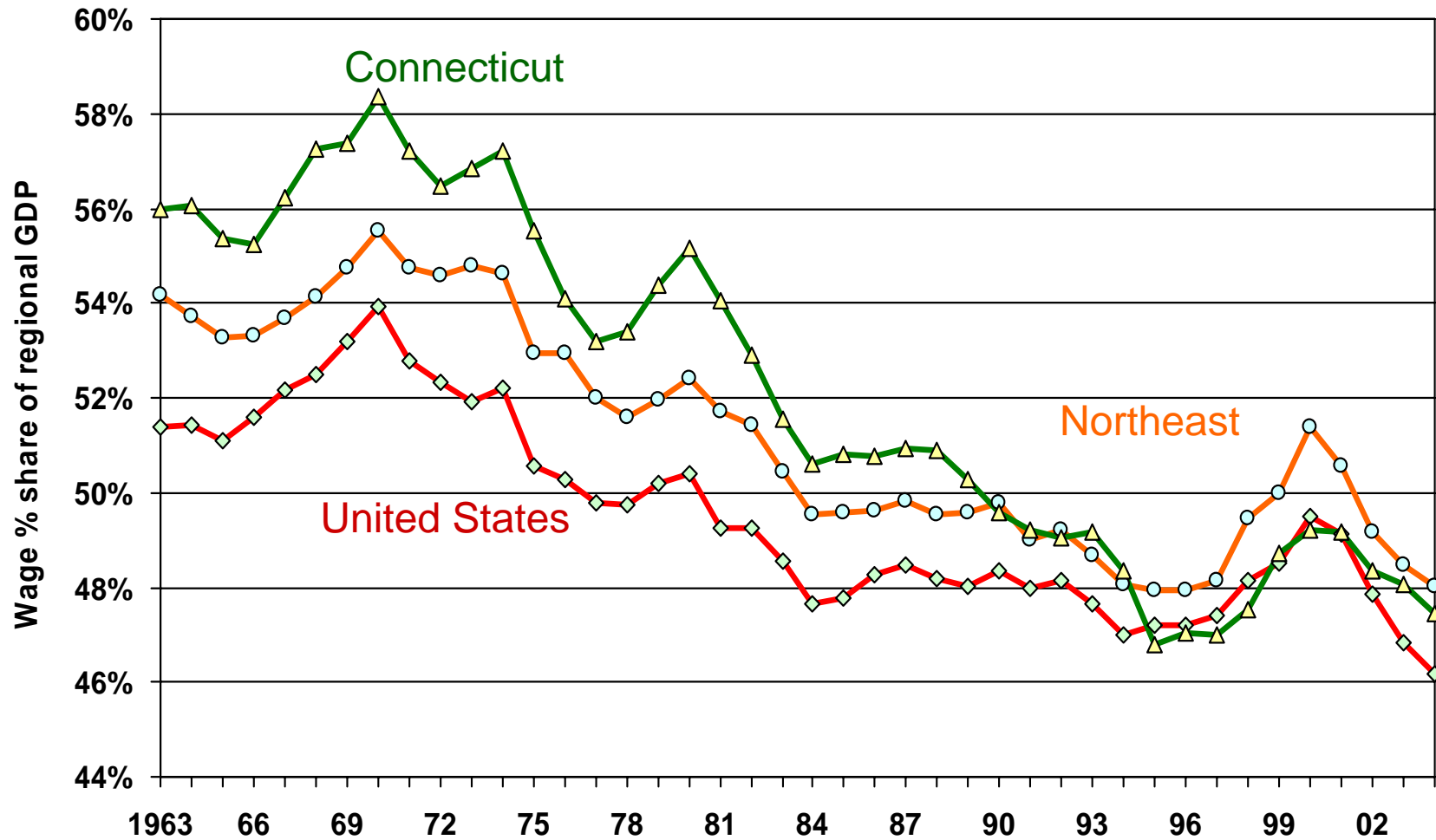
- ▶ One of the most productive economies in the world (state GDP per capita)
- ▶ Highest per capita income
- ▶ Effect on job and business growth

Economic Shift: Productivity and Income Paradox?



Source: U.S. Bureau of Economic Analysis; Calculations by CERC

Economic Shift: Wages as a Share of GDP



Source: U.S. Bureau of Economic Analysis; Calculations by CERC

National Policies

- ▶ Trade
- ▶ Migration
- ▶ Basic R&D investments
- ▶ Educational loans and grants
- ▶ Budget deficit
- ▶ Unfunded mandates
- ▶ Defense/BRAC

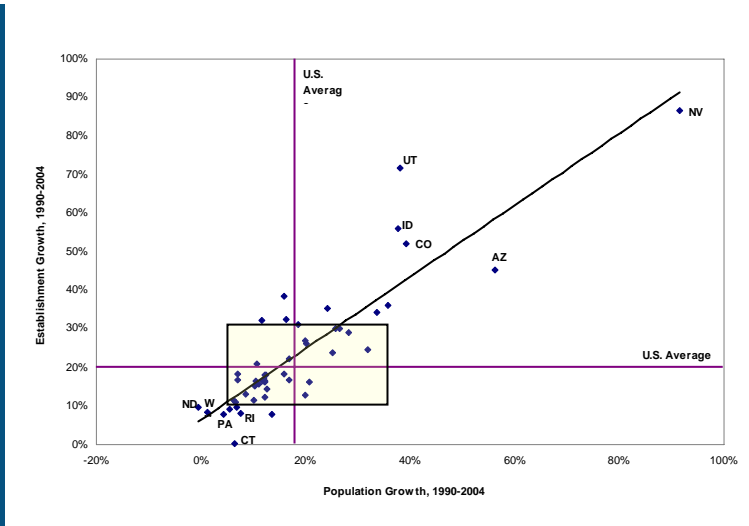
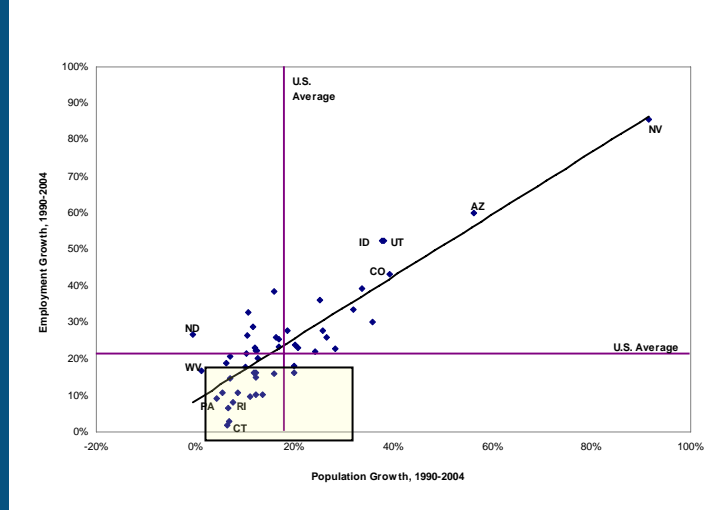
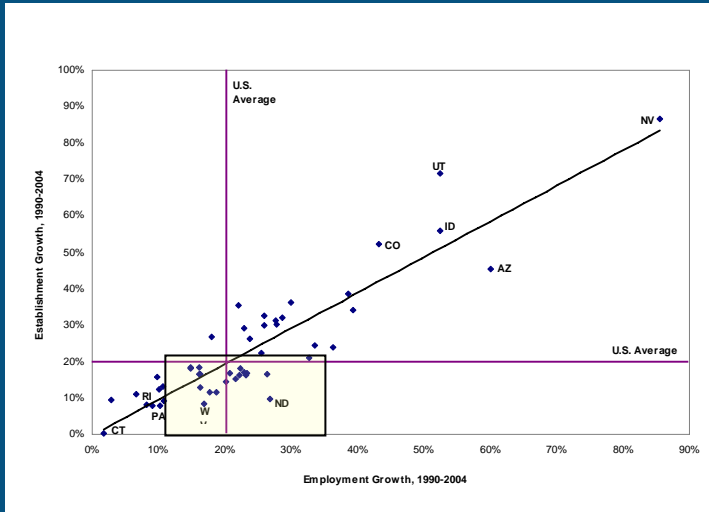
Technology Improvements

- ▶ Critical for innovation and growth
- ▶ Productivity enhancement
- ▶ Manufacturing accounts for most technology patents
- ▶ Outsourcing of production and service jobs

Determinant 2: Selected Regional Similarities

- ▶ Manufacturing legacy
- ▶ Demographic makeup
- ▶ Snow belt
- ▶ Strong sense of home rule
- ▶ Declining political influence nationally
- ▶ Slow population and job growth
- ▶ High relative costs
- ▶ “Weak market” cities

Change in Population, Jobs and Businesses are Related



Sources: U.S. Bureau of Labor Statistics, U.S. Census

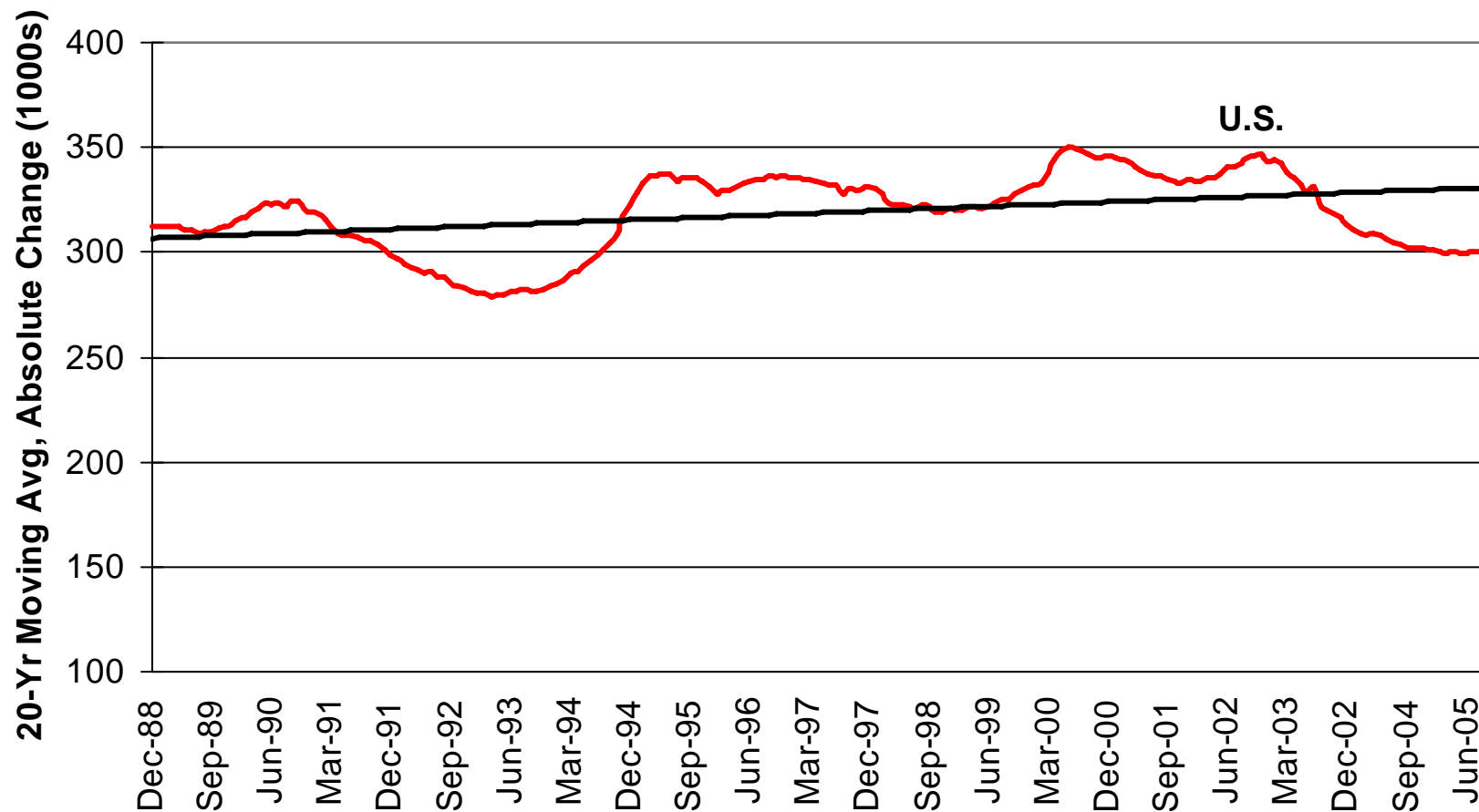
Cause or Effect?

- ▶ Flat population growth → flat job growth
- ▶ Changing demographics → flat population growth
- ▶ Flat population growth → negative business growth
- ▶ Negative business growth → flat job growth
- ▶ Negative business growth + job loss → urban decline
- ▶ Urban decline → negative business growth + job loss

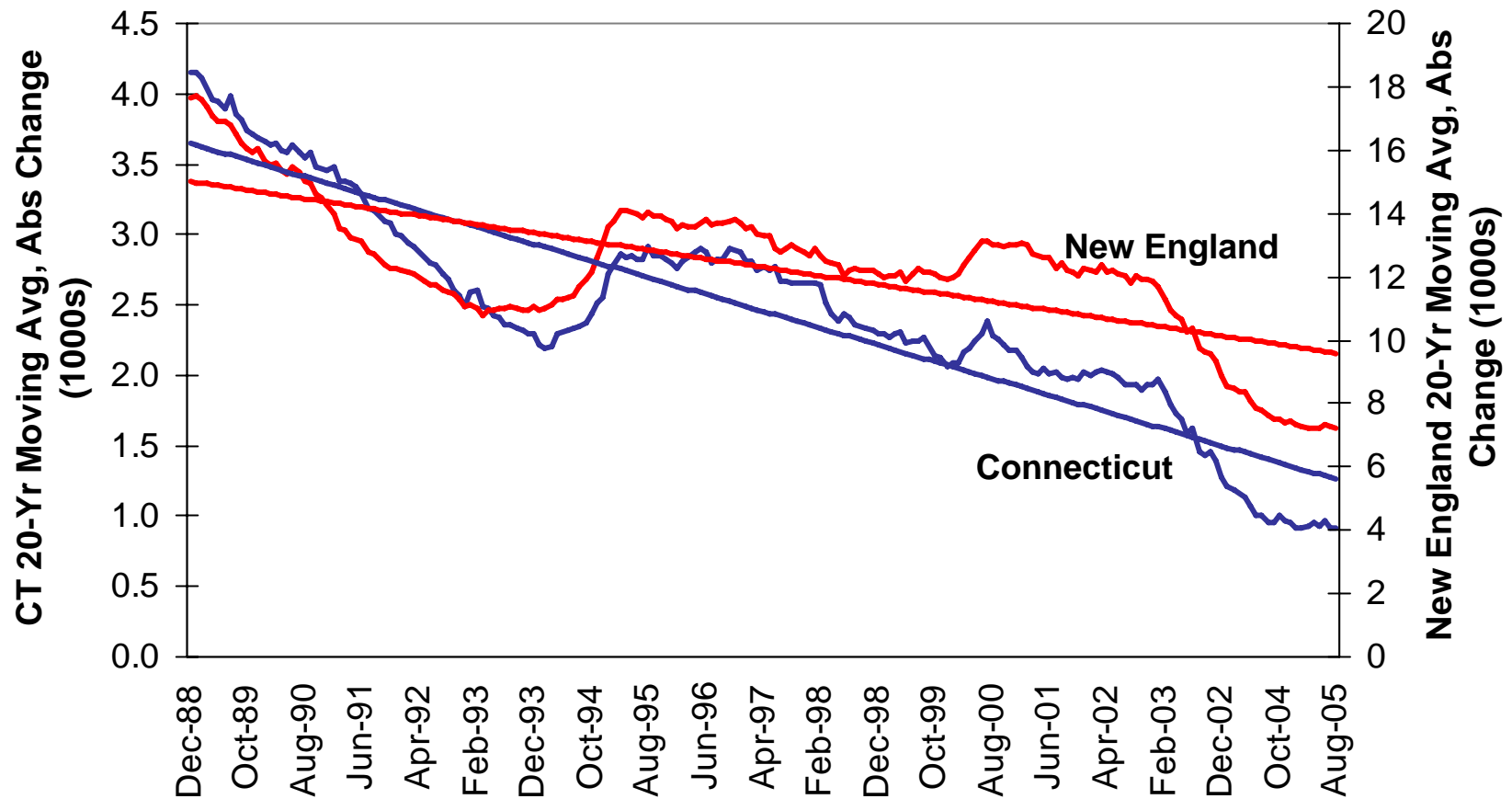
Regional Differences in Employment Growth

	Average Annual Growth Rate (%)					
	U.S.	Northeast	Midwest	South	West	Connecticut
1950-59	2.44	0.90	3.13	2.65	4.12	1.78
1960-69	2.98	2.00	2.66	3.87	3.83	3.00
1970-79	2.79	1.01	2.15	3.95	4.34	1.73
1980-89	1.95	1.60	1.31	2.40	2.44	1.73
1990-99	1.82	0.66	1.75	2.35	2.16	0.31
2000-05	0.27	-0.13	-0.40	0.58	0.85	-0.36

Long-term increase in national job growth



Long-term decline in job growth

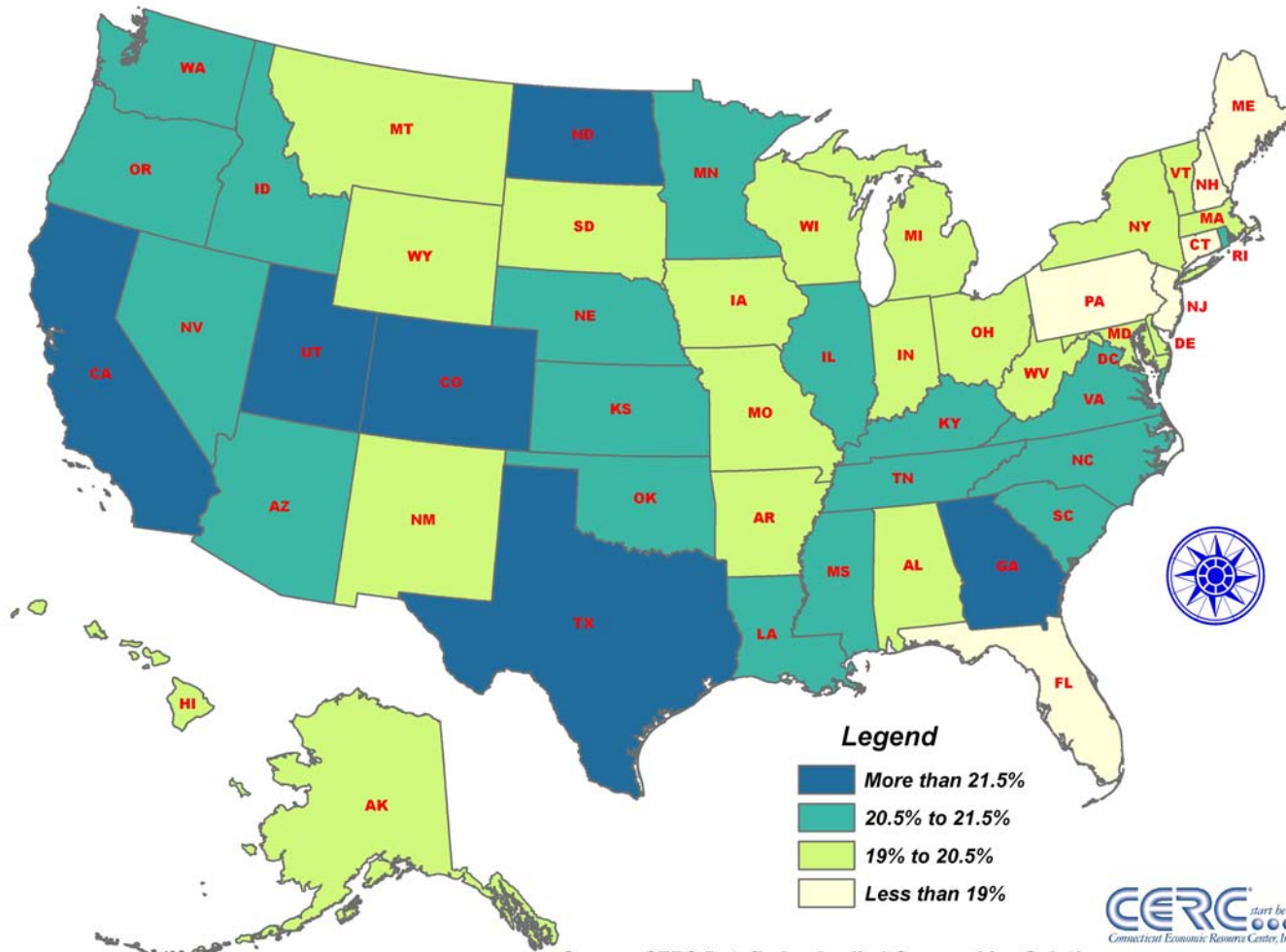


Demographic Shifts

- ▶ Aging state
 - ▶ Greatest relative loss of 18-34 cohort
 - ▶ Net exporter of college freshmen
 - ▶ Out-migration of young professionals
- ▶ Declining human capital stock and income
 - ▶ Projected weak educational attainment
 - ▶ Reduction in personal income

Share of 20-34 Year Olds

Share of Population that is 20 to 34 years old, 2005



Source: CERC Datafinder Applied Geographics Solutions

Regional Business Growth Less than One-Half of U.S.

Region	Establishments		% U.S. Establishments		Establishment Growth, 1989-2004	
	1989	2004	1989	2004	#	%
U.S.	6,107,413	7,387,724	100.0%	100.0%	1,280,311	21.0%
Northeast	1,332,756	1,454,736	21.8%	19.7%	121,980	9.2%
Midwest	1,426,941	1,675,608	23.4%	22.7%	248,667	17.4%
South	1,998,066	2,536,867	32.7%	34.3%	538,801	27.0%
West	1,329,672	1,700,995	21.8%	23.0%	371,323	27.9%
Connecticut	94,178	93,011	1.5%	1.3%	-1,167	-1.2%

Growth Factors

	Jobs	Businesses
Ratio of Business Failures to Business Starts	-	-
Share of Population Age 25-34 Years Old	+	+
Share of Income Held by Bottom Fifth of Households	+	+
Median Housing Value		-
Average Annual Pay	-	-
Similarity to U.S. Industry Mix	+	+
Unemployment Rate	+	+

Technology Business Growth Factors

- ▶ Technology Transfer (university-business)
 - ▶ R&D Resources
 - ▶ Investment Capital
 - ▶ Entrepreneurial Culture
 - ▶ Science and Engineering Workforce

Housing Affordability is a Regional Issue

	Median Household Income, 2005	Median Value Owner-Occupied Housing, 2005	Ratio of Median Housing Value to Median Household Income	50 State Rank - Ratio of Median Housing Value to Median HH Income
U.S.	\$46,242	\$167,500	3.62	N/A
Massachusetts	\$57,184	\$361,500	6.32	3
Rhode Island	\$51,458	\$281,300	5.47	5
New Jersey	\$61,672	\$333,900	5.41	6
New York	\$49,480	\$258,900	5.23	7
Connecticut	\$60,941	\$271,500	4.46	12
New Hampshire	\$56,768	\$240,100	4.23	14
Vermont	\$45,686	\$173,400	3.80	19
Maine	\$42,801	\$155,300	3.63	21
Pennsylvania	\$44,537	\$131,900	2.96	32

Business Costs

- ▶ 20% of employment growth variance explained by Moody's Cost of Doing Business index
- ▶ Components of business cost index (with weights)
 - ▶ Labor costs (.75)
 - ▶ Energy costs (.15)
 - ▶ Tax burden (.10)

Connecticut's Business Costs

- ▶ Unit labor cost – 19th highest
(2% above U.S. average)
- ▶ Energy cost – 10th highest
(34% above U.S. average)
- ▶ State and local taxes – 20th highest
(1% below U.S. average)
- ▶ Cost of doing business – 8th highest
(6% above U.S. average)

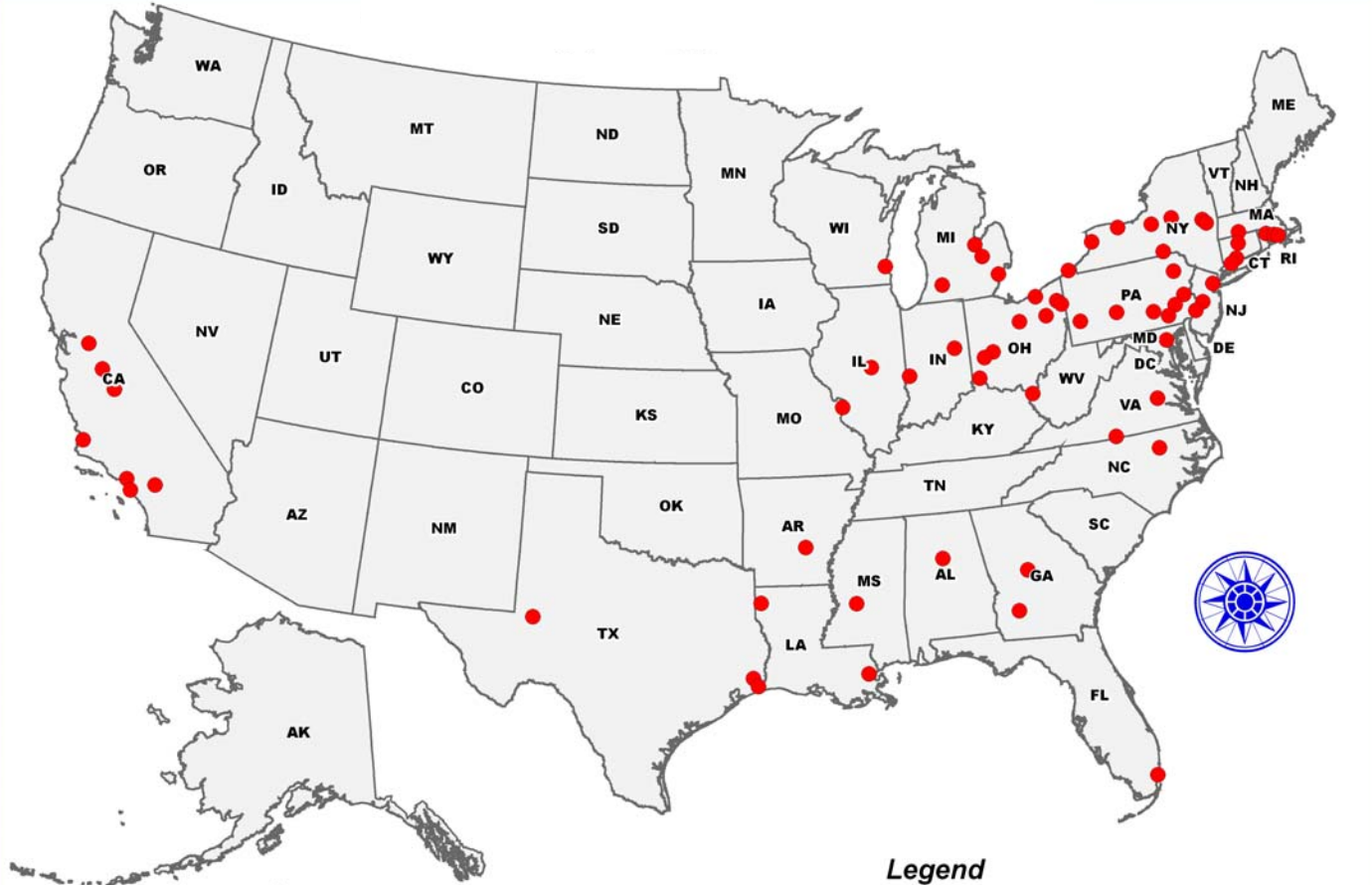
Demographic Impacts

- ▶ Changing skill mix
- ▶ Science, technology, engineering, math (STEM) pipeline
- ▶ Relative educational attainment

Determinant 3: Urban Economic Drag

- ▶ The economic vitality of regions is intertwined with that of its urban center
- ▶ Hartford, Bridgeport and New Haven are three of the weakest urban markets in the country
- ▶ Consequently, slow growth for the regions

“Weak Market” Cities



Legend

- WEAK Residential Economic Wellbeing, WEAK City Economic Condition (n=65)

Summary

- ▶ Key drivers contributing to Connecticut's current economic condition:
 - ▶ External forces
 - ▶ Regional trends
 - ▶ Urban markets

Five Priorities for Sustainable Growth

- ▶ Globally competitive education and training systems
- ▶ Quality affordable housing
- ▶ Integrated, cost-effective transportation infrastructure
- ▶ Dynamic and vibrant cities
- ▶ Growth in business investments

Globally Competitive Education and Training

- ▶ “Best-of-breed”, world-class education and training systems, pre-K through adult
- ▶ All schools, urban and suburban

Quality Affordable Housing

- ▶ Critical to retain young families and professionals
- ▶ Necessary for urban rejuvenation
- ▶ Educational funding is a core driver

Transportation Infrastructure

- ▶ Efficient, effective means of linking people with jobs
- ▶ Regional transportation issues are critical
- ▶ Global transportation links are increasingly important

Dynamic and Vibrant Cities

- ▶ Net contributors to economic growth
- ▶ Attractive to businesses, entrepreneurs and residents
- ▶ Centers of culture, arts, education, health care, government

Growth in Business Investments

- ▶ Strong entrepreneurial climate
- ▶ High levels of technological advancement and innovation
- ▶ Globally integrated businesses
- ▶ Competitive business climate

Looking Ahead

- ▶ Future prosperity is at risk
- ▶ State is not powerless
- ▶ Next steps
 - ▶ Additional research
 - ▶ Strategic policy development

Benchmarking Connecticut 2006



- ▶ View the full report at:
www.cerc.com/benchmarks