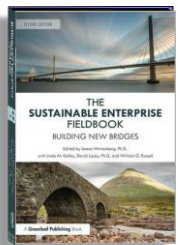


Local > Global > Local

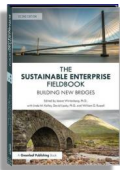
Local and regional impacts; new models

The Berkshire Taconic Bioregion and sustainable globalization

Linda Morris Kelley
May 14, 2020



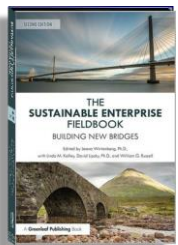
Who's in the Zoom Room today? What have you been thinking about from previous classes?



Global + Local ↔ Local + Global

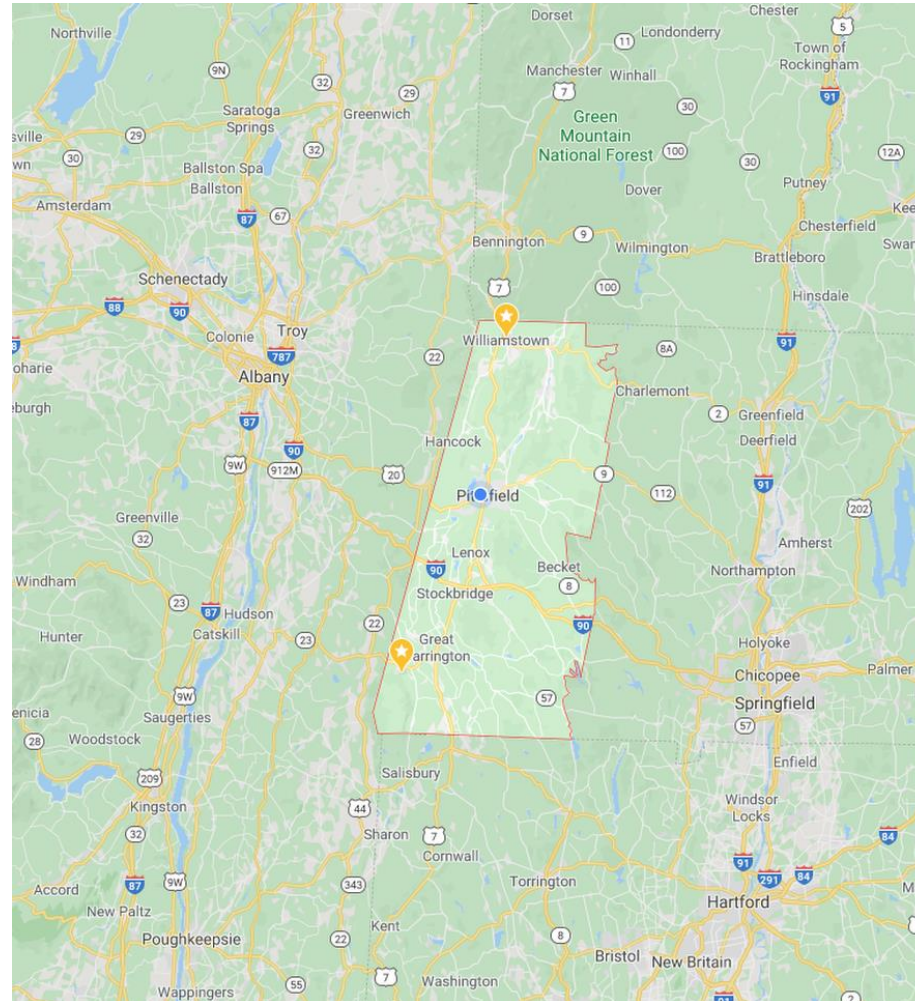


I live here!

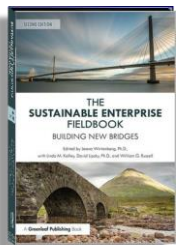


We live here

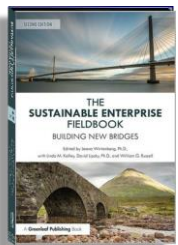
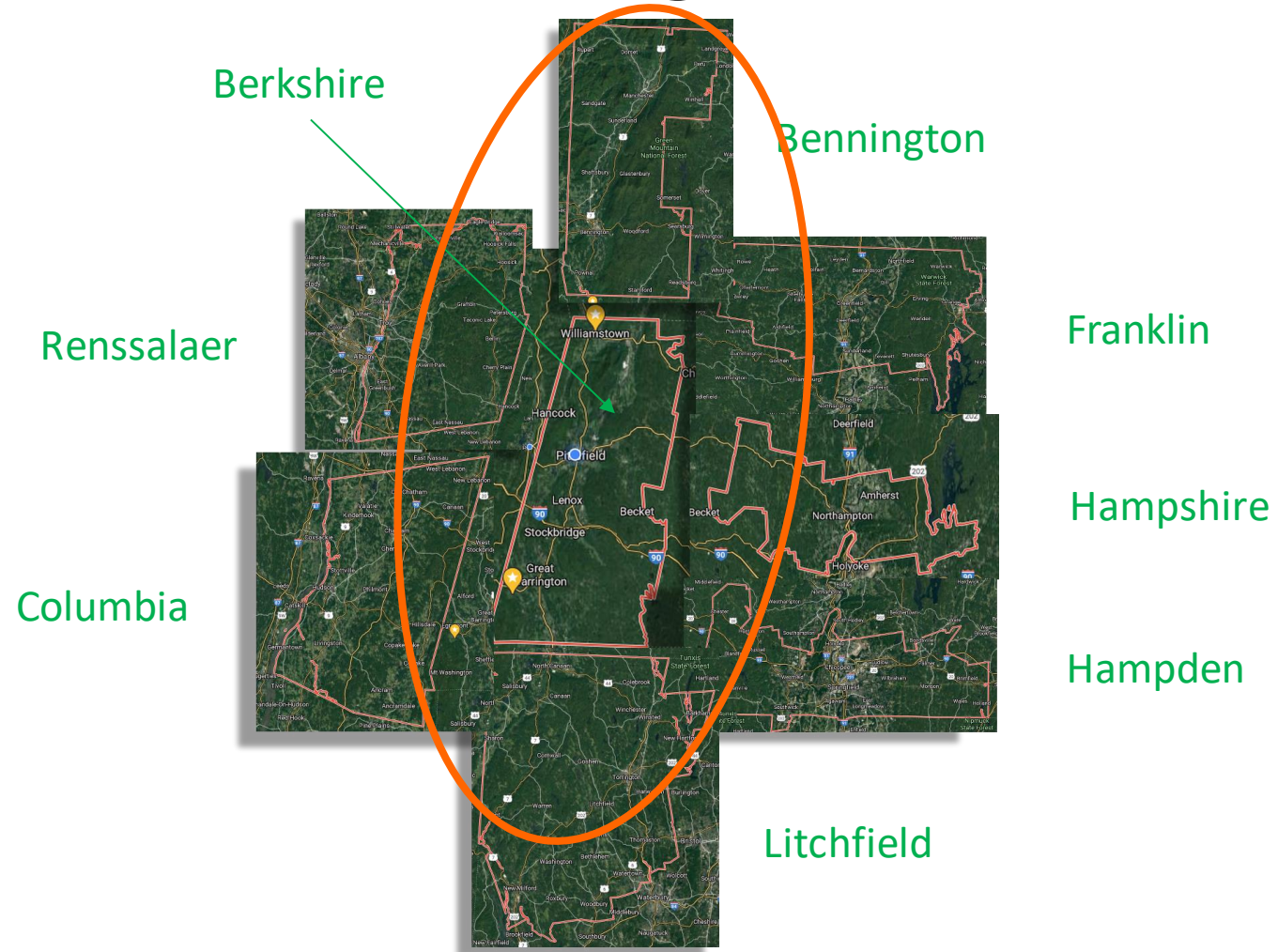
Berkshire County and the surrounding area



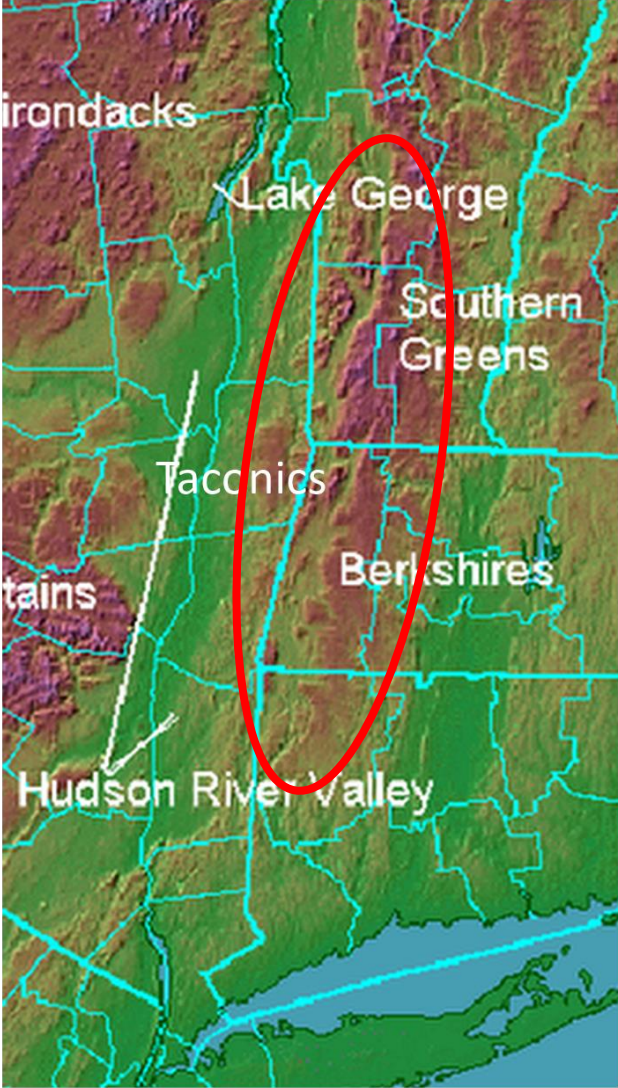
<https://www.google.com/maps/place/Berkshire+County,+MA/@42.3925594,-73.7887823,9z/data=!4m5!3m4!1s0x89e40f35ad5002af:0x169b500c1396290b!8m2!3d42.311782!4d-73.1821623>



Berkshire Taconic Bioregion, 7 Counties



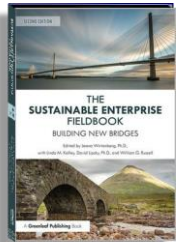
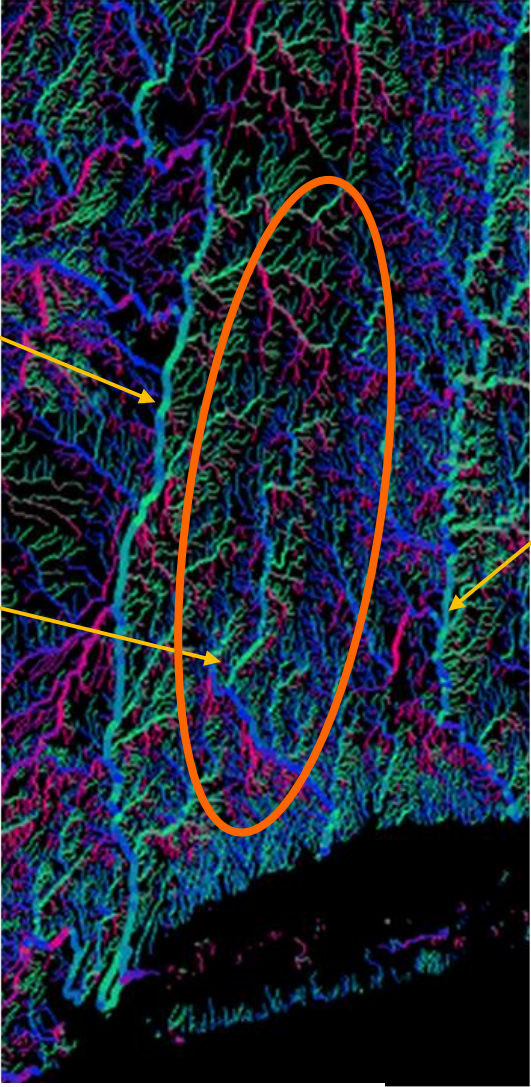
Berkshire Taconic Bioregion topography



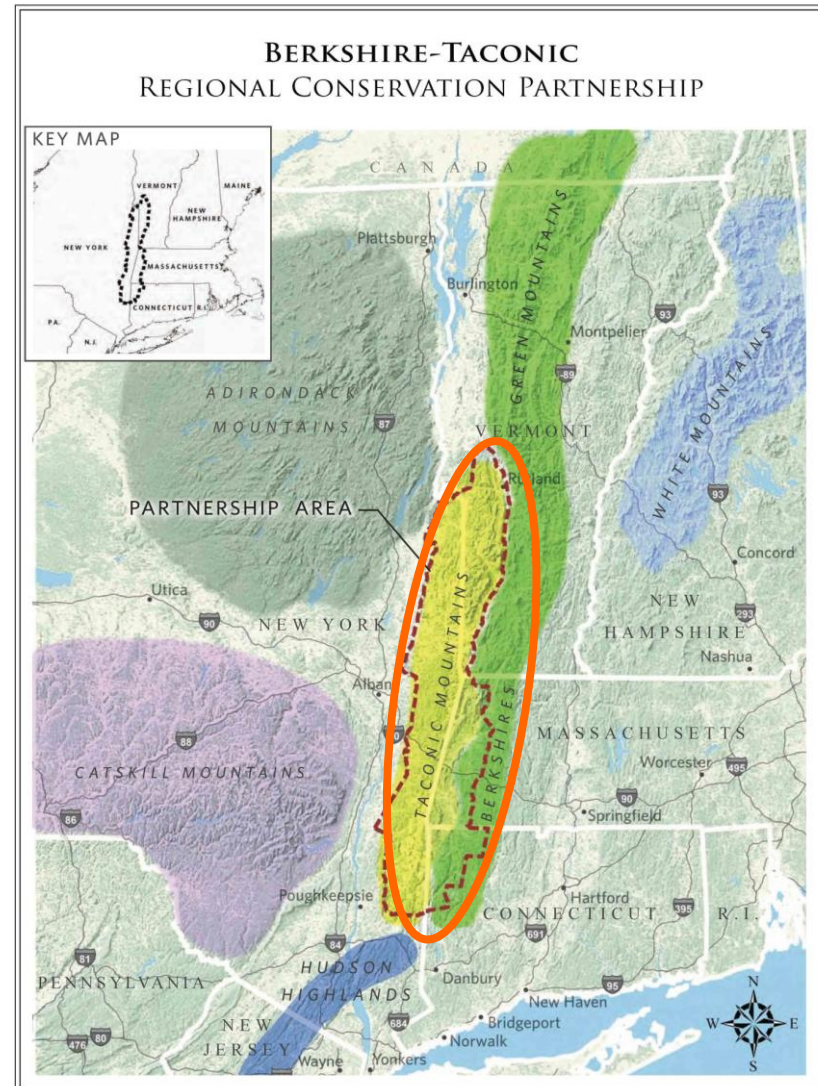
Hudson River

Housatonic River

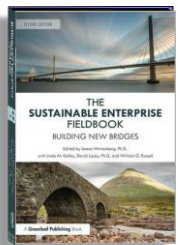
Connecticut River



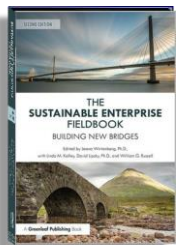
Berkshire Taconic Bioregion



<https://www.bnrc.org/berkshire-taconic-regional-conservation-partnership/>



Looking at Local Sustainability through Six Lenses

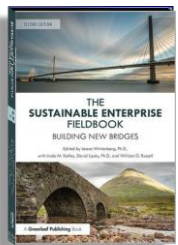


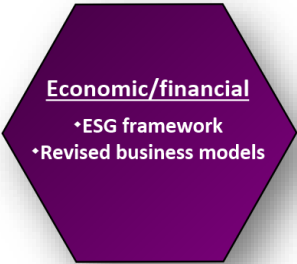
Economic and financial

Economic/financial

- ESG framework
- Revised business models

- What did you find?
- Why is this important?
- What is the reach and impact of this?
- What are the likely consequences of it's success or failure?





Economic and financial

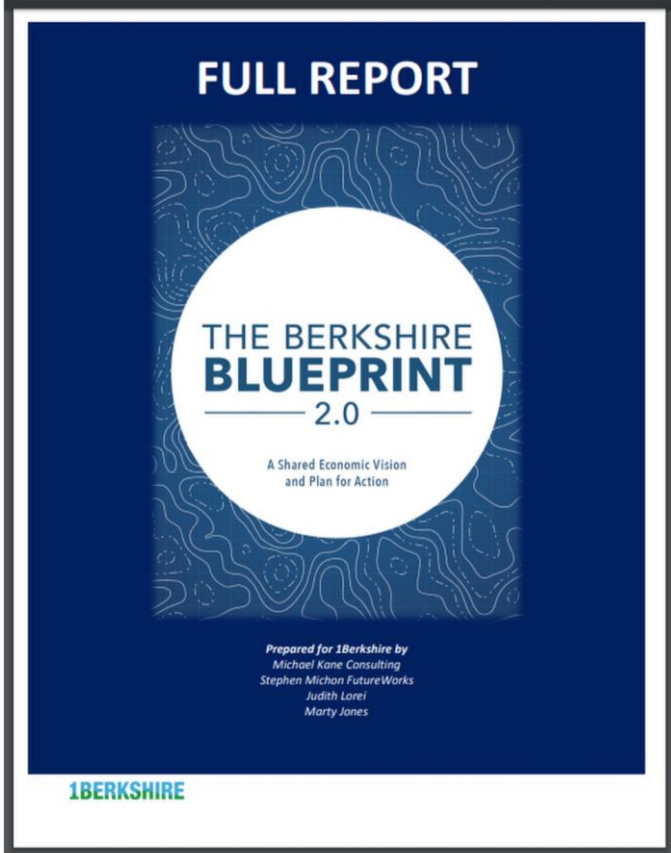
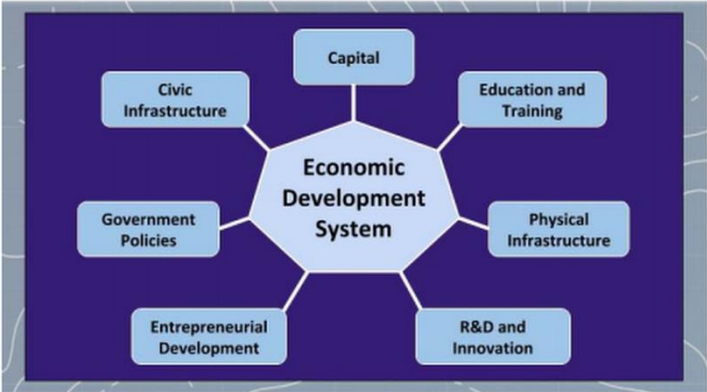
Berkshire Blueprint 2.0

A New Narrative for Opportunity and Growth

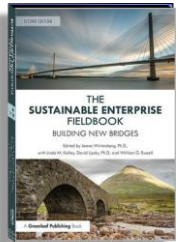
The Berkshire economy is in the midst of a transition, from a job base, labor market and civic infrastructure that was long dominated by General Electric and legacy industries like paper, to newer growing industries, economic innovation, and start-up companies. These changes are helping the Berkshires move from long-held perceptions and realities of struggle and challenge to a new narrative of growth and opportunity.

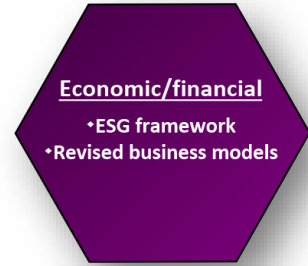
Berkshire Blueprint 2019

Economic Development Ecosystem



<https://1berkshire.com/relocate/blueprint/>





Economic and financial

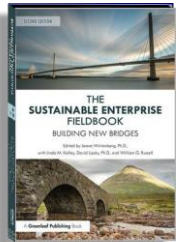


- Greylock Federal Credit Union Community Development
- Lending programs targeting financially underserved members such as credit-challenged borrowers, low income workers, immigrants, students, and young workers.



<https://www.iberkshires.com/story/60957/Greylock-Federal-Prepares-to-Open-Community-Empowerment-Center.html>

http://www.greylock.org/post/greylock_announces_expansion_of_community_development_program_appoints_shogryraimer_and_escobar_to_new_roles_in_program.html

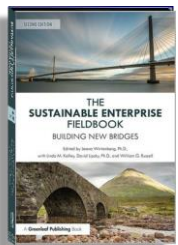


Berkshares

- Local currency in Berkshire County supporting and supported by local businesses
- 5% discount
- Local multiplier effect

<https://www.independentwestand.org/what-happens-when-you-shop-local/>

- \$100 spent with a local business = \$68 recirculates in the community
- \$100 spent with a national chain = \$43 only recirculates in the community



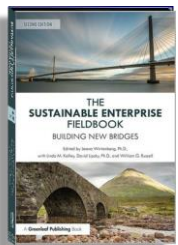
<https://www.berkshares.org/>

Technology

Technology

- Services sector
- Disruptive innovations
- Leveling the playing field
- Reuse and recycling

- **What did you find?**
- **Why is this important?**
- **What is the reach and impact of this?**
- **What are the likely consequences of it's success or failure?**



Medical – Advanced Manufacturing in the Berkshires



- Boyd Technologies: pharmaceuticals, advanced flexible materials

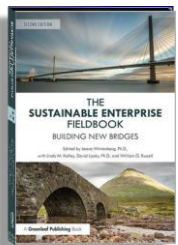


<https://entrepreneurship.babson.edu/to-fill-a-drastic-need/>

- Berkshire Sterile Manufacturing: sterile drug products for clinical use



<https://www.berkshireeagle.com/stories/berkshire-sterile-manufacturing-working-on-coronavirus-meds-plans-20m-expansion,601574>



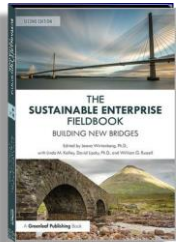


Renewable energy– Jiminy Peak Wind

- Zephyr, Jiminy's 1.5MW wind turbine, provides approximately 33% of the electrical demands of Jiminy Peak annually. During the winter months, when the wind resource is the strongest, it may provide as much as half of our electrical demand.
- The turbine generates approximately 4,600,000 kWh each year. Due to the 2010 Massachusetts Green Communities Act allowing “net metering”, every kWh generated by Zephyr can be consumed by the resort. Today, 66% of Jiminy Peak’s electrical demands are provided by our own wind turbine.
- This amount of electricity is also equivalent to:
 - Driving 75,000,000 fewer miles in a conventional automobile each year the wind turbine is in operation
 - Planting 83,000 new trees.



<https://www.xcskiresorts.com/blog/2016/7/19/jiminy-peak-is-one-of-the-greenest-resorts>



<https://www.jiminypeak.com/sustainability>

Renewable energy– Solar

- What solar and where?
- Opportunities and responsibilities
 - Individual?
 - Societal?

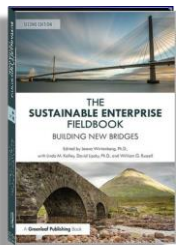


Barrington House

<https://theberkshireedge.com/its-not-that-simple-where-should-solar-power-installations-be-sited/>



Ward's Nursery



Technology

- Services sector
- Disruptive innovations
- Leveling the playing field
- Reuse and recycling

Repair Cafes in the Berkshires

- Repair, repurpose, recycle, swap
- Neighbors helping neighbors, putting expertise to use



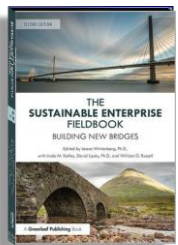
<https://berkshirerepairs.weebly.com/>

Poverty and inequity

Poverty and inequity

- Base of the pyramid
- New market creation
- Connectivity
- CSR

- **What did you find?**
- **Why is this important?**
- **What is the reach and impact of this?**
- **What are the likely consequences of it's success or failure?**



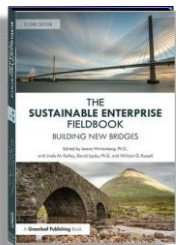
Workers: inequity and privilege

- Who is “essential” and why?
- What does that mean?
 - Individually?
 - To the community?
 - To society?
- Structural disenfranchisement
 - Racism
 - Ageism
 - Sexism
 - Ableism



Lawmakers keep calling essential workers ‘heroes’ – but Congress has yet to pass a hazard pay raise

<https://www.cnn.com/2020/05/13/coronavirus-updates-congress-fails-to-pass-hazard-pay-for-essential-workers.html>



What are essential goods and services?

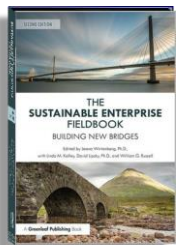


Personal needs

- Food and food access
- Clean, safe water; water treatment. Sewage treatment
- Clean, safe air
- Reliable, affordable energy
- Learning
- Safety

Social needs

- Companionship
- Reproduction
- Health and wellness care
- Education
- Security



Broadband connection and access

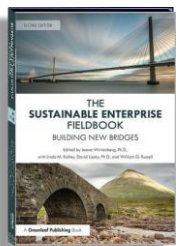
Poverty and inequity

- Base of the pyramid
- New market creation
- Connectivity
- CSR

- Sen. Kirsten Gillibrand talked about the need for broadband access in rural parts of the country.
- "Millions of families across the country simply don't have the internet access they need to connect students to their classrooms. One in seven households with school-aged children don't have internet at home. One in five teens aren't always able to finish their homework because they don't have a computer or reliable access to the internet," said Gillibrand, D-New York.



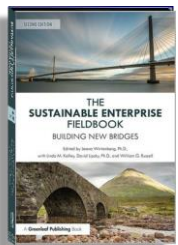
<https://www.wcax.com/content/news/Gillibrand-bill-would-devote-5B-for-student-internet-access-570416201.html>



Berkshire Bridges Working Cities

All people in Berkshire County experience a just, thriving and safe community.

- Working Cities Wednesday
- Community Navigators
- Bridges Out of Poverty
- Getting Ahead in a Just Getting By World
- Collaborator and convener innovating ideas and actions that lift up people in marginalized communities



<http://workingcitiespittsfield.org/>

Berkshire Bridges Coalition

18 Degrees

Berkshire Community Action Council

Berkshire Community College

Berkshire County Chapter of the NAACP

Berkshire County Regional Housing Authority

Berkshire Health Systems

Berkshire Housing Development Corporation

Berkshire Immigrant Center

Berkshire Regional Planning Commission

Berkshire United Way

Brien Center

Central Berkshire Habitat for Humanity

**City of Pittsfield, Department of Community
Development**

City of Pittsfield, Office of the Mayor

Christian Center

Downtown Pittsfield, Inc.

First United Methodist Church of Pittsfield

Fenn Street Community Development
Corporation

Gladys Allen Brigham Center

Goodwill of the Berkshires

Greylock Federal Credit Union

Heart 2 Heart Ministry

Jacobs Pillow Dance

Manos Unidas

Multicultural Bridge

North Adams Public Schools

Pittsfield Neighborhood Action Team

Pittsfield Public Schools

Resident Partners

R.O.P.E.

Salvation Army of Pittsfield

South Congregational Church of Pittsfield

Tyler Street Lab

Westside Neighborhood Initiative

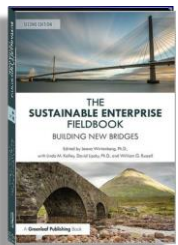
Bold = Steering Committee

Constraints on growth

Constraints on growth

- Ecological Footprint
- Ecosystem services
- Resource depletion
- Climate change

- **What did you find?**
- **Why is this important?**
- **What is the reach and impact of this?**
- **What are the likely consequences of it's success or failure?**



Restorative agriculture: Churchtown Dairy

Hudson, NY

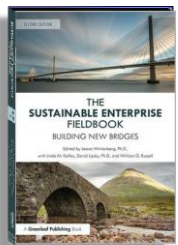
Constraints on growth

- Ecological Footprint
- Ecosystem services
- Resource depletion
- Climate change

- 3 farms into 1
- Biodynamic dairy herd
- Whole system farming
- Regenerating community

<https://www.churchtowndairy.org/>

Who else is doing this?



- Ecological Footprint
- Ecosystem services
- Resource depletion
- Climate change

Roots Rising

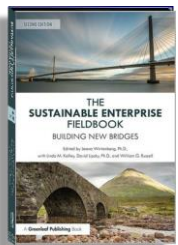
Our Mission

Roots Rising is an award-winning nonprofit organization whose mission is to empower youth and build community through food and farming. Our vision is to lift up teens as community changemakers and to strengthen the local food system through the transformational power of meaningful work.



<https://www.rootsrising.org/>

Roots Rising has two main initiatives: our [Youth Crews](#) and our [Pittsfield Farmers Market](#).



Food access and security – Berkshire Grown

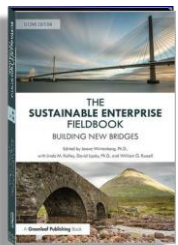
Constraints on growth

- Ecological Footprint
- Ecosystem services
- Resource depletion
- Climate change

- How to support your local farms
 - From a distance
 - Shop online
 - Get it delivered
 - With grants and funding
- Farm mentoring program



<https://berkshiregrown.org/find-food-and-farms/>

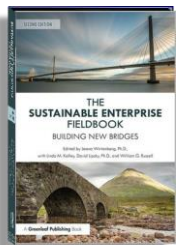


Regional water resources, and contamination

- Lakes, rivers, ponds: boating, fishing and swimming
- Contaminants
 - PCBs (re: plastics manufacturing)
 - PFOA and PFOS (re: Teflon)
 - Pesticides and animal waste
- Invasives
 - Milfoil
 - Zebra muscles



Onota Lake



Constraints on growth

- Ecological Footprint
- Ecosystem services
- Resource depletion
- Climate change

Cleaning up the Housatonic River



<https://www.epa.gov/ge-housatonic/cleaning-housatonic#WhyCleanUp>

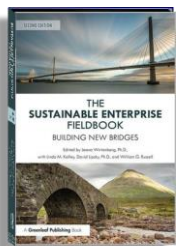
Otis State Forest and the Kinder Morgan / Tennessee Gas natural gas pipeline

Constraints on growth

- Ecological Footprint
- Ecosystem services
- Resource depletion
- Climate change



<https://theberkshireedge.com/analysis-otis-state-forest-pipeline-battle-set-troubling-precedents-for-state-protected-land/>

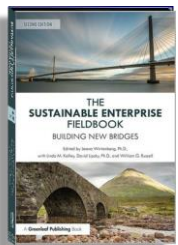


Migration of talent

Movement of talent

- Migration
- Urbanization
- Virtualization

- **What did you find?**
- **Why is this important?**
- **What is the reach and impact of this?**
- **What are the likely consequences of it's success or failure?**



Movement of talent

- Migration
- Urbanization
- Virtualization

Population loss and gain now?

Population change in the Berkshires, 2010-2019

New population estimates released by the U.S. Census Bureau show a 3.8 percent decrease in Berkshire County's population from April 2010 to July 2019, despite a statewide population increase. Data for Berkshire cities and towns with populations greater than 5,000 also showed declines over the same period, except for Williamstown, which recorded a 2.9 percent population increase.



<https://www.berkshireeagle.com/stories/body-of-proof-census-estimate-shows-most-of-berkshires-still-losing-population,593936>

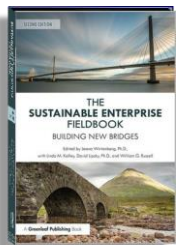
CITIES AND TOWNS WITH POPULATIONS GREATER THAN 5,000



SOURCE: U.S. CENSUS ANNUAL POPULATION ESTIMATE, AMERICAN COMMUNITY SURVEY, JULY 1, 2019
REPORTING BY CLARENCE FANTO — EAGLE CORRESPONDENT | GRAPHIC BY EVAN BERKOWITZ — THE BERKSHIRE EAGLE

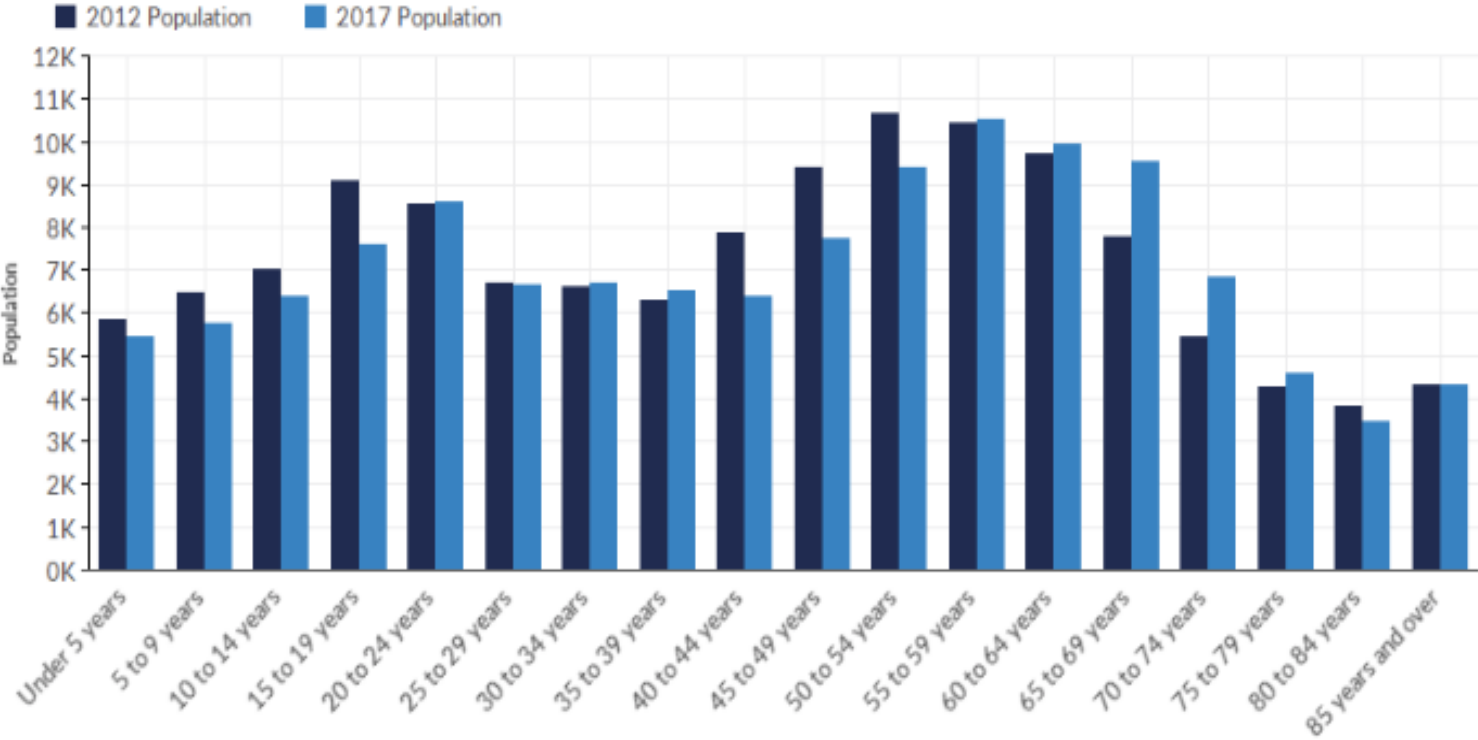
Pittsfield Population: 43, 289, 0.786% decline

<https://datausa.io/profile/geo/pittsfield-ma/>

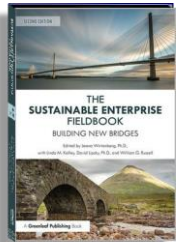


Berkshire County population by Age

Population by Age Cohort



Source of data: Emsi 2017.4 class of worker








- Migration
- Urbanization
- Virtualization

Berkshire Blueprint 2.0

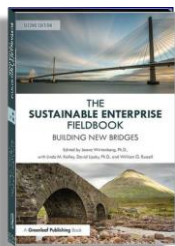
1. Strong and Growing Clusters

Companies and employers are continuing to add jobs, make strategic investments, and develop new programs and initiatives. The following chart highlights job growth and prospects for the five economic clusters that are the engine of the Berkshire economy. (See definitions and sources in the appendix.)

Economic Performance of Berkshire Industry Clusters					
	Advanced Manufacturing and Engineering Services	Creative Economy	Food and Agriculture	Healthcare	Hospitality and Tourism
Gross Regional Product	\$917,000,000	\$398,000,000	\$416,000,000	\$702,000,000	\$394,000,000
Total Jobs (including self-employed)	6,450	5,450	8,947	11,417	6,329
Job Growth 2010-2017 (Berkshire County)	3.1%	9.5%	4.0%	3.0%	6.3%
Job Growth 2010-2017 (Massachusetts)	3.4%	18.1%	16.1%	14.6%	11.7%
Job Growth 2010-2017 (United States)	8.8%	14.2%	16.2%	14.2%	8.7%
Industry Concentration	0.98	1.62	0.92	1.50	1.29
Average Wage & Salary	\$72,477	\$30,249	\$22,184	\$52,877	\$27,735
Jobs Multiplier	4.8	1.6	1.7	1.7	1.4

Conclusion

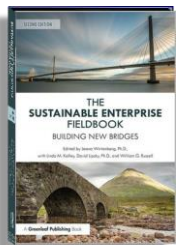
- None of the progress highlighted above happened by accident; it has taken years of tireless efforts from countless individuals and organizations.
- [S]uccess will require an all-hands-on-deck effort. This collaborative effort will require local elected officials, executives, organizers, workers, volunteers, and private citizens to step up to the plate, and leverage their own spheres of influence for the collective good.



Geopolitical



- **What did you find?**
- **Why is this important?**
- **What is the reach and impact of this?**
- **What are the likely consequences of it's success or failure?**



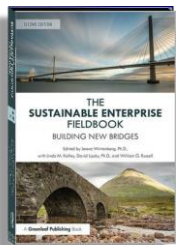


Berkshire Regional Planning Commission



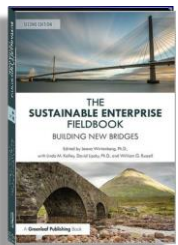
Berkshire Regional Planning Commission (BRPC) addresses the challenges which face individual communities as well as those that affect the entire Berkshire region. Transportation, communications, economy, environment and land present cross-cutting issues and benefit from cross-cutting solutions, meaning they can improve conditions at the community and regional scale, and influence activities and impacts in related topic areas as well.

<http://berkshireplanning.org/about>



Resilience planning: piecemeal or holistic?

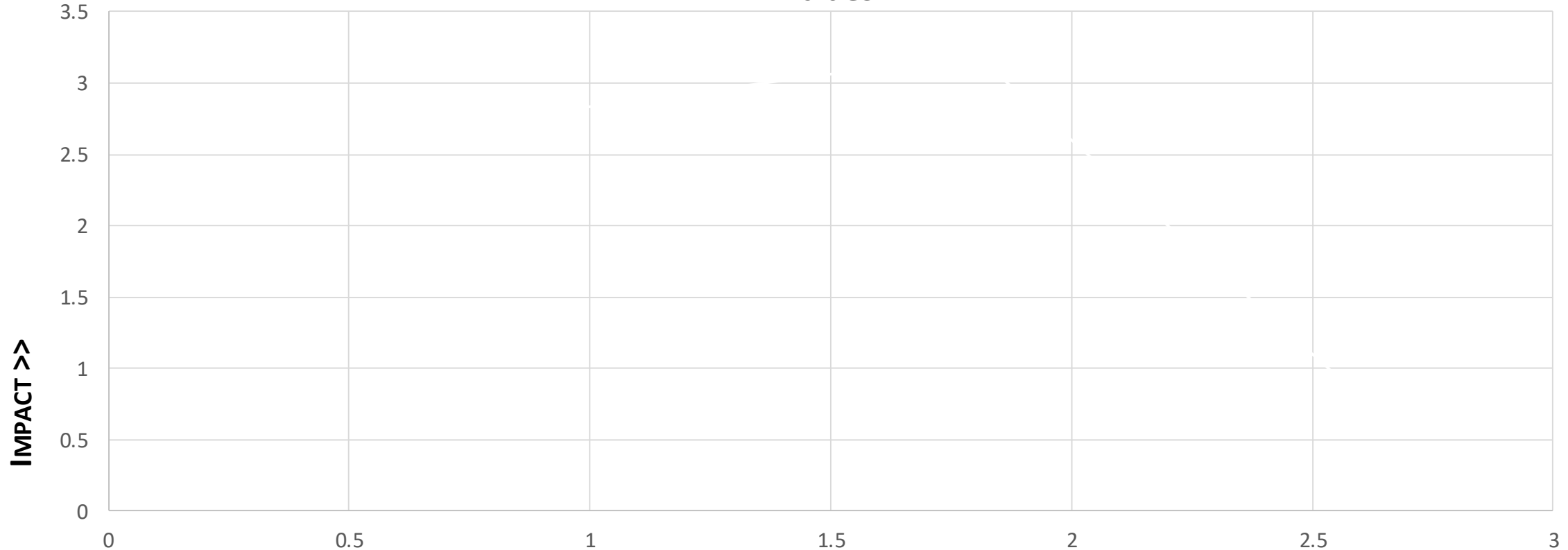
- Housing
 - Zero Stretch Code and the Massachusetts Climate Action Network
 - Change in building codes after Hurricane Irene
- Energy
 - Pittsfield Municipal Solar
- Economy
- Education
- ?????



Regional future casting: 5 years out

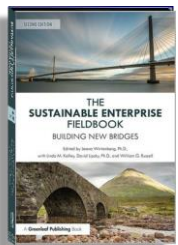


Y-Values

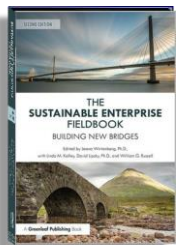
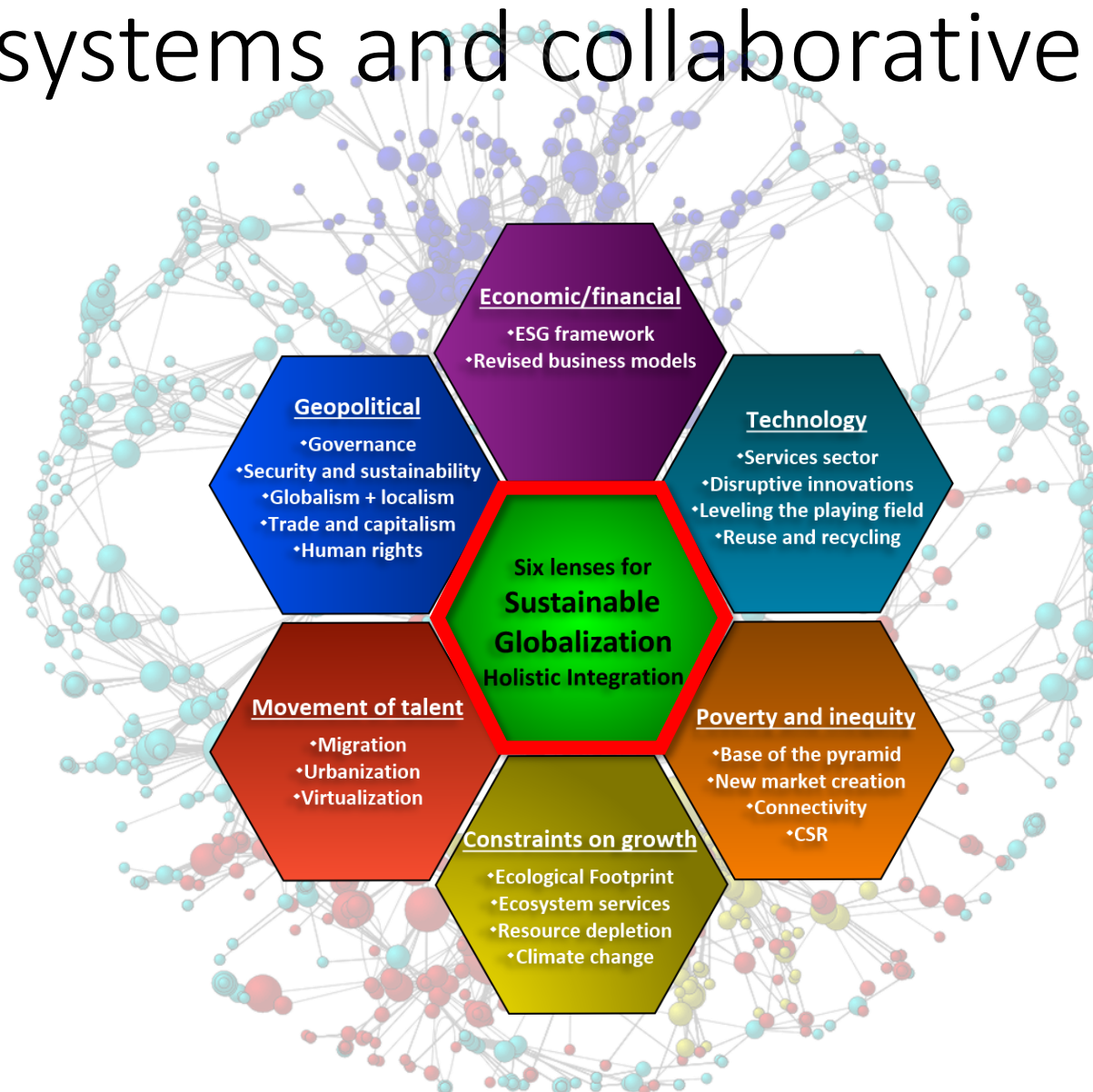


LIKELIHOOD >>

- High Employment level, ● Full healthcare coverage, ● Full education access, ● Food access,
- Clean water quality, ● Extreme weather events, ● Renewed tourism, ● Active arts & culture, ● Business innovation? ...



Complex systems and collaborative ingenuity



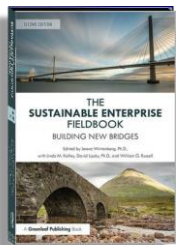
Sustainability and Thriving

- Sustain – is
- Thrive – is

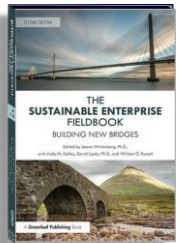


Sustainability is the threshold between survival and thriving.

- **What will thriving look like in the Berkshire Taconic Bioregion?**
- **What will it take to make this happen?**
- **What will you do?**



Reflections on today?



Thank you for being here!

Preparation for **Session 6**, May 21, 2020. Holistic Integration.

Read p. 50 through 54

