

# KENAN INSTITUTE CONFERENCE PROCEEDINGS



**January 18-19, 2018**

## FRONTIERS OF ENTREPRENEURSHIP RESEARCH CONFERENCE

**KI01201801**

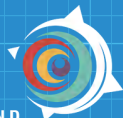


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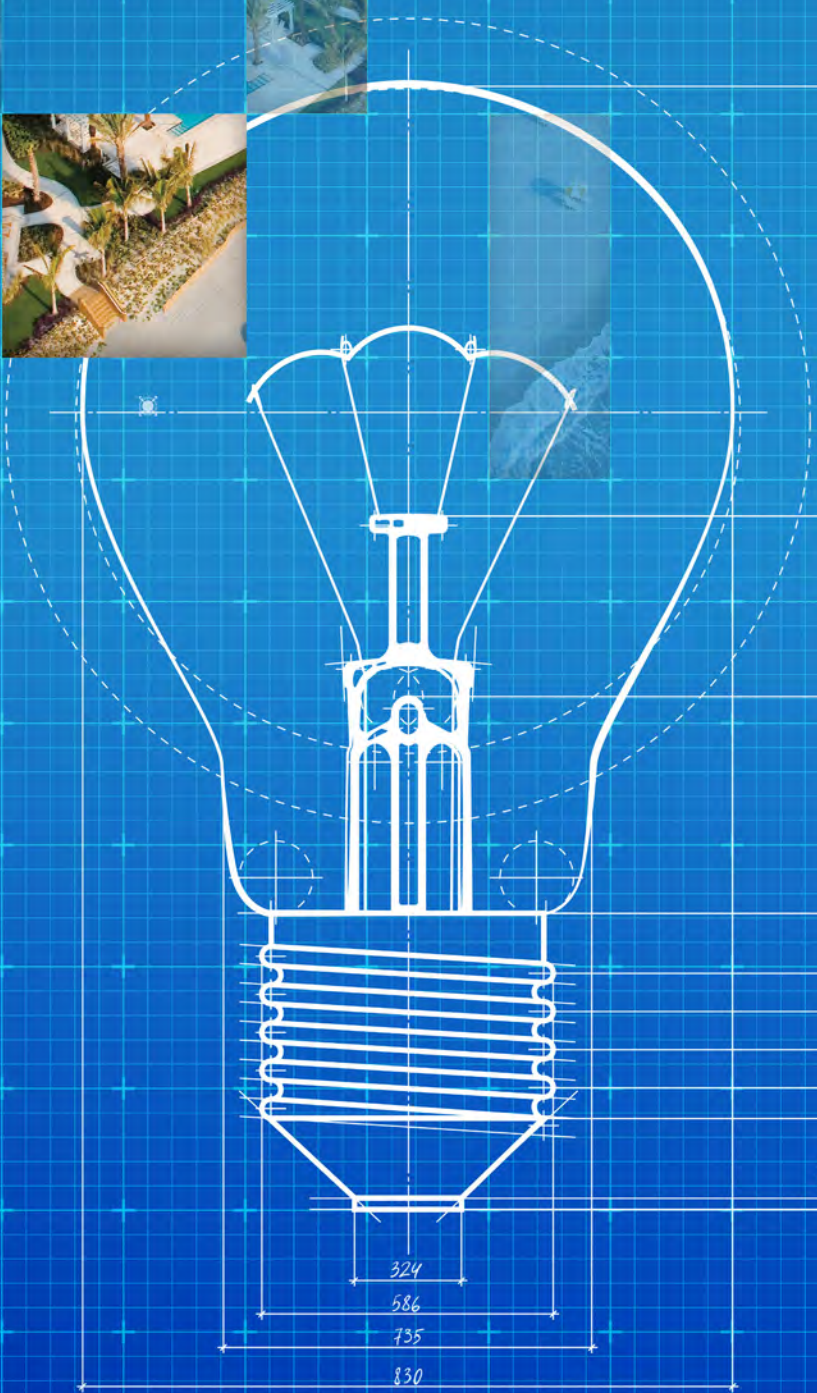
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## INTRODUCTION

“While entrepreneurship historically has been viewed as the lifeblood of free enterprise, many questions surround the resiliency of entrepreneurship and its efficacy in increasing economic productivity and improving society.”

**Greg Brown**

*Director, Kenan Institute of  
Private Enterprise*

On January 18 and 19, 2018, the Frank H. Kenan Institute of Private Enterprise (Kenan Institute) hosted its Frontiers of Entrepreneurship Research Conference at The Breakers Palm Beach Resort. The conference brought together more than 100 academic research scholars, policy experts and private sector professionals to discuss and debate the most challenging current issues in the field of entrepreneurship in order to set the agenda for future research and policy.

Kenan Institute Director Greg Brown opened the conference with an overview of how free enterprise and entrepreneurship drive economic prosperity. According to Brown, while entrepreneurship historically has been viewed as the lifeblood of free enterprise, many questions surround the resiliency of entrepreneurship and its efficacy in increasing economic productivity and improving society. Due to its interdisciplinary nature, entrepreneurship is a rapidly shifting and evolving field. Brown underscored the need to further entrepreneurial research from both a corporate and a policymaking outlook in order to move the discussion forward on adapting to this entrepreneurial evolution.

Finally, Brown outlined three primary goals for the conference:

- To better understand what we already know about entrepreneurship;
- To have conversations we would not otherwise have through an interdisciplinary approach; and,
- To decide on important issues we need to further explore across the field.

The proceeding summary offers highlights from each day's presentations and discussions.

## PLENARY SESSION

### HOW TO EVALUATE AND ENCOURAGE STARTUPS

*Steve Kaplan, Neubauer Family Distinguished Professor of Entrepreneurship and Finance, University of Chicago Booth School of Business; Phil Weilerstein, President, VentureWell*

Creating, building and investing in successful startups is difficult. On average, about 600,000 businesses with employees are started annually in the United States. However, only 100 to 200 U.S. companies – or less than one percent – go public each year. Additionally, only about half a percent of businesses get venture capital funding, and more than half of all venture capital investments lose money. To understand how to evaluate and encourage startups while improving their odds of success, a viable framework must be in place.

Prof. Kaplan calls this framework OUTSIDE-IMPACTS. OUTSIDE refers to external variables (opportunity, uncertainties, team, strategy, investment, deal and exit) while IMPACTS stands for internal factors (idea, market, proprietary, acceptance, competition, time and speed). By evaluating both the external and internal variables of the framework, entrepreneurs and venture capitalists can determine whether or not a given venture is viable.

A study on venture capitalists reveals they choose to invest for five reasons: market, management, strategy, competition, product and technology. In making their decisions, 40 percent of venture capitalists indicated the management team is the most important factor, with 14 percent revealing their decisions are based on the underlying business. When evaluating the team, venture capitalists look for industry experience, entrepreneurial experience, ability, teamwork and passion. Finally, they consider the valuation and viability of the investment to add value.

For startups, having an experienced team, good business model, up-to-date technology and an understanding of the market and industry are most important for attracting investors. As startups prepare to present to investors, they must believe they have a strong opportunity using the IMPACTS framework, in addition to ability, experience and passion. However, research indicates that underlying business opportunities and strengths are actually more correlated with business growth.

Kaplan also shared the University of Chicago's accelerator process, designed to help teach entrepreneurship and prepare startups for successful funding pitches. Teams are selected and evaluated based on their business plans. Each then goes through a rigorous process in which they use the OUTSIDE-IMPACT framework and receive feedback and assistance from venture capitalists and other resources. This helps complete their final presentation, compete for funding and generate a thriving business.

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"If an investment does not pass the test – leave it outside."

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Steve Kaplan

*Neubauer Family Distinguished  
Professor of Entrepreneurship and  
Finance, University of Chicago  
Booth School of Business*

Weilerstein opened his presentation by reflecting on VentureWell’s mission to cultivate a pipeline of inventors, innovators, and entrepreneurs to work on solving the world’s most pressing problems. He said his company does this by supporting educational programs and research that cultivate entrepreneurship and innovation; helping early-stage innovators launch ventures; and building networks to strengthen the innovation and entrepreneurship ecosystem.

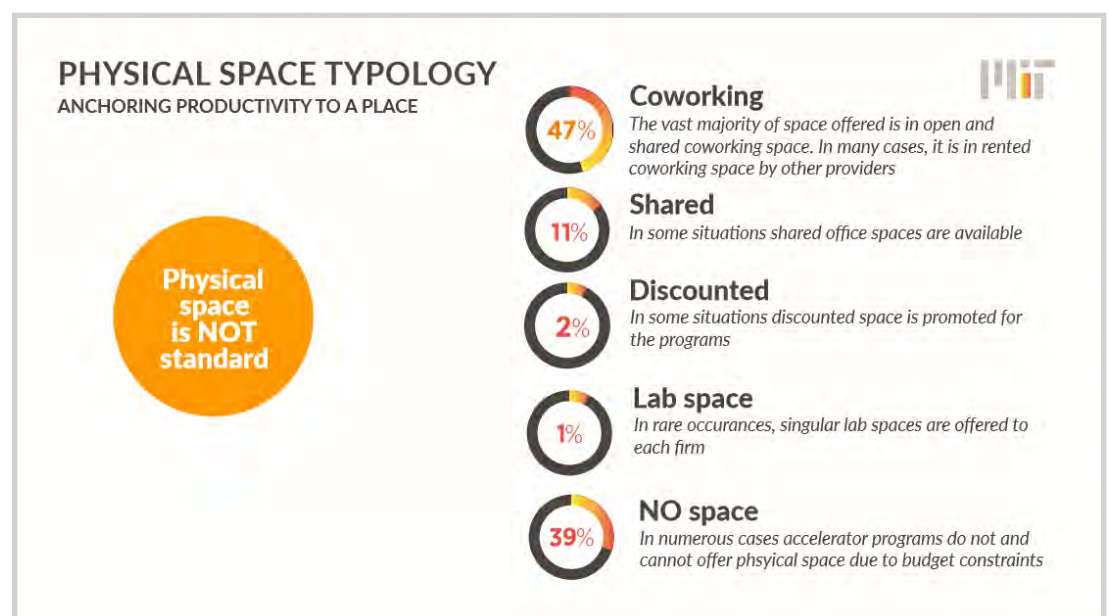
Weilerstein said providing more widespread access to entrepreneurship programs and opportunities, as well as increasing the effectiveness of existing programs, is critical to success. Hands-on, experiential learning should be included in entrepreneurship education. VentureWell provides grants to support secondary education programs and challenge faculty to cultivate student innovators in new and engaging ways.

## LINKING PERFORMANCE TO PEOPLE AND PLACES

*Andrea Chegut, Co-founder and Director of the Real Estate Innovation Lab, MIT*

Prof. Chegut’s approach to the conference topic correlated entrepreneurship and the role of accelerators and the physical spaces in which they reside. She explained how her work examines how physical space and place affect innovation. When it comes to physical working space, institutional investors care about ROI, but successful spaces go beyond traditional ROI to have a positive effect on the performance of the people and companies that inhabit them.

Chegut explained the concept of computational architecture, which involves rapidly transforming the geometry of forms to find optimal results, driving growth through firms’





equipment and physical space. In many instances, accelerators are a deliberate attempt to use a physical space to generate growth. As an example, Chegut described an accelerator program her team at MIT built. Their goal was to understand how the urban context of putting different industries in a shared space would work in creating economic growth in a geographic area traditionally not conducive to successful startups. The team analyzed data collected from 512 accelerator programs, examining entrepreneurial outcomes. They identified the time in which each firm was actually in an accelerator program and thus were able to see any impact the program might have had. The study also identified the programmatic and physical components of each accelerator.

Chegut's work showed that a shift is needed to integrate building structures and physical space with entrepreneurial performance. Determining which types of places support entrepreneurship is key.

## KEYNOTE SESSION

### RE-ENERGIZING THE AMERICAN ECONOMY

*Jim Clifton, CEO, Gallup Organization*

According to Mr. Clifton, the U.S. has not experienced a true recovery since it was hit with the global financial crisis (GFC). Startup activity is well below pre-crisis levels, a vast swath of the workforce is under-employed and productivity growth has dropped to less than one percent annually.

"In the current state of America, we have to get it right," said Clifton. "Going through a recovery suggests a whole set of different activities."





"In the current state of America, we have to get it right. Going through a recovery suggests a whole set of different activities."

Jim Clifton

CEO, Gallup Organization

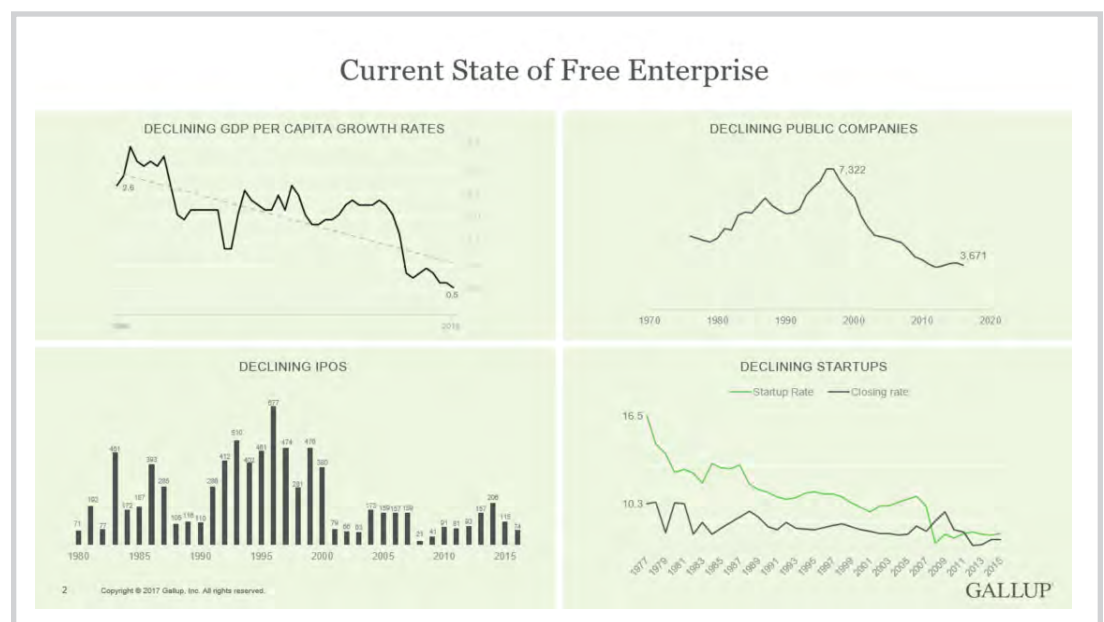
Productivity has been the traditional benchmark for the U.S. economy, but in this recovery environment, it may not be the most accurate measure. Clifton noted we must instead focus on labor productivity growth. For instance, he noted GDP per capita has grown more slowly in the current recovery than in any other expansion period since World War II.

Although the economy has grown for eight consecutive years, corporations are struggling with how to genuinely expand rather than to just cut costs, and the median household income remains below pre-GFC levels. Instead of organic growth, companies are relying on an unsustainable strategy of acquisitions to drive profits. As Clifton noted, "In this type of environment, we will go broke."

According to Clifton, our future lies, in part, in tapping the four million students graduating from high school in the U.S. each year. "If we can identify the very best students, the half of one percent that possess truly exceptional entrepreneurial abilities, these 20,000 annual graduates can change the trajectory of the U.S. economy," he said, "I don't think we can do it unless we change what we believe."

"I don't think we can do it unless we change what we believe."

But Clifton said finding this next generation of entrepreneurs can't rely on traditional methods for evaluating ability. While we have long held a focus on intelligence and SAT scores, he said, relatively little research has been devoted to identifying the personality characteristics that make a great entrepreneur. A resolution for this dilemma is to develop and disseminate new screening tools and predictive analytics. To that end, Gallup has interviewed some of the world's most successful entrepreneurs to identify the traits they



share. Interestingly, Gallup's research suggests that the skills that make a great entrepreneur are not highly correlated with intelligence or success in primary or secondary school.

The organization has begun to put its research into action by implementing a partnership program with the University of Nebraska to help develop students with a high propensity to become successful business founders. Identified students are offered internships and work directly with faculty and mentors to cultivate their skills, with the expectation that each student will start a business before graduation.

Clifton concluded with his belief that, while it's possible America can boom once again, the country will not be able to do so until we can identify a systematic supply of entrepreneurs to feed the U.S. economy.

## BREAKOUT SESSIONS

### THE STATE OF ENTREPRENEURSHIP

*Chair: Maryann Feldman, Heninger Distinguished Professor in the Department of Public Policy at the University of North Carolina-Chapel Hill*

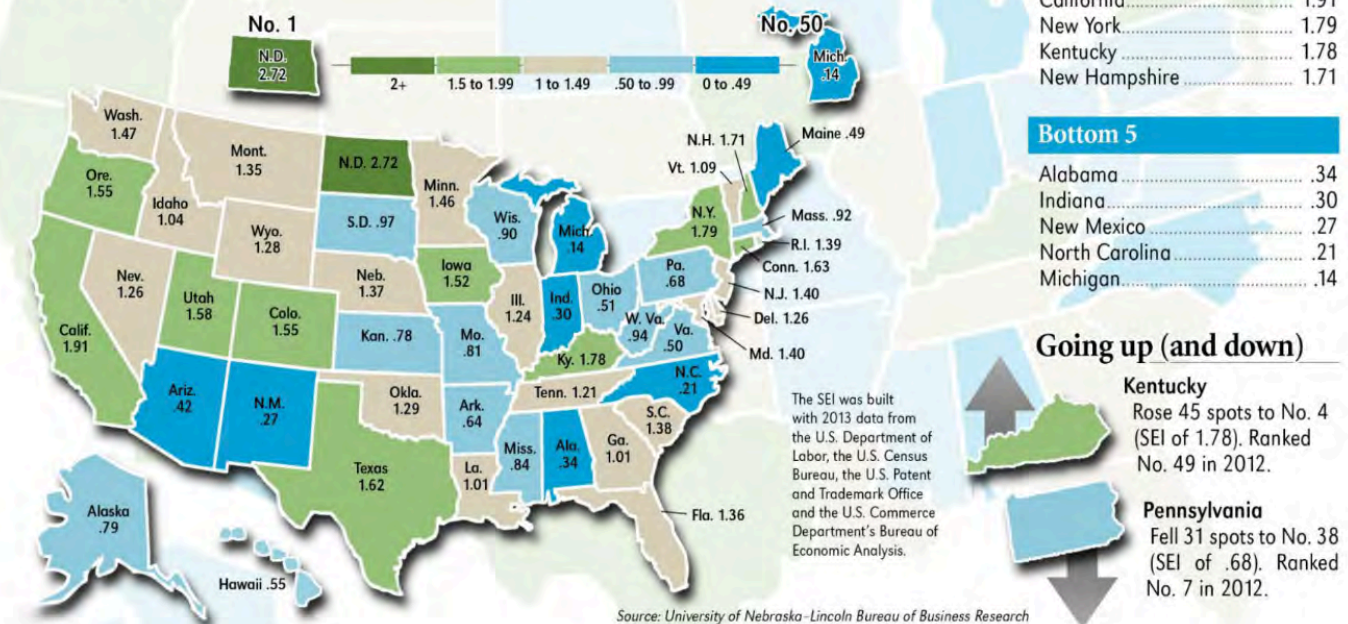
*Panelists: Ryan Decker, Adjunct Professor at the University of Maryland-College Park; Anne Glover, Co-founder and Chief Executive Officer and Managing Partner, Amadeus Capital; G. Nagesh Rao, Chief Technologist and Entrepreneur-in-residence, U.S. Small Business Administration's Office of Investment & Innovation; David Robinson, Professor of Finance and the J.Rex Fuqua Distinguished Professor of International Management, Duke University Fuqua School of Business*

Prof. Feldman opened the session with an overview of trends regarding entrepreneurship programs and accelerators. Despite the growth in potential support for new firms, she said, formations have not stabilized since the GFC and structural problems abound. Better sourcing and promotion of funding opportunities and other resources is needed to help entrepreneurs succeed.

The group discussed that in some countries, being an entrepreneur is not an option--if you don't find a job for yourself, you don't eat. However, in the United States and other developed countries, the entrepreneurial climate is intentionally hospitable given entrepreneurial ventures are responsible for a large share of job creation, with 15 to 20 percent of those jobs coming from new firms annually.

## State of Entrepreneurship

The State Entrepreneurship Index tracks core trends and reflects states' entrepreneurship environments, growth in business formation and technological innovation. Each state index is calculated by comparing five key economic components and determining how much their performance deviates above or below the "median state," which is assigned a value of 1.0.



## ENTREPRENEURSHIP IN DIFFICULT ENVIRONMENTS

Chair: Leora Klapper, *Finance and Private Sector Research Team, Development Research Group, World Bank*

Panelists: Peter Cornelius, *Managing Director, AlpInvest Partners*; Gil Crawford, *Chief Executive Officer, MicroVest*; Shon R. Hiatt, *Assistant Professor Business Administration, USC Marshall School of Business*; Samee Desai, *Director of Research, Ewing Marion Kauffman Foundation*

Dr. Klapper kicked things off by sharing metrics from Gallup World Poll data indicating adults who start businesses in countries with more robust business environments do significantly better than other entrepreneurs, with women entrepreneurs enjoying an even greater boost than their male counterparts. The panel addressed the definition of a difficult environment, explored what makes these environments difficult and discussed the implications of such environments for entrepreneurs.

Dr. Samee Desai discussed a trip she took to Puerto Rico after Hurricane Maria. In her effort to find the disaster relief staging, she met an entrepreneur who had been providing essential supplies to people across the community. In spite of her evident role as a local business leader, the woman did not think of herself as an entrepreneur, but rather



just someone filling an immediate economic need. In many ways, this story is repeated throughout developing and disconnected economies.

Although the perception of a difficult environment may be skewed toward developing countries, there are pockets of difficult environments in developed countries like the United States as well. Consider geographic regions where banks don't want to lend and other businesses won't extend credit and other barriers that curb entrepreneurial progression.

Prof. Hiatt followed by discussing some of the best-known barriers for would-be entrepreneurs: federal and state government regulations. He noted bureaucracy makes it difficult for new entrepreneurs to enter the market. Consequently, understanding how to lower regulatory barriers means understanding how to work with government processes and people to achieve more desirable policies.

The U.S. Congress, for instance, writes vague laws, while federal and state agencies tend to overregulate. In attempting to understand how to generate wealth we need to figure out how to level the playing field to give entrepreneurs a fair shake.

Mr. Crawford introduced ways capital can get to small businesses that would otherwise not be able to scale operations. For example, MicroVest indirectly funds small businesses that are unable to acquire capital by directly funding microfinance agencies.

The panel wrapped with additional discussion of points that require new research, such as the intersection of entrepreneurs and supply chains; regulation and the role of regulator discretion, persuasion and enforcement; what market conditions stimulate productivity growth and job creation; and the impact of state and foreign ownership in the private and financial sectors on entrepreneurial finance.

## ENTREPRENEURIAL LABOR

*Chair: Paige Ouimet, Associate Professor of Finance at the Kenan-Flagler Business School, University of Carolina-Chapel Hill*

*Panelists: Howard Aldrich, Kenan Professor of Sociology, Adjunct Professor of Business, University of North Carolina-Chapel Hill; Tania Babina, Assistant Professor of Business, Columbia Business School; Kristoph Kleiner, Assistant Professor of Finance at Indiana University; Henry Sauerman, Associate Professor of Strategy, POK Puhlinger PS Chair of Entrepreneurship at ESMT Berlin*

Prof. Aldrich began the session by sharing the notion that most entrepreneurs have previously served as employees of other businesses. Exploring the time these entrepreneurs have spent in organizations and businesses prior to launching their own startups, he

argued, could be both beneficial and consequential to better understanding the selection and direction of their career path. Today's employees become tomorrow's entrepreneurs, and understanding how they think and function can help us understand the motivating factors behind those who ultimately make the leap to running their own business. In the current business climate in which larger firms are struggling with recovery and small businesses account for 80 percent of new job creation, we would do well to reshape employees' mindsets to consider entrepreneurship as part of their career trajectory.

Information gathered from data sets of projects in Sweden, Denmark and Portugal demonstrate there is a strong negative association between entrepreneurial entry and size of the organization. The results also indicate that certain types of people choose smaller firms, and others prefer a larger setting. In short, there is significant volatility in the labor market produced by the coming and going of small firms and this affects which employees are employed by those firms.

Prof. Babina validated this statement by zeroing in on wages at new firms. Although new firms generally offer lower wages, they have a disproportionate share of innovation and productivity increases.

Employees accept the lower wage tradeoff at young or smaller firms for other, non-financial benefits or the chance to experiment. New firms pay 26 percent lower wages on average than established firms and are frequently unable to attract a higher-quality workforce, yet there is no significant productivity disparity between them and established firms. These findings imply financial constraints affect the human capital accumulation at the firm, but our challenge is to find out why low-wage workers are matched to low-wage new firms.

This introduced research by Prof. Kleiner, examining the correlation of peer influence and decision-making as it relates to starting a business. Kleiner's research found a causal relationship between having peers with entrepreneurial ambitions and one's own entrepreneurial motivation. On the other hand, individuals who know someone who failed at running a business are much less likely to start one themselves.

Prof. Sauerman reinforced this notion, sharing data indicating that startups employ a higher number of entrepreneurial individuals, but that attracting and retaining human capital is a critical hurdle founders face in their efforts to build successful ventures. Entrepreneurs may be inefficient in matching job candidates with open positions, be unsuccessful in finding candidates with the necessary skills and experience, or face other human capital constraints.

While entrepreneurship is growing, policymakers should consider a broader range of policies that will allow individuals to realize their interests as they work for established

firms, to gain knowledge and support for an eventual progression into entrepreneurship.

To conclude the session, participants raised questions exploring a number of issues, such as the development of microenterprises, the differences between founding and self-employment, the distinction between new firm founders and joiners, and whether the results for one group can generally apply to the other. Additionally, they touched on the challenges of classifying those business owners who don't fit the traditional definition of an entrepreneur, such as business leaders who purchase existing companies and rapidly double or triple revenues. This and other queries must be explored and considered when evaluating entrepreneurship and its effects on labor.

## ENTREPRENEURIAL ECOSYSTEMS

*Chair: Mahka Moeen, Assistant Professor of Strategy and Entrepreneurship, Kenan-Flagler Business School, University of North Carolina-Chapel Hill*

*Panelists: Kathleen Eisenhardt, Stanford W. Ascherman M.D. Professor and Co-director, Stanford Technology Ventures Program; Mary Ann Glynn, Director of Research, Winston Center for Leadership and Ethics, Boston College Carroll School of Management; Arnobio Morelix, Director of Research, Startup Genome; Amit Singh, Founder & CEO, SpectraForce Technologies*

Prof. Eisenhardt started the panel with a deep dive on how firms can successfully navigate ecosystems. From a strategic point of view, she said, firms have to cooperate with each other to collectively produce a sense of value, but there are specific features in ecosystems that influence this cooperation and competition. As a case study in navigating cooperative competition, Eisenhardt introduced a study following five firms which all started at the same time and in the same place.

Eisenhardt's study identified three features of ecosystems:

- Ecosystems are organized around a final product or solution such that their components are complementary;
- Bottlenecks constrain the overall growth or performance of the ecosystem due to insufficient quality, poor performance or scarcity; and,
- Firms both cooperate to create value and compete to capture value.

Entrepreneurs must grasp the fundamental economics of the type of business they are starting. The importance of understanding where the bottlenecks are and how to operate efficiently through them is essential to success, Eisenhardt said.

Prof. Glynn followed Eisenhardt by discussing entrepreneurial tensions. Finding that



ecosystems stretch beyond the industry into society and taking into account international considerations, she used a focus on culture to connect back to the opening of the conference where Prof. Greg Brown noted that “there’s more to generating prosperity than technology.”

Glynn defined cultural entrepreneurship as the process by which individuals draw upon cultural resources to advance entrepreneurship. The discussion centered on how entrepreneurs build culture in their firm, develop a team dynamic, and formulate norms and values. Institutional capital, or the cultural toolkit, helps firms create their own narratives to understand their businesses and convey their story to others. This identity formation is crucial to the success of new businesses.

Mr. Morelix followed with a discussion of ecosystems, why they matter and the problem of uneven global distribution of ecosystem value. Currently, he said, 75 percent of exit value in the technology sector is concentrated in 10 cities. Describing his work at the Startup Genome, Morelix shared how he is gathering data around three core ideas about ecosystems. The first is ecosystem triggers -- understanding how ecosystems develop over time, and taking the right action at the right time. The second is global connectedness, which is rooted in people. The third suggests companies in high-performing regions should focus on one particular industry and benchmark those gains. The challenge is getting this data and applying it to help policymakers make more informed decisions.

The panel outlined a number of questions for further discussion, including the logic for ecosystems, the importance of physical boundaries and the need for funders to invest in skills and training.

## KEYNOTE SESSIONS

### FIRESIDE CHAT

*Brett Palmer, President, Small Business Investor Alliance; Scott Kupor, Managing Partner, Andreessen Horowitz and Chairman, NVCA*

Mr. Palmer began the discussion by asking Mr. Kupor about the decline in venture capital investment over the past 20 years. Two decades ago, 90 percent of venture capital dollars were in the U.S. Today, only 54 percent of venture capital investment is in this country.

In spite of the drop in venture capital funding, however, Mr. Kupor said that the state of entrepreneurship is relatively healthy, and that the statistics showing entrepreneurship to be on the decline are deceptive. Referring to it as “a tale of two cities,” he said that the number of new seed funds in the U.S. has grown by 400-500 firms in the past 10 years – but that this growth is concentrated predominantly in the geographic areas of California,

Massachusetts, and New York. Lower startup costs and the democratization of early-stage venture capital investment have resulted in a healthier venture capital market, but the challenge now is to balance that investment across the U.S.

One of the solutions is to determine what a specific geographic region's domain expertise is, and focus investment on startups within that domain. From there, a broader network can be built out. Another factor is changing policy to reintroduce capital into the community banking system. In response to the financial crisis, federal regulation effectively cut off banks from these types of investments. Changing the rules to allow local banks to provide early-stage capital would help spread entrepreneurship to other parts of the country.

One of the biggest challenges to entrepreneurship today, said Kupor, is the average age of startup owners. The majority of the entrepreneurs his company funds are under 30 years of age. The advantage to such a young cohort is that they're fearless when it comes to starting a business. The disadvantage is that many of them have little to no prior work experience. While they may be well poised to start a company, once the company begins to grow, they frequently have issues with corporate governance and oversight due to their lack of experience.

Finally, the discussion moved to a comparison of IPOs and acquisitions. According to Kupor, the average time for a company to go public used to be six and a half years. Now, it is almost double – from 10 to 12 years. In addition, historically, the split between IPO and acquisition as a next step for companies used to be 50-50. For the last 10 years or so, it has been 80-20 in favor of acquisitions.

There are several reasons for both the longer timeframe to go public and the smaller percentage of companies favoring IPO over acquisition. Policy-forced structural changes in the capital markets have made IPOs less attractive to companies, particularly smaller cap companies. In addition, going public invites greater scrutiny, which many startups are reluctant to open themselves to.

The shift away from IPOs and the longer IPO timeline have implications for the economy. IPOs tend to create job growth, while acquisitions often lead to a loss of jobs. IPOs also help with the democratization of access to returns. When companies take longer to go public, more of their appreciation remains in the private markets, rather than the public markets. Kupor compared publicly held Microsoft with private company Facebook. "If Facebook were to return the same amount in the public markets that Microsoft has returned," he said, "Facebook's estimated worth would be 54 trillion dollars."



## DEATH, DESPAIR AND JOBS: IS CAPITALISM FAILING AMERICA?

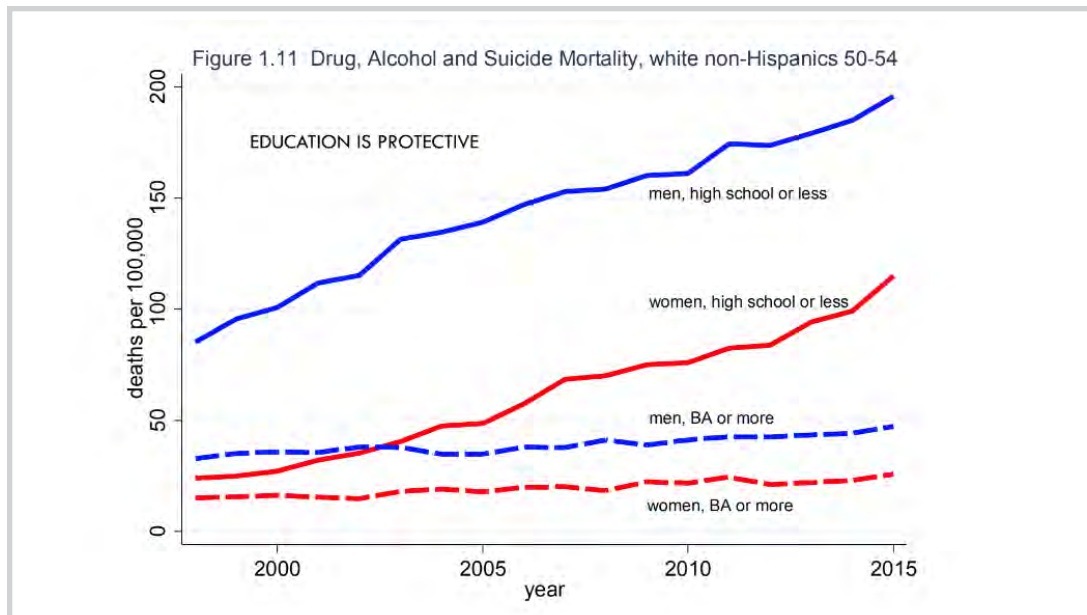
*Sir Angus Deaton, 2015 Nobel Prize Winner in Economic Sciences, Senior Scholar, Dwight D. Eisenhower Professor of Economics and International Affairs Emeritus, Woodrow Wilson School of Public and International Affairs, Princeton University*

Sir Angus Deaton provided an in-depth analysis of so-called “deaths of despair” (those due to suicide, alcohol or drug use) in relation to the labor market, focusing on mortality rates from 1999-2015.

When examining these mortality rates, Deaton found that those who had attained less than a bachelor’s degree had much higher rates of deaths due to suicide, alcohol or drug use than those who had a bachelor’s degree or higher. Additionally, he found those who did not have a bachelor’s degree were more likely to report chronic pain, mental distress and drinking. They were also more likely to have never been married, to work for low wages and to have been out of the labor force for an extended period of time. He found this divide to be more significant among younger generations than their older counterparts.

Compared to 1995, he said, today’s job market can be characterized as a harsher, less dynamic environment that caters to those with a bachelor’s degree or higher and penalizes





those with less education. Deaton explained this is in part due to globalization and technological change, and these challenges are not limited to the United States. But while other countries are meeting the challenge to find solutions, U.S. labor policy lags behind.

A tougher labor market also means more outsourcing, fewer employee benefits and a less sturdy corporate ladder for employees to build a career on within their organizations. With more competitive markets than ever before, the need for a college degree and an entrepreneurial mindset is increasingly essential.

## DAY TWO PLENARY SESSION

*Carolyn Rodz, Founder of Alice and Circular Board*

Ms. Deborah Hoover, president and CEO of the Burton D. Morgan Foundation, introduced the session by discussing how her organization provides financial and intellectual capital to bring together a robust network of organizations focused on entrepreneurship and entrepreneurship education. The foundation's research center works to provide tools and resources to advance the cause of entrepreneurship education, which has begun to come of age, but which still relies on the intersection of philanthropy, industry, and academia to determine the future of both research and application.

Ms. Rodz opened the conversation with a discussion on the power of data. Concerned about current ecosystems and their lack of effectiveness in distributing resources to women and minority entrepreneurs, she founded Alice – an organization that works to create a digital ecosystem to support such entrepreneurs.

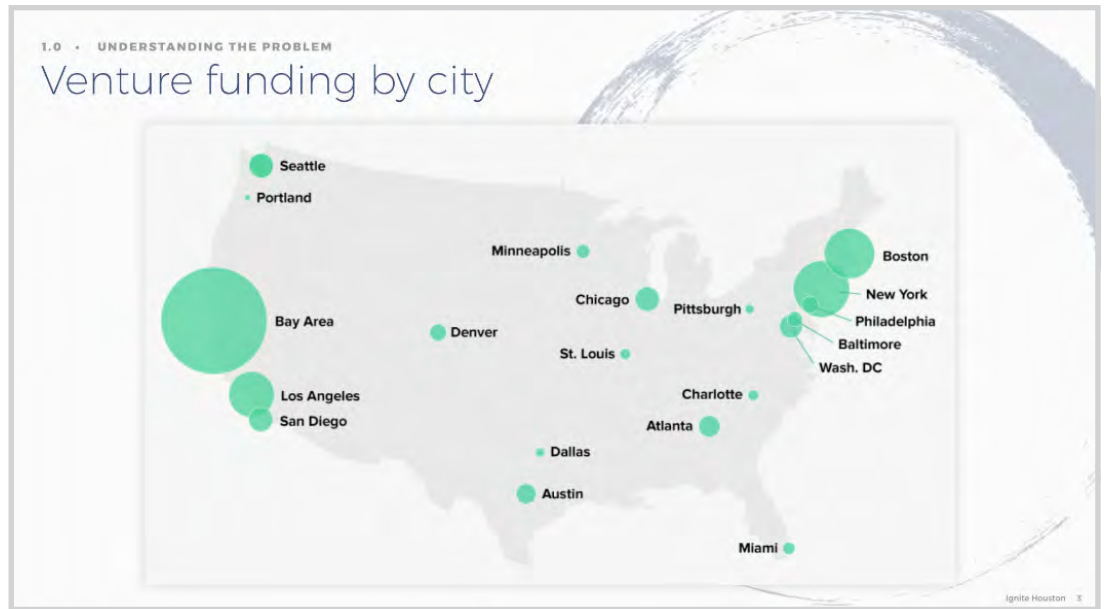
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“If we don’t change the model, we’ll never change the world.”

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Carolyn Rodz

Founder of Alice and Circular Board



While there are a number of organizations working to gather data and offer new resources to entrepreneurs, there remain a significant number of entrepreneurs who are disconnected from these resources – many of them women and underrepresented minorities. While many venture capitalists indicate they want to invest in these entrepreneurs, they report not having the time to seek out these companies.

To address this problem, Rodz and her team began to research the existing barriers for participation for these groups. They found that historically many female entrepreneurs in rural areas have had to relocate to urban accelerator programs to succeed. To address this location challenge, Rodz created Alice, a virtual accelerator that is accessible to entrepreneurs all over the world. Alice is now driving significant change for entrepreneurs who otherwise would have struggled due to location.

One example is Medolac, a producer of commercially-sterile human breast milk products founded by a mother-daughter team from Oregon. Before joining Alice, they had access to few resources and were unable to gain traction within the venture capital community. Today, they are thriving and making a real difference for families around the globe.

Rodz emphasized the importance of creating both a physical and digital hub to build connections among entrepreneurs and funders and to widen the pool of resources available to women and minority entrepreneurs. The goal, she said, is to create an open city model that will allow entrepreneurs to connect more effectively, regardless of background or location. Rodz left the discussion with a challenge for everyone: to consider the issues women and minorities face as entrepreneurs and the economic impact they can generate if their situations are improved.

*Wendy Guillies, President and CEO, Ewing Marion Kauffman Foundation*

Ms. Guillies offered an update on the Kauffman Foundation's work, primarily its efforts to improve the economy and broader society by investing in entrepreneurial research and partnering with students, teachers and schools.

Considering the landscape of entrepreneurship in America, business growth is improving, new companies are reaching scalability and startups are increasing after effects of the global financial crisis (GFC). Although this is good news, startup rates are still lower than they were before, forcing net job creation to remain stagnant. Currently, businesses five years old and younger are the only sector in which job creation is blooming, while businesses between six and 25 years have neutral or negative levels of job creation. The worst-case scenario belongs to businesses 26 years and older, as they are losing more jobs than they are creating.

Guillies referenced research showing three major trends affecting the face of entrepreneurship in the United States. The first, new demographics, finds non-minorities twice as likely to own employer businesses in the U.S. by the year 2050. Guillies said that





alone marks a significant opportunity loss for the country.

The second, the new map, represents a shift of startups from bigger cities and settling into mid-sized markets including those in the middle of the country.

Finally, the new nature of entrepreneurship deals with evolving technology, which is allowing companies to scale up more quickly and more effectively than ever before.

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“Our mission’s success will not be measured by the number of papers published, our success will be measured by something as simple as lowering the barriers so that anyone who wants to take a risk, who wants to take that jump, can do so with as few hurdles as possible. This is the best time in our history to be an entrepreneur.”

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Wendy Guillies

*President and CEO, Ewing Marion  
Kauffman Foundation*

Taking these trends into account, Guillies suggested the need to encourage more startups and to expand entrepreneurship while spreading the benefits of entrepreneurial ecosystems to local communities across America. That’s why she said the Kauffman Foundation’s focus is to increase entrepreneurship rates by eliminating barriers to startup entry. This occurs through three key strategies the foundation uses to help accelerate entrepreneurship. These include:

- **New entrepreneurial learning**  
The foundation has a series of programs, including One Million Cups, a weekly meetup designed to bring entrepreneurs together. There are currently 150 communities in this program and it is steadily growing. FastTrac, which was launched by Kauffman as an educational system to guide entrepreneurs, has now expanded to an online platform. The foundation has also developed computer learning platforms, where entrepreneurs can share knowledge and best practices.
- **Eliminating market gaps**  
This will help level the playing field for entrepreneurs on a demographic, geographic and issue-specific level.
- **Developing entrepreneurial communities**  
This involves using the principles, tools and metrics of successful entrepreneurial communities to develop a practical playbook for communities.

The foundation is using these strategies to provide practical answers, develop testable models and translate science into action to make a difference.

Guillies concluded with an expression of hope for the future of entrepreneurship, emphasizing the need for people to work across sectors to eliminate barriers and support startup growth.

## BREAKOUT SESSIONS

### TEACHING ENTREPRENEURSHIP

*Chair: Ted Zoller, Director, Center for Entrepreneurial Studies, UNC Kenan-Flagler Business School*

*Panelists: Thomas Byers, Professor of Management Science and Engineering and Co-Director of the Stanford Technology Ventures Program, Stanford University; Yael Hochberg, Ralph S. O'Connor Professor in Entrepreneurship and Academic Director for the Rice Alliance for Technology and Entrepreneurship, Rice University; Elizabeth Lyons, Assistant Professor of Management, School of Global Policy and Strategy, University of California-San Diego; Jed Simmons, Entrepreneur-in-Residence and Adjunct Professor of Entrepreneurship, University of North Carolina at Chapel Hill*

Prof. Hochberg led off the panel by introducing three questions focused on teaching entrepreneurship: Does teaching entrepreneurship involve more than just teaching general business acumen? Can business schools impart the unique skills and traits that make for successful entrepreneurs? And now that entrepreneurship programs have come of age, what lessons have educators learned?

Hochberg made several suggestions for improving entrepreneurship curricula. She advocates teaching entrepreneurship and innovation by combining solid academic theory founded on a firm understanding of economics and strategy with co-curricular opportunities. She also discussed the importance of combining tenured faculty well-versed in cutting-edge, practical applied research with faculty with real-world experience in entrepreneurship.

Prof. Lyons continued the conversation by presenting the results of a study on entrepreneurship and innovation training. The study showed that individuals who are amenable to entrepreneurship training are also most likely to seek other types of training on their own. An additional finding is that individuals who enroll in entrepreneurship training tend to be those who are most confident in their ability to become a successful entrepreneur. Demographically speaking, the study showed that white males appear to be much more confident than women and minorities in completing training programs, and that project-based trainings are important to women.

Next, Prof. Byers asked the audience to consider the 25-year history of entrepreneurship education programs, from the early days of just a handful of entrepreneurship courses to full-blown entrepreneurship-focused curricula. Byers discussed a 2011 National Science Foundation grant-based effort in which he and his team founded a lab and research program that continues to this day. The program is part of Stanford University's School of Engineering, but incorporates the foundations of entrepreneurship and innovation.

Next, the panel raised the question of whether entrepreneurship programs are adequately preparing graduates for realities of the workforce, and whether a one-size-fits-all approach works. One of the realities of the current economic climate is that the number of graduates from such programs currently exceeds the number of available entrepreneurial positions.

The panel also examined the elements of successful entrepreneurial programs, including coaching, collaboration, reflection, apprenticeship and real-world experiences. Also critical is helping students develop an entrepreneurial mindset, and allowing them a certain amount of failure.

Key takeaways from the session on what is necessary for future entrepreneurship education to be successful are a firm foundation in business, exposure to real-world experience, fundamentals of entrepreneurial finance and a balance between a grounding in relevant frameworks and experiential learning.

## ENTREPRENEURIAL FINANCE

*Chair: Olav Sorenson, Frederick Frank '54 and Mary C. Tanner Professor of Management, Yale School of Management*

*Panelists: Bobby Franklin, President & CEO, National Venture Capital Association (NVCA); Laura Lindsey, Associate Professor of Finance, W.P. Carey School of Business, Arizona State University; Marc Paul, Partner, Baker & McKenzie LLP; Matt Rhodes-Kropf, Managing Partner, Tectonic Ventures and Associate Professor of Entrepreneurship at MIT Sloan School*

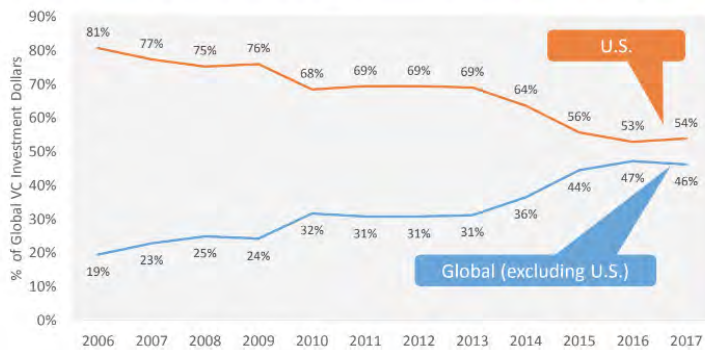
Mr. Franklin started the session with a look at the recent history of entrepreneurial finance. Twenty years ago, 90 percent of U.S. venture capital went to startups. Ten years later, that fell to 81 percent. For the past two years, it has fallen to about 54 percent. Although venture capital investment in startups is growing around the world, it is dwindling in the United States.

President Trump's tax bill, Franklin said, will have the greatest policy impact on venture capital in 2018. The National Venture Capital Association is working to help get policies in place that focus on incentivizing long-term capital investment to grow the economy. Franklin said that nuances in the tax bill will adversely affect small businesses, and he advocated changes to better foster small business growth. The challenge, however, is in dealing with policymakers, who perhaps do not fully understand the implications of their decisions on small businesses.

Mr. Paul, a recent chairman of Baker McKenzie's North America Private Equity Subgroup, gave an overview of the existing U.S. regulatory framework and new rules that affect

## U.S. Share of Global VC Activity Declining

% of U.S. vs. Rest of World Venture Capital Investment Dollars (2006-2017)



Though overall global VC investment has increased, the U.S. share has declined, from more than 80% in 2006 to 54% in 2017

Source: 4Q 2017 PitchBook-NVCA Venture Monitor

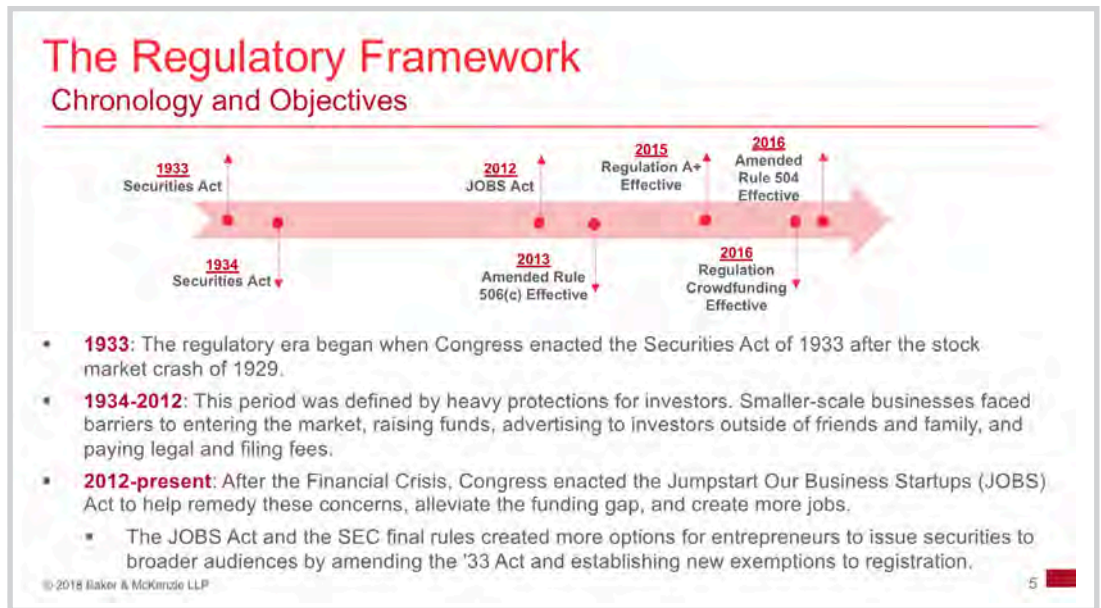
investors. He discussed private equity limits and provided a summary of venture capital investment over the past four years.

Prof. Rhodes-Kropf presented information on how the lean startup model has affected venture capital spending. Rhodes-Kropf said that decreasing costs for starting new businesses and technology's impact on the speed at which innovation can occur have changed the landscape for venture capitalists. In general, most startups now require less initial investment. On the downside, these smaller investments remove some of the control venture capitalists previously had on businesses they invested in. On the plus side, the micro investment model allows venture capitalists to invest in more companies at lower risk. Rhodes-Kropf stressed that mitigating risk is especially important as today's less experienced entrepreneurs have a higher likelihood of failure.

Wrapping up the panel was Prof. Lindsey, who outlined her recent research on the impact of accreditation rules on angel investing, entrepreneurship and employment. Lindsey's research showed that regulations such as the Dodd-Frank Wall Street Reform and Consumer Protection Act, which sharply decreased the number of angel investors receiving accreditation, adversely affect new business creation. In the case of Dodd-Frank, new business creation was reduced by about two percent, as potential investors no longer met the net worth standard due to the exclusion of primary residence value as one of the accreditation criteria.

Lindsey's research also found that the shock to informal capital markets created by Dodd-Frank adversely affected employment at smaller businesses. In states that lost a greater percentage of potential angel investors, employment in firms with ten employees or fewer fell more by the end of the firms' entering year than in states that lost fewer angel investors.





“Disruptive innovations are those that fundamentally transform some particular market. Think about the automobile wiping out the horse and buggy model. A breakthrough technology is a new technology that enables a whole host of other technologies...The question is, how do those types of innovations come about? How do you recognize them, how do you support them, how do you encourage them?”

**Eric Toone**

*Professor of Chemistry, Duke University and Managing Director and Science Lead for Breakthrough Energy Ventures*

Lindsey’s research demonstrated that another impact of fewer angel investors was on employment. With fewer new businesses competing for workers, labor demand shifts downward, as do wages, particularly for higher skilled workers.

## DISRUPTIVE INNOVATION & TECHNOLOGY SPILLOVERS

*Chair: Eric Toone, Professor of Chemistry, Duke University and Managing Director and Science Lead for Breakthrough Energy Ventures*

*Panelists: Josh Browne, Founder, Rho AI and venture partner at Moxley Holdings; Craig Buerstatte, Acting Director, Office of Innovation & Entrepreneurship, Economic Development Agency, U.S. Department of Commerce; Frank Lichtenberg, Courtney C. Brown Professor of Business, Columbia University Graduate School of Business; Xinxin Wang, Assistant Professor of Finance, University of North Carolina at Chapel Hill’s Kenan-Flagler Business School*

The panel took a broad look at the disruptive innovations influencing entrepreneurial decisions today, how the innovation process takes shape in certain industries and how public policy can encourage innovation. A main focus was technological innovation in the healthcare and energy industries, as well as financing and funding decisions related to technology development milestones.

The panel noted that the effects of innovation are easier to measure in some industries than others, in part due to the substantial regulatory role the U.S. government plays in those industries. For example, innovation in the pharmaceutical industry, particularly in the development of cancer drugs, can clearly be seen as the basis of longevity growth throughout the world. Likewise, technological innovations by members of the military can

clearly be traced to the necessities of combat in places like Iraq and the relative freedom of service members to improvise protective solutions.

The panel also examined how, beyond its regulatory role, the federal government can adopt policy interventions and models that spur technological breakthroughs, and the interplay that exists between university research, private sector investment and government support. Finally, artificial intelligence, machine learning and advanced data science tools and techniques were presented as some of the most compelling areas for technological innovation shaping the U.S. economy today.

## BREAKING THE BIAS CYCLE FOR WOMEN AND MINORITY ENTREPRENEURS

*Chair: Michelle Rogan, Associate Professor of Strategy and Entrepreneurship, University of North Carolina at Chapel Hill's Kenan-Flagler Business School*

*Panelists: Bernard Bell, Managing Director of Urban Media Solutions (UMS) and Executive Director of the Shuford Program in Entrepreneurship, University of North Carolina-Chapel Hill; Michael Ewens, Associate Professor of Finance and Entrepreneurship, California Institute of Technology; Sabrina T. Howell, Assistant Professor of Finance, New York University Stern School of Business; Philip Gaskin, Chief of Staff, Entrepreneurship and Director of Entrepreneurial Communities, Ewing Marion Kauffman Foundation*

Michael Ewens started the discussion at the level of initial financing, noting that the majority of venture capitalists are white males, and as “gatekeepers” of funding for startups, might be - intentionally or unintentionally - limiting women’s and minorities’ access to capital.

Only 10 to 15 percent of startups are founded by women. Ewens analyzed data from nearly 18,000 startups with profiles on AngelList, a website that connects startups with investors, to try to determine whether the low startup rate was a result of fewer women in the startup pool overall, or a bias on the part of investors against women entrepreneurs. The data showed that investors were less interested in women-owned startups, and as a result, women-founded startups struggled to find funding. Male-led companies were almost twice as likely to receive funding from male investors than were female-led companies. On the other hand, female investors only slightly preferred female-led companies.

Prof. Howell continued the discussion with a focus on how networking might present a barrier to women and minorities seeking access to venture capital. Personal connections matter, particularly with respect to local venture capitalists. Because women and minorities may have few existing connections with the majority of white male investors, said Howell, they are operating at a disadvantage when it comes to networking.

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“Our mission’s success will not be measured by the number of papers published. Our success will be measured by something as simple as lowering the barriers so that anyone who wants to take a risk, who wants to take that jump, can do so with as few hurdles as possible. This is the best time in our history to be an entrepreneur.”

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Wendy Guillies

*President and CEO, Ewing Marion Kauffman Foundation*

Men comprise about 90 percent of senior venture capitalists and 94 percent of board representatives at venture capital firms, while women comprise roughly 10 percent of venture capital-backed startup founders, suggesting that a gender gap exists even at the very beginning of a startup's lifecycle. One solution is for women entrepreneurs to enter competitions such as Harvard Business School's New Venture Competition, which provide access to venture capital with less bias. For example, a study of the HBS New Venture Competition showed that, of 1100 participants, 32 percent of competitors and 29 percent of leaders were women.

Prof. Bell approached the issue from the viewpoint of a minority entrepreneur. Citing Kauffman Foundation research studies, Bell compared average sales of white-, Asian-, Hispanic-, and black-owned businesses. White-owned businesses have average annual revenue of \$2.38 million, while Asian-owned businesses have average annual revenue of \$1.9 million, Hispanic-owned businesses average \$1.2 million, and black-owned businesses \$900,000. In addition, Hispanic- and black-owned businesses have higher failure rates than white- and Asian-owned businesses.

Although less than one percent of venture-backed companies are black-owned, Bell sees this statistic as an opportunity. Drawing from his personal experiences, Bell described his first encounter with a black business owner – his grandfather, who was a farmer. Bell said that his grandfather would never have considered himself an entrepreneur because within the black community, business ownership had often been viewed as a necessity as black people were once not welcome in white-owned businesses. In addition, the work was often difficult and the hours long, which skewed many community members' view of business ownership. As a result, entrepreneurship has not been particularly valued in the black community. For change to occur, both potential black entrepreneurs and white investors need to get out of their comfort zone and look for ways to close the gap.

Mr. Gaskins wrapped up the session by focusing on two key areas: investor diversity and decision-maker bias. He said venture capitalists, board members and other individuals involved in driving economic growth need to understand the culture of under-represented groups and create opportunities that resonate with those groups. Power players must consider the makeup and preferences of those who will be purchasing products, starting businesses, and employing workers. In addition, training must also be considered as a means of leveling the playing field for under-represented groups.

## CLOSING SESSION

Keynote: Kathleen Eisenhardt, *Stanford W. Ascherman M.D. Professor and co-director, Stanford Technology Ventures Program, Stanford University*; David Hsu, *Richard A. Sapp Professor, Wharton School, University of Pennsylvania*

Dr. Eisenhardt's presentation focused on what makes a superior strategy in an entrepreneurial setting. Using Airbnb as an example, she made a distinction between recognizing opportunity and developing a business strategy. Eisenhardt said that the company's founders saw an opportunity for a web-based lodging services system in 2007, but took almost three years to figure out their strategy. The point is that, without a business strategy, a good idea is just that – an idea. "Seeing a great opportunity is one thing," she said, "but you're a long way away from actually having a strategy that is going to work."

"Seeing a great opportunity is one thing, but you're a long way away from actually having a strategy that is going to work."

Strategy is defined as the set of interdependent activities that create and capture value for a company. In an entrepreneurial setting, there exists a dilemma. The very definition of entrepreneurship involves developing a novel strategy in an uncertain setting in which learning by doing is the norm. At the same time, to be successful, entrepreneurs need to develop a coherent set of activities that will actually make money and grow their business. In other words, a clash exists between strategy development by doing and strategy development by thinking.

Eisenhardt next looked at findings from nearly 20 studies she completed that looked at why, given similar opportunities and skill sets, some entrepreneurial ventures succeed and others fail.

The first finding is that, because the entrepreneurial environment is fluid, entrepreneurs who are big-picture thinkers and can see how the various pieces of the ecosystem fit together are better than others at developing successful strategies.

Eisenhardt studied a group of social investing companies. Described as "Facebook meets personal investing," social investors use the varied expertise of their network of personal connections to inform their investment decisions. Eisenhardt found that the most successful social investment firms looked at the big picture of what their rivals were doing to differentiate their own products and services. They saw their rivals not as competitors, but as a source of ideas.

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"Seeing a great opportunity is one thing, but you're a long way away from actually having a strategy that is going to work."

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Kathleen Eisenhardt  
*Stanford W. Ascherman M.D.  
Professor and co-director, Stanford  
Technology Ventures Program,  
Stanford University;*



Another characteristic of successful entrepreneurs is that they believe they can shape and change the playing field. In one study of “internet stars” – companies who have found their success through their online presence – Eisenhardt found that early in their formation, the most successful ones sought ways to change their position in the ecosystem. Some formed partnerships or undertook complementary ventures with their competitors. Others kept potential rivals from invading their territory by offering them investment or revenue sharing opportunities. Others acquired competitors outright.

A third characteristic of successful entrepreneurs is that they understand not just the rules of business, but the rules of their specific field. For example, two-sided markets, software development, and solar energy sales have vastly different rules for success. Recognizing and understanding these specialized rules early on gives entrepreneurs a competitive edge.

Finally, Eisenhardt emphasized the importance of understanding and anticipating potential bottlenecks. Entrepreneurs who see and solve these bottlenecks faster are more successful. In addition, those who take the time to study bottlenecks and develop a playbook of simple operational rules around them are more successful in moving past them to success.

Dr. Hsu began his presentation by outlining two traditional approaches entrepreneurs have used as entry strategies. The first is superior speed – being first with experimentation, prototyping, and market entry. The second is superior strategy – outmaneuvering the competition. Entrepreneurs also typically focus on two other areas – their founding team, and their internal processes.

Hsu suggests that the road to entrepreneurial success involves not one or two of these priorities, but rather a combination of all four, centered around the company’s purpose. Moreover, throughout the venture lifecycle, there are shifts in which priority takes center stage. While entrepreneurship management studies have tended to focus on the startup phase of ventures, studying the scale-up phase is critical to developing evidence-based entrepreneurship best practices.

Hsu’s research looked at entry strategies for startup ventures by looking at how innovation is introduced. In the technology field, for example, advances typically come from startups, while in the pharmaceutical industry, established players frequently lead in innovation.

The difference in where innovation comes from – entrants or incumbents – depends, in part, on what type of strategy entrepreneurs adopt and why. When entrepreneurs adopt a value chain approach, working with incumbents to gain their own market share, innovation feeds into the incumbent organizations. When entrepreneurs adopt a disruptive or blue ocean strategy, innovation comes from the entrepreneur and the market leadership of incumbents is overturned.

Each strategy has its benefits and challenges for entrepreneurs. For example, partnering with an incumbent can provide such benefits as an established supply chain, a built-in trade partner and existing distribution and marketing infrastructures. On the other hand, potential frictions of such a partnership include transaction costs, establishing credibility with the incumbent partner and the risk of disclosed information being expropriated by the partner. Entrepreneurs must consider both the upside and downside factors when determining whether to adopt a value chain or disruptive approach to starting their business.

Another option for entrepreneurs is a “switchback” approach – a combined strategy in which startups go it alone and disrupt the paradigm when they’re able, and partner with incumbents when they must to get around roadblocks or acquire the knowledge they need to move forward.

Finally, Hsu touched on the scale-up stage of entrepreneurial ventures, noting that not enough study has been done in this area. Each startup strategy – value chain, disruption, and blue ocean – has its own set of competitive dynamics, challenges, opportunities and scaling decisions, and these factors that come into play early in the venture lifecycle greatly impact strategy during the scale-up stage as well.

Overall, there is much work to be done. These conversations must not only continue, but steps toward implementing suggestions for change is the only way to move forward.

## KENAN INSTITUTE FRONTIERS OF ENTREPRENEURSHIP RESEARCH INITIATIVE

### SMALL GRANTS PROGRAM: CALL FOR RESEARCH PROPOSALS

The Frank H. Kenan Institute of Private Enterprise is seeking proposals for outstanding academic research projects in the field of entrepreneurship.

#### FINANCIAL SUPPORT

The Kenan Institute will award approximately five grants of \$10,000 each. The grant term will be from June 1, 2018 through December 31, 2021. To be eligible, applicants must be full-time faculty, Ph.D. candidates or postdocs at an academic research institution. The Kenan Institute will not pay overhead expenses.

The Kenan Institute pays 40 percent of the grant when approved. An additional 40 percent will be paid when a working paper is uploaded to SSRN (with a deadline of December 31, 2019). The remaining 20 percent will be paid upon acceptance for publication in a peer-reviewed academic journal (with a deadline of December 31, 2021). All publications

(including working papers) that are directly related to the grant funding must acknowledge the support of the Kenan Institute in an introductory footnote.

## PRIORITY AREAS

The Kenan Institute has chosen its priority areas based on questions and themes developed during the 2018 Kenan Institute Frontiers of Entrepreneurship Conference. Our priority areas include, but are not limited to, the following:

- Measures of entrepreneurial vibrancy and impact on organizational viability and productivity.
- Determinants of declining rates of IPOs.
- Change in the quality of startups. Are we missing high-growth entry or lifestyle entrepreneurs, etc.?
- The geographic distribution and determinants of new firm formation and survival rates.
- The role of solopreneurs and independent contractors in measurement of entrepreneurial activity.
- The importance of regulatory burden on incentives to firm formation across sectors.
- The role of student debt on rates of new firm formation.
- Increasing minority participation in entrepreneurship is due primarily to lower relative participation of white males. Is this due to basic demographics or other social factors?
- Causal effects of institutional, regulatory and fiscal institutions and reforms on entrepreneurial activity. How do these relate to differences in entrepreneurial activity in difference geographies (e.g., India/China vs. Brazil/Russia)? Relation between macro factors and exit strategies. Differences in determinants of survival rate (and other success measures) in challenging environments.
- What are effective mechanisms for investors/lenders protecting themselves at the firm level in challenging business environments? What is the impact of corporate governance—concentrated family holdings, state and foreign ownership in the private and financial sector—on entrepreneurial finance and success?
- What is the added value of management training, incubators, social networks, etc., especially for women and minorities?
- The role of entrepreneurship in economic growth and development. What is the impact of NGOs/non-profits on private sector development/entrepreneurship? How do entrepreneurs benefit from connecting to global value chains (e.g. transfer of technology, access to financial markets, and improved managerial skills)?
- What is the impact of access to digital financial services on financial resilience and growth?
- If wages are unimportant in matching workers to new and established firms, then what drives workers to join new firms?

- How important is inherent skill in being a successful entrepreneur and how should we measure skill?
- What else can we learn about “entrepreneurial” employees who work in established firms? How important is the organizational setting versus the person and his/her activities? How important are they for the success of established firms?
- What are the most important distinctions between founders of new firms and employees at new firms? What do we learn by studying employees at new firms more broadly?
- There are (at least) two differing definitions of entrepreneurship: one that characterizes an entrepreneur as any owner/operator of a business and another that applies the term only to innovative and high growth potential businesses. How do different definitions impact our analysis of entrepreneurial activity?
- Assessment of the effectiveness of specific frameworks meant for improving outcomes for entrepreneurs who learn them (lean, disciplined e-ship, MIT entrepreneurship strategy, etc.). How can tools and frameworks be combined?
- The effectiveness of in-class experiential training, versus online curricula, versus one-one-one mentorship.
- Does the entrepreneurship framework and toolset education matter more or less than access to networks of individuals with that know-how? Are they substitutes or complements?
- How should teaching entrepreneurship differ in business school programs versus colleges of arts and science versus engineering?
- What program components are most impactful and cost effective for promoting high quality entrepreneurship? In particular, what are the different effects of classroom time, one-on-one or small group formal mentorship and networking events and peer effects? Moreover, what aspects of training are most important (e.g., knowledge of where to access resources, exposure to success and failure stories, understanding how to apply hypothesis testing to a startup, etc.)?
- Why have venture capital firms been investing less and in fewer early stage companies even as overall investments by venture capital firms appear to be reaching levels not seen since the late 1990s?
- What regulatory changes would increase the supply of entrepreneurial finance?
- What types of innovations are best facilitated by different environments and how might these be connected?
- How effective are interventions for the entrepreneurial entry and success of women and/or minorities? What are preferred methods for testing (e.g., experimental versus archival data)? What cognitive, social and political barriers to the implementation of these interventions should we anticipate?
- Experimental work on ways to mitigate bias from external stakeholders (investors, suppliers, etc.) that adversely affect the success of women and minority entrepreneurs.



- In parallel research streams, scholars have defined and studied entrepreneurial ecosystems using either geographic or technology boundaries. What do we learn by linking these two streams?
- Although the current literature has extensively studied existing ecosystems, the emergence of new ecosystems deserves additional attention. How can we access and generate new data that expand our understanding of ecosystems including the role and interactions of various actors (entrepreneurs, public institutions, cultures, etc.)?

### **ADDITIONAL BENEFITS AND OBLIGATIONS**

Awardees must be willing to present their research at a future Kenan Institute Frontiers of Entrepreneurship Conference.

### **APPLICATION PROCEDURE**

Please submit a proposal by email to [kiproposal@kenan-flagler.unc.edu](mailto:kiproposal@kenan-flagler.unc.edu) with the subject line "Frontiers of Entrepreneurship Research Proposal." The submission should consist of a single PDF with the following:

- A cover page with project title; date of submission; and information for Principal Investigator, including name, email address, phone number, mailing address, university or research institution affiliation and title
- A proposal narrative
- Updated resume or CV for each researcher
- If the Principal Investigator is a Ph.D. student, please include a letter of reference from a dissertation or program faculty advisor.

The proposal narrative should not exceed five (5) pages, should be single-spaced and include:

- A one-paragraph abstract written in the third person for posting on the Kenan Institute website, if the project is funded
- A short literature review on the topic
- A comprehensive description of proposed activities, including details about the hypothesis, research design and what data, if any, will be used
- Description of the timeline for the project

### **APPLICATION DEADLINE & DECISION**

The deadline for consideration is 5:00 ET, April 30, 2018. Grantees will be notified by 5:00 ET May 31, 2018.







The Frank Hawkins Kenan Institute of Private Enterprise is a nonpartisan business policy think tank affiliated with the University of North Carolina Kenan-Flagler Business School. Founded in 1985, the nonprofit institute facilitates collaboration between the private, public and nonprofit sectors to build a greater understanding of how entrepreneurship, economic development and global commerce can work for the public good. It leverages best-in-class research to develop market-based solutions to today's most complex economic challenges; in doing so, the Kenan Institute aims to better the lives of people in North Carolina, across the country and around the world. For more information, please visit [kenaninstitute.unc.edu](http://kenaninstitute.unc.edu).



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