Local Entrepreneurship Ecosystem and Economic Development

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Outline

1. Kauffman Index of Entrepreneurial Activities

2. Concept of entrepreneurship ecosystem

3. Recommendations for Encouraging Entrepreneurial Growth and Economic Development



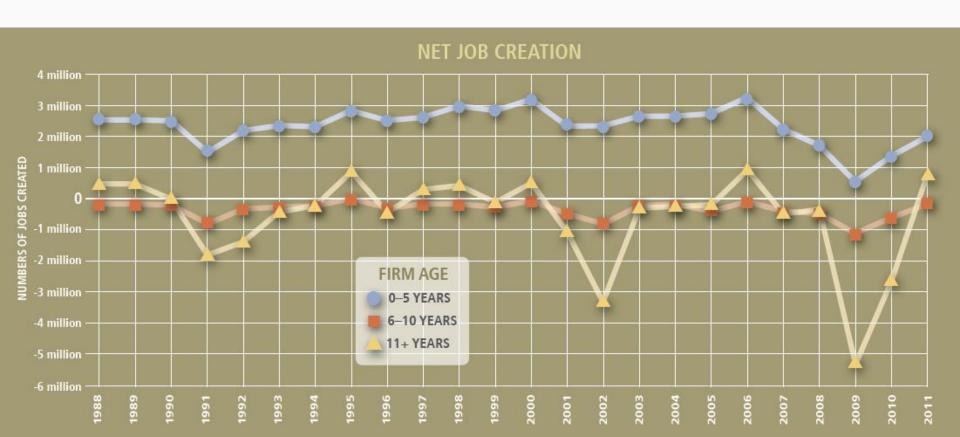




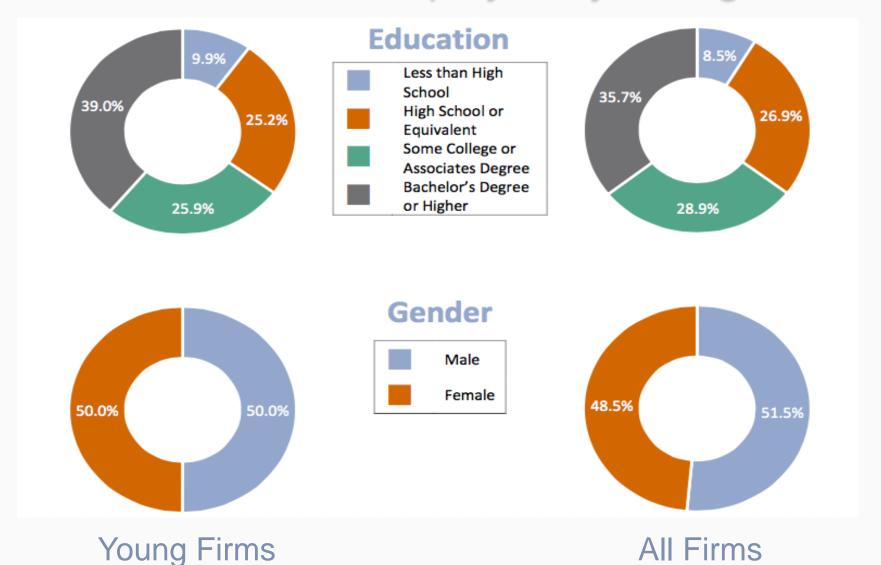


Importance of Entrepreneurship

Young companies generate nearly all net new jobs



Who is Employed by Young Firms



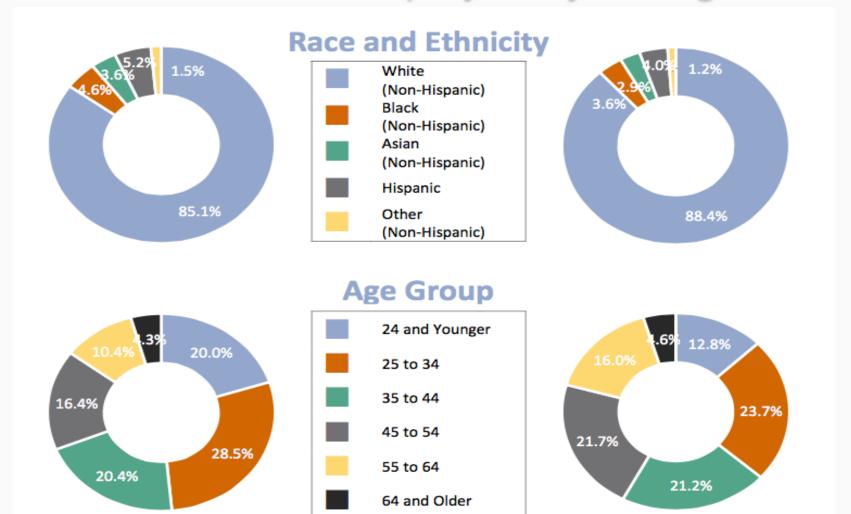








Who is Employed by Young Firms



Young Firms













1. Kauffman Index

- Focus on outputs (entrepreneurial activities)
 - Not inputs, such as venture capital \$, R&D, skilled labor
- Different dimensions of entrepreneurship exist
- To provide tools to assess, not to race up the ranking
- 3 types of indices
- 1) Startup
- 2) Mainstreet
- 3) Growth









Summary of Components Used Across Reports

Startup Activity		Main Street	Entrepreneurship	Growth Entrepreneurship		
EN ENTRE	Rate of New Entrepreneurs The percentage of adults transitioning into entrepreneurship at a given point in time		Rate of Business Owners The total number of business owners in a location at a given point in time	STARTUP CROWN	Rate of Startup Growth The average growth of a cohort of new startups in their first five years	
DE OF NEW CASE OF STREET	Opportunity Share of New Entrepreneurs The percentage of new entrepreneurs driven primarily by "opportunity" vs. "necessity"			CHARLE OF SCALEURS	Share of Scaleups The number of businesses that started small and grew to employ at least fifty people by their tenth year of operation as a percentage of all businesses ten years and younger	
THE TUP DENGIN	Startup Density The number of new employer businesses normalized by population		Established Small Business Density The number of businesses older than five years with less than fifty employees normalized by population	ALLES SOL	High-Growth Company Density The number of fast- growing companies with at least \$2 million dollars in annual revenue normalized by business population	



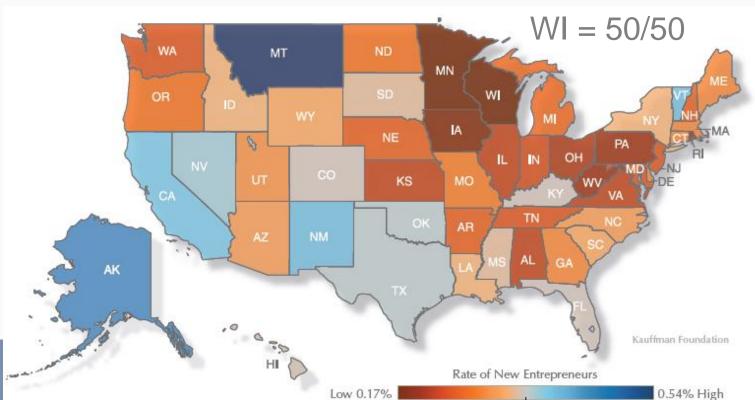






1.1 Startup Index

- 1) Rate of new entrepreneurs
- 2) Opportunity share of entrepreneurs
- 3) Startup density

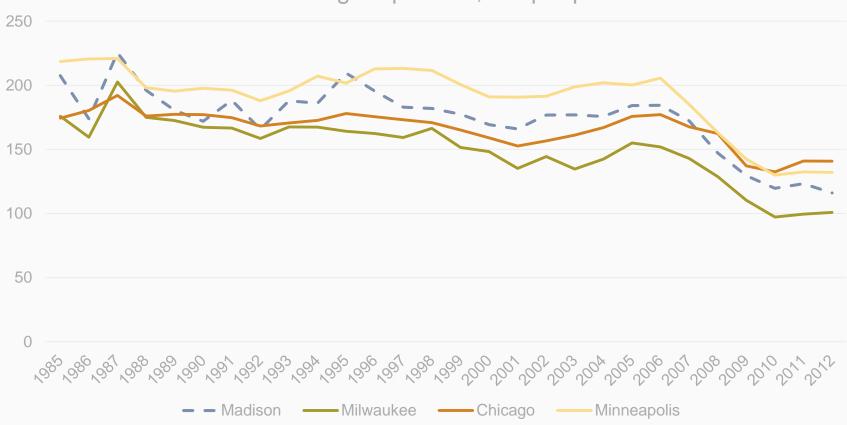


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Startup Density





Source: BDS for Firm Data, and BEA for Population Data

http://www.census.gov/ces/dataproducts/bds/data_firm.html and http://www.bea.gov/regional/downloadzip.cfm



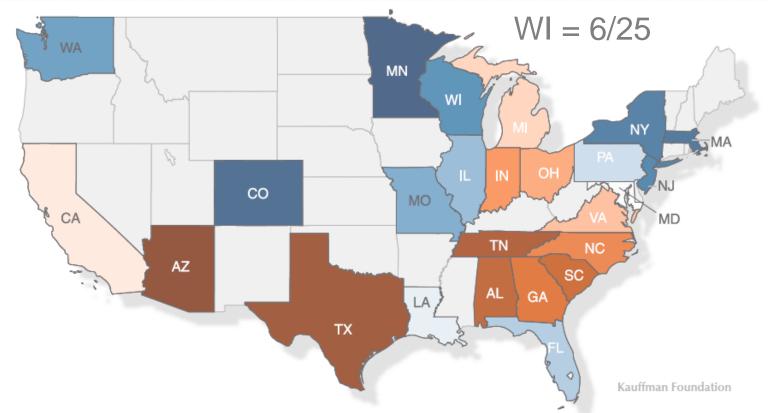






1.2 Main Street Index

- Index of small business activity
- 1) Rate of adults owning businesses
- 2) Rate of small employer



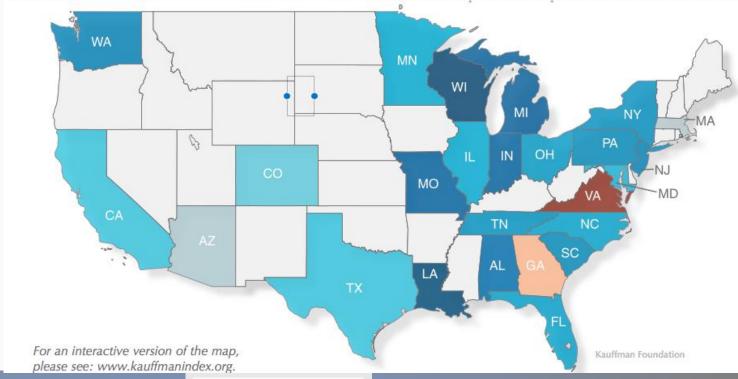


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1.3 Growth Index

- 1) Rate of startup growth 53.5%
- 2) Share of scale-ups 1.40%
- 3) Density of high-growth company 37.9

WI = 23/25













Other Cautions about Kauffman Index

- Only at the state level
 - High variation within a state, by metropolitan areas
- Only aggregate statistics
 - No sectoral or other breakdown
- Recent changes & dynamics may not be reflected
- Only a set of tools to assess
- You decide which data is useful and how best to use it
 - But not necessarily picking the most convenient index
- See also Conroy & Deller (2015), UW Agr Economics
- Also Stern & Guzman (2016), MIT Sloan School

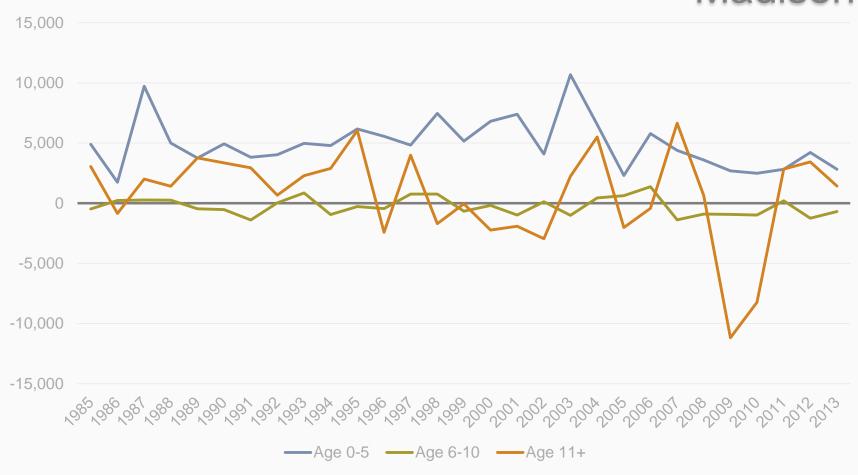








Net Job Creation by Firm Age Madison



Source: BDS

http://www.census.gov/ces/dataproducts/bds/data_firm.html









Madison Startup Growth Rate and Startup Density

- Madison's Rate of Startup Growth 72%
- Madison's Share of Scaleups 2.27%
- The average employment size in Madison startups grew 94.8% from 2008 to 2013.









2. Concept of Entrepreneurship Ecosystem

- Regional variation of entrepreneurship rates
- What do places with high rates have?
- Conventional elements of entrepreneurship ecosystem
- 1) Finance / risk capital
- 2) Incubators/Accelerators
- 3) Talent / skilled labor
- 4) University & research
- 5) Core customers
- 6) Support organizations & social capital











Domains of the Entrepreneurship Ecosystem

Early Customers

- Early adopters for proof-ofconcept
- . Expertise in productizing
- · Reference customer
- First reviews
- · Distribution channels

Networks

- · Entrepreneur's networks
- · Diaspora networks
- Multinational corporations

Labor

- Skilled and unskilled
- · Serial entrepreneurs
- · Later generation family

Educational Institutions

- · General degrees (professional and academic)
- · Specific entrepreneurship training

Government

Policy

Entrepreneurship

Supports

- Unequivocal support
- Social legitimacy

Leadership

- · Open door for advocate
- · Entrepreneurship strategy

Markets

Human

Capital

- · Urgency, crisis and challenge
- Institutions e.g. Investment, support
- Financial support e.g. for R&D, jump start funds

Finance

Culture

- · Regulatory framework Incentives
 - e.g. Tax benefits

- · Research institutes
- · Venture-friendly legislation
- . e.g. Bankruptcy, contract enforcement, property rights, and labor

Financial Capital

- Micro-loans
- Angel investors, friends and family
- Zero-stage venture capital
- · Venture capital funds
- · Private equity
- Public capital markets
- Debt

Success Stories

- Visible successes
 - Wealth generation for founders
- International reputation

Societal norms

- Tolerance of risk, mistakes, failure
- Innovation, creativity, experimentation
- Social status of entrepreneur
- Wealth creation
- · Ambition, drive, hunger

Infrastructure

- Telecommunications
- · Transportation & logistics
- Energy
- · Zones, incubation centers, clusters

Support professions

- Legal
- Accounting
- Investment bankers
- Technical experts, advisors

Non-Government Institutions

- Entrepreneurship promotion in non-profits
- Business plan contests
- Conferences
- Entrepreneur-friendly associations

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Questions to Consider

- Does injecting a missing element help?
 - Such as establishing venture funds or incubators
- Should all ecosystems look alike?
 - o The model after Silicon Valley?









Myth Element 1: Lack of Finance?

- Often the number one challenge for an entrepreneur
- Fate of VC-invested firms (Puri and Zarutskie 2012)
 - 33% acquired, 16% go public, 40% fail, 11% continue w/ no return
- 80% of VCs unable to return 3% return/yr (Bradley 2012)
- High-growth Inc firms:
 - o 6.5% VC, 7.7% angels vs. 67% savings, 14% bootstrapping, etc.
- Do they (entrepreneurs) really need VC investment?
- VC induce growth, or firm growth induce VC invt?
- Is that high failure rate acceptable for public sector?









Venture Capital Data

	# of Deals			Investment (\$ mil)					
	2014	2015	Total	2014	2015	Total	Pop (K)	#/Pop	\$/Pop
Madison	17	16	39	43.0	75.5	122.1	627	62.2	194.8
Milwaukee	2	1	5	7.4	2.3	11.6	1,572	3.2	7.4
Minneapolis	35	23	81	331.7	316.1	849.5	3,280	24.7	259.0
Chicago	86	71	210	954.4	880.2	2,206.3	9,730	21.6	226.8

Source: PriceWaterhouse Coopers. Money Tree Reports









List of VC Funded Firms

Company	Company Industry
Madison Vaccines Inc	Biotechnology
Zurex Pharma Inc	Biotechnology
FluGen Inc	Biotechnology
Zurex Pharma Inc	Biotechnology
EatStreet Inc	Consumer Products and Services
Silatronix Inc	Electronics/Instrumentation
Semba Biosciences Inc	Electronics/Instrumentation
Moveln Inc	Financial Services
Silatronix LLC	Industrial/Energy
Xolve Inc	Industrial/Energy
Drifty Co	IT Services
Murfie Inc	Media and Entertainment
Outdoor InSite LLC	Media and Entertainment
Swallow Solutions LLC	Medical Devices and Equipment
Healthmyne Inc	Medical Devices and Equipment
Neuwave Medical Inc	Medical Devices and Equipment
Rowheels Inc	Medical Devices and Equipment
Stealth Therapeutics Inc	Medical Devices and Equipment
Healthfinch Inc	Software
MLabs Inc	Software
100Health Inc	Software
Beekeeper Data Inc.	Software
DataBase Solutions Inc	Software
Healthfinch Inc	Software
PerBlue Inc	Software
Reciprocal Labs Corp	Software

Software

Software



Redox Inc

Thalchemy Corp

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Myth Element 2: Incubators / Accelerators

- Failure of incubators (Amezcua 2010)
 - Likely prolonging dying firms
 - Providing business services by 1.8 staff?
- Accelerators?
 - Competitive application process
 - Pre-seed investment, with equity exchange
 - Create a cohort of entrepreneurs, and focus on teams
 - Connect to mentors
- No evaluation research yet
 - Outliers (Y-Combinator, TechStars)
 - O What happens after being funded?









Myth Element 3: University

- Scientific research, NIH funding, etc.
 - Little connection b/w scientific discovery & commercialization (Motoyama et al. 2011)
 - Little connection with startup or high-growth firm ratios
 - But % college graduate is correlated (Motoyama & Bell-Masterson 2014; Motoyama & Mayer, forthcoming)









Ingredients vs. Recipe

- Great elements, but poor entrepreneurship result
 - o Baltimore (Feldman 1994; Feldman & Desrochers 2003)
 - Cleveland (Fogarty and Sinha 1999)
 - o Philadelphia, St. Louis, Albuquerque?
- Elements = Ingredients = Ecosystem?

Question:

How can you mix ingredients?









The Biggest Challenge of Most Ecosystems

(Brasunas, interview, December 10, 2012)

- The typical problem with entrepreneurs in St. Louis five years ago was like this:
- "I do this business alone, and I don't know other startups in town. I don't know investors here, and there is only old money from big corporations in St. Louis, so I go to Silicon Valley to find an investor."
- Then, if you talked to investors, they would say: "I don't find any startups in St. Louis, and, in fact, there may not be any prospective startups here, so I go to Silicon Valley to find companies to invest."
- So somehow, they might find each other in Silicon Valley, but not in St. Louis.









Alternative Strategy

Connect entrepreneurs to:

- Other entrepreneurs (peer and experienced)
- Support organizations
- Promote learning between entrepreneurs
- Not theoretical information, but experimental knowledge, how-to

Increase Dynamism by favoring incumbents less

- Promote creative policies
- Connect firms to customers instead of coaxing VC
- Tap into underutilized sources of funding
 - Debt
 - CRA Credits

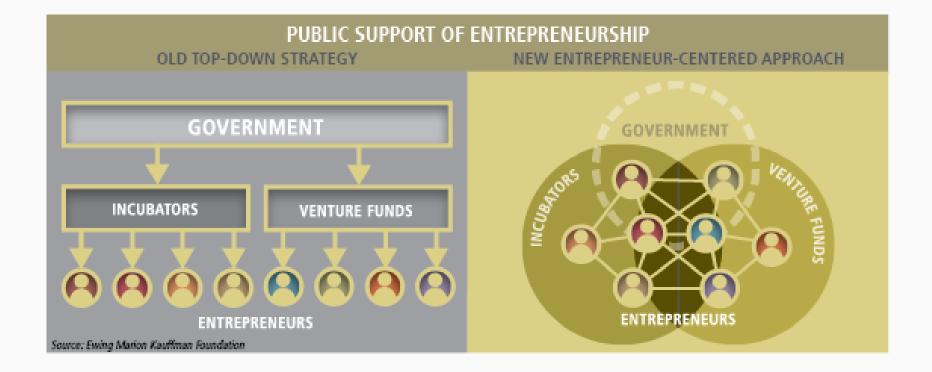








Increase Connections: Champion Entrepreneurship



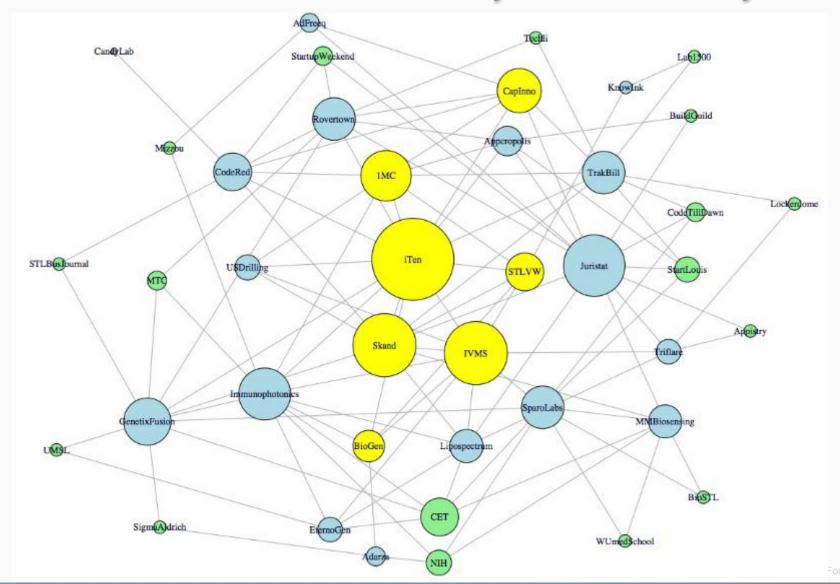








Connectivity within Ecosystem











Increase Connections: Welcome Immigrants

- Immigrants are twice as likely to start a business.
- 24 of the top 50 venture-backed companies in America in 2011 had at least one foreign-born founder.
- Immigrants have started have started more than half of America's startups valued at \$1 billion or more.
- Cities are implementing formal welcoming strategies
 - Welcoming America and Mosaic









Increase Connections: Leverage Existing Assets

- ☐ Incubators:
- A place to interact: Within incubated firms and outside
- Events to recruit different kinds & stages of entrepreneurs
- University:
- Connecting students and startup firms
- Human transfer > Tech transfer
- Create a flow of entrepreneurs within a region
- Are anchor companies helping?
- Enforcement of non-competence, occupational licenses
- ☐ Create a flow of entrepreneurs + others
- Between different groups of entrepreneurs
- Between regions









Increase Dynamism: Rethinking Municipal (and State) Regulation

- Design-Thinking policies, not Scared-Lawyer laws
- Procurement reform
- Leverage technology as a means not an end
- Often regulations acts as competitive advantage for incumbent firms
- Learn from entrepreneurs

The operating system of the "City" must change to meet new challenges and demands





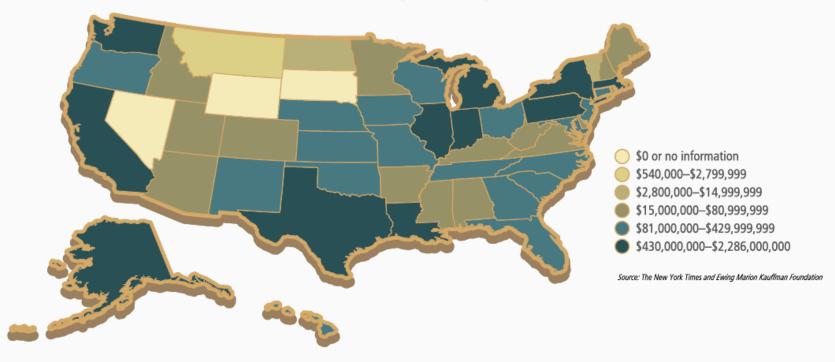






Increase Dynamism: Reconsider Tax Incentives

CORPORATE INCOME TAX CREDIT, REBATE, OR REDUCTION











Takeaways

Wisconsin in data

- Fine in small businesses, but weak in startup and growth companies
- But use this data only as a reference

Entrepreneurship ecosystem

- Not elements (ingredients), but connectivity (recipe)
- Are you promoting connections & learning of entrepreneurs?
- Are you increasing connectivity and dynamism?

Avoid the "Ecosystem Trap" (Stangler)

- Clearly define your goals, "more entrepreneurs" might be too broad
- Refine the language, ecosystems are messy, fatal places are you ok with that?









Consider Us a Resource

Entrepreneurship Policy Digest www.kauffman.org/poicydigest

Research and Reports www.kauffman.org/what-we-do/research

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