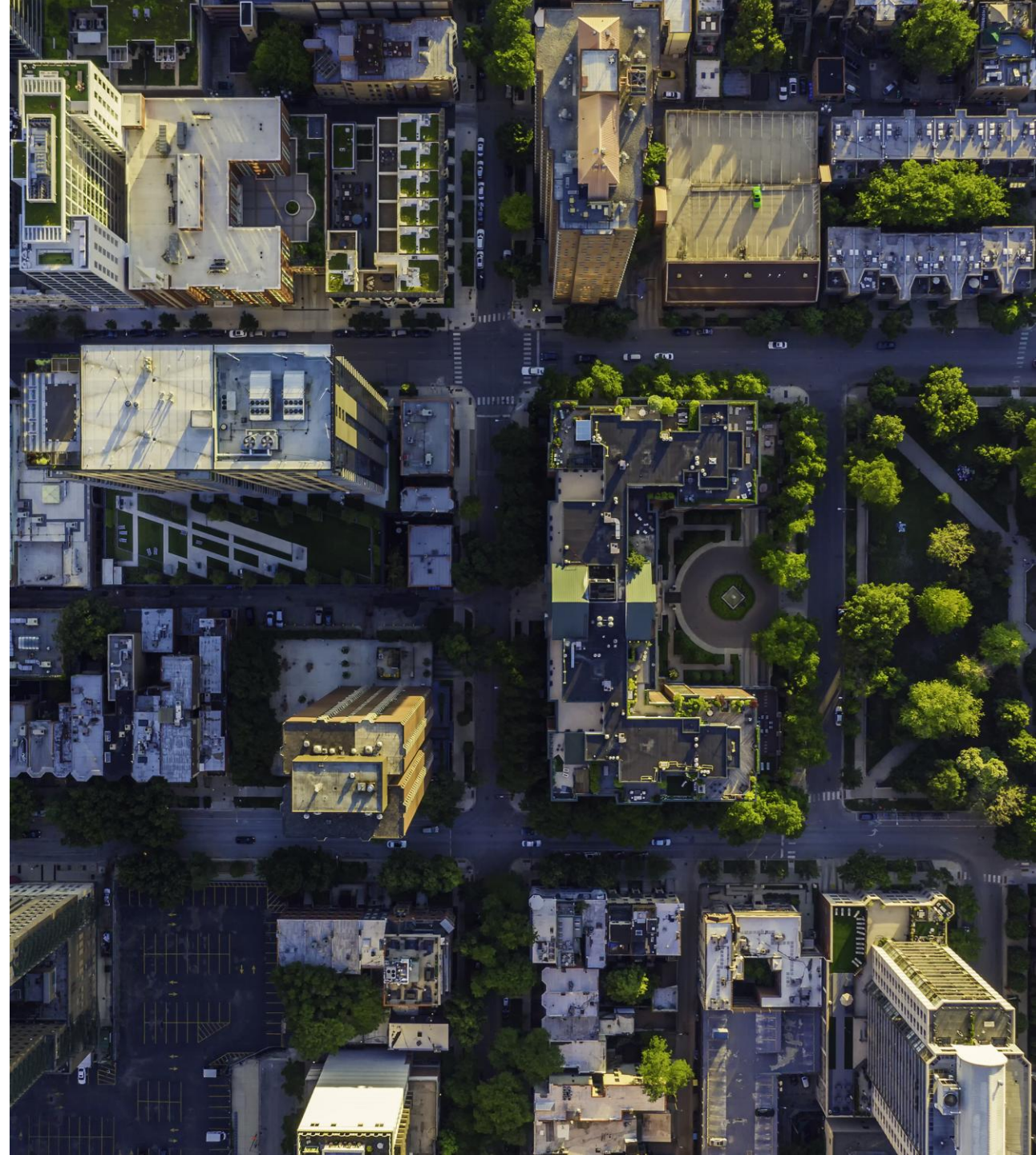


CLUSTER IDENTIFICATION

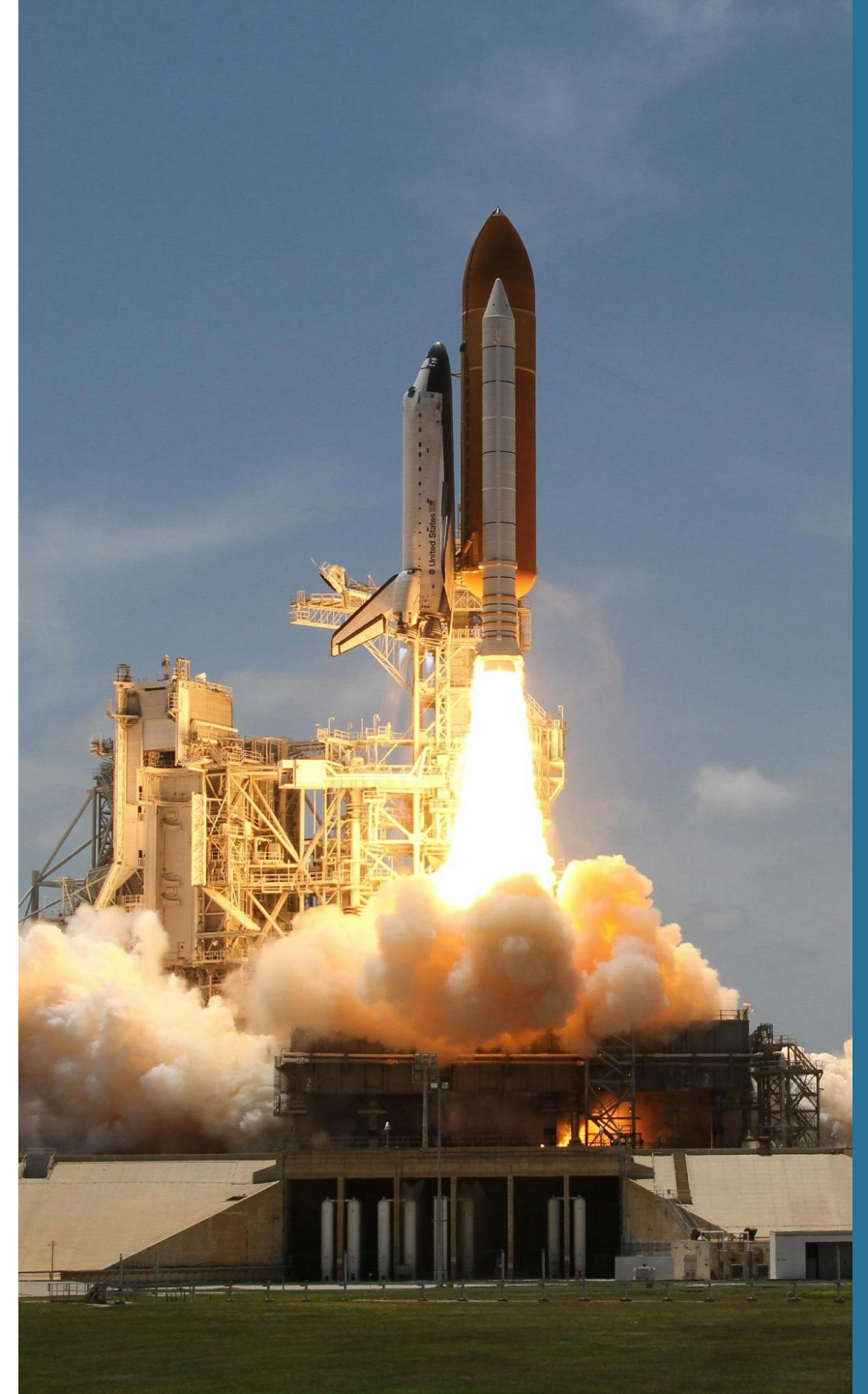
**Recognizing &
prioritizing
regional industry**

CENTER FOR CLUSTER
DEVELOPMENT



COURSE GOALS

1. Know how to identify clusters
2. Understand how to prioritize clusters for public support
3. Be prepared to lead your region in cluster identification and prioritization process





COURSE SESSIONS

1. About Clusters
2. Location Quotient
- 3. Qualitative Assessment**
4. Prioritizing Assistance
5. Beyond Identification
6. Report out & Discussion



QUALITATIVE ASSESSMENT

Adding necessary depth to a region's analysis of its industry clusters



DAY AGENDA

1. Hard-to-measure sectors
2. Community, stakeholder, & industry engagement
3. Regional history
4. Funder expectations

INTRODUCTIONS

- Name
- Region
- Something you are reading now (or read recently)

BEYOND LQ

- Quantitative benchmarks are important... but not everything
- Information to pursue:
 - Presence of industry connections or clusters outside of NAICS analysis
 - Stakeholder / business / community perspectives
 - Relevant local economic history
 - Expectations of likely funding sources



Add depth and insight to the picture!



THE UNMEASURABLES

- Occasionally, a cluster is not apparent in data
 - Traditional sources mask presence (e.g., rural region with limited data)
 - Relies on cross-cutting connections (e.g., water tech, outdoor recreation)
 - Built around emerging tech or practice (e.g., quantum)
- Qualitative research can help ID these clusters

QUICK CHECK: EMERGING TECH SECTORS

1. Think of an emerging technology that is discussed in the news or economic development as comprising an industry
2. Visit the primary NAICS website and try to find it:
<https://www.naics.com/search/>
3. Is there a clear code?
 - a. Yes – record it
 - b. No – what are the closest codes you can find?

HOW TO DEFINE AN ARTIFICIAL INTELLIGENCE CLUSTER?

- Only one NAICS code references AI in its definition
 - 541715 - Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)
- An AI cluster also could include companies from:
 - Semiconductor and Related Device Manufacturing (e.g., NVIDIA @ 334413)
 - Computer system services and sales sectors (e.g., Anthropic PBC @ 541511)
 - Software services and sales sectors (e.g., Salesforce @ 513210)

IDENTIFYING ALTERNATIVE CLUSTERS

- Iterate between quantitative and qualitative methods
 - Test for combinations of plausible clusters (e.g., AI)
 - Talk about results with that sector's stakeholders
 - Refine analysis, if needed
- Lists / surveys of local businesses
 - PA Wilds Outdoor Recreation Industry helped make its case as a cluster by talking with store owners to determine cluster relevancy
- Interviews / group meetings with regional stakeholders and industry

COMMUNITY & STAKEHOLDER ENGAGEMENT

- Solicit broad stakeholder input to enrich regional plan
- Benefits of engagement:
 - You have actual questions that need answered
 - You don't know what you don't know
 - Begin to ID nature and scale of needs (will factor into prioritization)
 - Builds understanding of (and hopefully support for) cluster approach

CONSIDER BEST TIME TO SEEK COMMUNITY INPUT

- People will see through false attempts to include them -- don't ask at the end or the wrong stage
- Early feedback
 - Best when you are genuinely open to direction about where to go
 - Engagement could guide cluster research, selection, plan
- Mid-stage feedback
 - Best when you have a strong sense of direction
 - Engagement could guide selection or plan

REFLECTION ON COMMUNITY ENGAGEMENT

1. What initiatives have engaged your community effectively? What made them successful?
2. Have you seen poor attempts at community engagement in your region? What caused them to fail?
3. What other regions have effectively engaged their communities? Why do you think they succeeded?

KEY QUESTIONS FOR COMMUNITY

- What do you think is working well about our region's economy? What needs to be improved?
- What past economic initiatives in our region were successful? Failures?
- Are there any industries, companies, or technologies in our region that you think are especially unique or important?
- If we support new economic activity, how should we measure success?
- What is the best way we can communicate new economic opportunities or successes to you?

ENGAGING ECONOMIC DEVELOPMENT STAKEHOLDERS

- Regional service providers have insights to economic connections, needs that can strengthen your cluster research
 - Few entities have broad *and* deep exposure to industries and activities
 - Need to talk to a variety of providers to gain perspective
- Small groups, interviews can be great for collecting wide input quickly
- This also is an opportunity to build support, partnerships and to start conceiving elements of a cluster plan

ECONOMIC DEVELOPMENT STAKEHOLDERS

For all questions, think private, nonprofit, and public sources.

1. Who are the sources of new IP in your region?
2. Who provides business support?
3. Who trains/educates your region's workforce?
4. Who lends/invests money in local businesses?
5. Who are the major employers and buyers in the region?
6. Who funds economic development in your region?

ECONOMIC DEVELOPMENT STAKEHOLDERS

	Private	Nonprofit	Public
IP sources			
Business support			
Workforce training			
Lenders & investors			
Employers & buyers			
Economic dev. funders			

KEY QUESTIONS FOR STAKEHOLDERS

- How do you measure success for our region? For your organization?
- What do you think is working well about our region's economy? What needs to be improved?
- What industries are most represented among your clients?
- Are there industries in our region that you do not support? Who does?
- Are there challenges you help address that are specific to one industry?
- Any challenges that are surprisingly common across just 2-3 industries?

ENGAGING INDUSTRY

- Economic development attempts to channel private activity toward public benefits and/or supplement private market gaps
- You need to know your private sector to target your plans and initiatives
- Industry particularly needs to be included in cluster planning and initiatives
- Engage industry during first steps of your process
 - If they won't work with you, this is a critical flag against prioritizing the cluster for a development strategy

INDUSTRY STAKEHOLDERS

For all questions, think private, nonprofit, and public sources within the industry or sector of your choice.

1. Review your answers to the previous exercise. Add any responses specific to your chosen industry/sector.
2. What entities within your region are the primary customers for this sector?
3. What entities within your region are critical service providers to this sector?
4. Who from your region works in this sector?
5. Where do workers in this sector acquire their skills?

INDUSTRY STAKEHOLDERS

	Private	Nonprofit	Public
IP sources			
Business support			
Workforce training			
Lenders & investors			
Employers & Buyers			
Economic dev. funders			

KEY QUESTIONS FOR INDUSTRY

- Why does your company continue to be located in our region?
- What other regions in the U.S. or world do you look to as industry leaders?
- Where are most of your suppliers located? Buyers?
- When and how do your local peers/competitors meet to talk?
- What do you think is working well about our region's economy? What needs to be improved?
- How can our region better support your growth plans?

FURTHER RESOURCES ABOUT ENGAGEMENT IN ECONOMIC DEV.

- Gonzalez Martinez, J.L. & Johnson, S. (2022). Communication Resource Guide for Inclusive Economic Development. New Growth Innovation Network.
- Center for Regional Economic Competitiveness. (2024). CREC Policy Academy: A Learning Cohort Designed to Improve Regional Competitiveness by Enhancing State and Local Alignment Strategies. CREC.
- Venn Collaborative & University of Wisconsin-Oshkosh. (2024). “Conversation Guides.” C-CUBE.

REGIONAL HISTORY

- If you have an economic legacy that is meaningful to your community and companies – and is known outside of your region – that can translate into earlier traction
- If that legacy industry is still present, there may be a cluster strategy around tech adoption or related sectors

Examples:

- Akron, OH:
Rubber => Sustainable Polymers
- Milwaukee, WI:
Water => Water tech
- Portland, OR:
Logging => Prefab housing
- Wichita, KS:
Aerospace mfg =>
Advanced aerospace mfg

WICHITA & A HISTORY OF AEROSPACE MANUFACTURING

Wichita's aerospace cluster began nearly 100 years ago. An early cluster initiative was Wichita State University's procurement in 1948 of what is now the Walter H. Beech Wind Tunnel. At the time, the equipment was too expensive for Beechcraft or Cessna, but neither wanted to share directly with a competitor. The university was a neutral convener and solved the problem. Today, Wichita State University continues to lead cluster development work for the region, and the institution's close ties to industry help it remain relevant. A recent example is the creation of a Maintenance, Repair, and Overhaul program that is one of only three in the world.



* Sources: Interview with WSU Associate VP Debbie Franklin; [Beechcraft's official history](#); [Cessna's official history](#) (archived); ["75th Anniversary Celebration of Walter H. Beech Wind Tunnel"](#) by WSU; [Maintenance, Repair and Overhaul](#) by WSU. Images courtesy of WSU Libraries, Special Collections and University Archives.

“Effective local storytelling shapes public perception more than facts or data alone, because storytelling is an evolutionary survival mechanism. Our brains are wired to learn through narrative, treating stories as lived experiences to gain insight.”

- Chris Wink

Wink, C. (2025, May 11). “The case for storytelling: Want your region’s tech scene to grow? Start with a story, new data says.” *Technical.ly*. Retrieved: <https://technical.ly/civic-news/case-for-storytelling-tech-ecosystem-growth/>.

FUNDER EXPECTATIONS

- Resist the urge to select based on funders
- Possible pitfalls when funders drive cluster selection
 - Research shows government's attempts to create clusters fail
 - Most grants don't pay well enough to be worthwhile without traction
 - Failure can create a vicious cycle for regional economic development funding
- ONLY consider funder preference if you are confident the region has a cluster and the support, resources to merit that prioritization

QUALITATIVE ASSESSMENT: TAKEAWAYS

- Supplementing LQ assessments with qualitative information is worthwhile
- Clusters may be hard to ID by simple analysis
- Engage with community to receive input and build momentum
- Engage economic development and industry for insights and to begin shaping possible future activities
- Regional history can be a meaningful factor in cluster selection
- Be cautious about letting cluster funders affect this stage of the process



QUESTIONS & DISCUSSION

PREP FOR NEXT SESSION

- ID 1-3 clusters that your region could prioritize
 - Ideally, put your identification skills to work to pick real ones
- List up to 3 needs for each cluster
(e.g., tech adoption, additional workers, supply chain costs)
 - Try to make these as detailed as possible, including scope of challenge



FEEDBACK SURVEY

<https://forms.gle/pmpUgfpJX11RAv6A8>

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Jason Rittenberg, Principal at Excel Regional Solutions, is the primary author of this curriculum.

Excel strengthens America's technological and economic competitiveness by providing expert strategy development, communications, and information services that advance regional, state, and federal policy and programs. Learn more at excelregions.com.



EXCEL REGIONAL SOLUTIONS

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