

I am fascinated by how collectives of economic agents – whether individuals adhering to a collaborative venture or systems of agents coordinating activities – can drive innovation, economic vitality, and societal well-being. I have centered my work at the nexus of organizational economics, strategic management, and entrepreneurship so I might further understand the mechanisms of collective formation, the impact collectives have on society, and how society – through public policy and regulation – impacts them. My doctoral research program develops a method for systematically classifying organizations, operationalizes the conceptual framework through multivariate statistical methods, and applies these developments to address a public policy challenge of local and regional food systems. In other work, I look at how minority groups use collective entrepreneurial strategies to mitigate social disadvantage and how the identification of a member with the collective influences their commitment to the organization.

**The development of the Organizational Species Concept (OSC) as a basic taxonomic unit on which to systematically classify organizations** has been the principle focus of my recent work, and the topic of my dissertation. Creating such a classification scheme helps us better understand the roles certain organizational forms play within value chains and predict how changes in economic environments might impact organizational populations and thus the systems in which they act. Importantly, the framework I develop moves us away from the problematic, pervasive use of monothetic (single attribute-focused) *typologies* by providing an approach based on polythetic (multidimensional) *taxonomies*. The OSC's development is also a first step toward improving the literature on the evolution of organizational forms. In crafting the conceptual framework and its operationalization, I have looked well beyond the borders of applied economics to management, philosophy of science, anthropology, ecology, and biology. To this end, I have been active in the inter-disciplinary Evolution and Social Sciences working group on the Mizzou campus. I have also shared my work on the OSC with diverse audiences at conferences such as the Flyover-State Scientists Integrating Evolution (FOSSIL), the International Network for Economic Method (INEM), the International Cooperative Alliance's (ICA) European Research Conference, and the Food Distribution Research Society (FDRS). Given the unique character of this research program, contributing to workshops and colloquia has been vital to the development of the approach while I await release of statistical results by USDA/NASS. I am now initiating the publication stream.

I apply the OSC to two organizational forms – food hub organizations (FHOs) and primary agricultural producers (PAPs) – which are organizational populations central to regional food systems faced with pressing public policy questions. Specifically, the systems in which these two populations interact with one another have been presented with the challenge of scaling-up, in the hope larger scale will provide more opportunity for sustainable development of rural communities and expand access to nutritious and socially-responsible food products. Overall, the work identified that different species within the two populations exist and that they have differentiable outcomes in key areas pertinent to the goals prescribed in both formal and informal public policies on local and regional food systems, including scaleability, market access, and firm performance. Additionally, surprise findings from this empirical work have enabled off-shoot projects, including presentation of work at the ICA's Berlin conference investigating differences between cooperative food hubs and other statutory organizational forms. The findings presented in Berlin have direct implications for the economics of food systems, as they support the understanding that collective entrepreneurial ventures can arise as a response to thin markets. In addition, my work to date sets up future contributions through application to other sectors, incorporating panel data, and doing primary data collection with innovators in local and regional food systems.

**Entrepreneurial strategies employed by minority populations, especially their use of collectives** as a means of coping with social disadvantage, is another realm I have engaged in during my doctoral program. This work contributes to understanding collectives from the vantage point of

individual members (opposed to populations of organizations), whether those individuals be natural or legal persons. I am particularly interested in LGBT-identifying entrepreneurs in industries where bias against such populations tends to be prevalent, including the agri-food and science, technology, and engineering sectors. Work with this population to date has centered on developing the networks and background necessary for implementing a successful research program while I search for funding adequate to launch a full project. I have written three grant proposals for an integrated (extension plus research) project in the agrifood sector targeting LGBT populations along with veterans and immigrants. Two were held on campus as the funding source (USDA Office of Advocacy and Outreach) permitted limited submissions and the University preferred advancing an application for continuation of funding to an existing program. The third, to the National Institute of Food and Agriculture at USDA, was recommended for funding by the reviewers but was unable to receive funding because of program oversubscription. It will be re-submitted in the Spring 2020 funding cycle with the added benefit of incorporating the review committee's comments.

I have already been completing work on underrepresented minorities and their strategic orientations. This includes an offshoot of my empirical analysis of small farms engaged in local food systems: using USDA data I am examining differences found among firms with female and racial minority primary operators. Preliminary results indicate that these minority-headed small enterprises exhibit patterns consistent with social disadvantage, with differences in terms of firm capitalization and strategic profiles compared to those with socially privileged primary operators. This has resounding implications for the justice and equity of regional food system planning and policy. More work with this data will follow my dissertation defense.

**Understanding the organizational adherent's commitment to the collective via their identification with it** is another topic which holds promise for applications in understanding entrepreneurial teams, the ability of organizations to retain innovators, and the strategic decisions of collectives. I completed methodological improvements to foundational work by Foreman and Whetten, modelling member commitment based on the degree to which the individual perceives a congruence between the identity *they expect* the collective to enact and their perceptions of the identity *as expressed*. This work was presented at the Agricultural and Applied Economics Association (AAEA) annual meetings in Chicago and the ICA conference in Wageningen, The Netherlands, in 2017. There I noted a desire to extend the identification-commitment model to include behavioral outcomes (e.g. Exit, Voice, and Loyalty in Hirschman's classic.). Since the methodological work I presented – as well as additional applications by Foreman, Westgren, and others – have continually validated the base model, such extensions can lead us to understand when adherents might take actions with consequences for organizational performance, structural change, and market exit, among others. Importantly, some of these developments have indicated that the model hold not only for individuals within organizations, but for small firms engaged in collectives. Extensions of the identification-commitment model through incorporation of behavioral outcomes and application to different forms of collectives (especially entrepreneurial teams) are next steps. Success in this realm can benefit from my ties with researchers already in the field, including Foreman who sits on my doctoral committee, and Westgren, my doctoral advisor.

**Methodological approaches across this body of work are also worthy of note**, as they employ a diverse set of tools and have allowed for additional inter-disciplinary work. Both the Organizational Species and Identification-Commitment projects have given my research portfolio a strong basis in multivariate statistical methods. These have been integrated with statistical tools such as regression and means testing, as well as with qualitative methods for triangulation. My qualitative research background was formed studying in Pisa and Rennes during my masters with leaders in the field as applied to rural development policy analysis, while my quantitative toolkit comes from a long history of inter-disciplinary work. This history includes undergraduate programs in applied statistics

for both economics and political science, welfare analysis in my masters program, and advanced training as a doctoral student from fields including economics (econometric theory), educational psychology (structural equation modelling and latent factor analysis), and quantitative psychology (cluster analysis). I wish to add social network analysis to my methodological toolkit for the contribution it can make to empirical analyses of collective action in the sector.

**Continuing work in these three streams as well as other avenues for understanding entrepreneurial activity and collective formation will shape the future of this portfolio.** This includes work on "enabling environments" for innovation and entrepreneurship and how extrinsic factors impact innovation and firm founding. One example: at the 2019 FDRS meetings in Seattle, Jablonski (Colorado State University) presented her recent work developing indexed measures of community capital stocks (at the county level) in the U.S. I posed to her that with the index in place, application to data on new firm foundings (a proxy for entrepreneurial activity) would hold substantial value in public policy developments to address geographic inequalities. I contend that identifying community capital portfolios associated with entrepreneurial growth on sectoral lines can be used to craft directed development plans. This can be integrated into gravitational models with social network analysis to understand how entrepreneurial networks and the loose collectives within them are central to so-called "innovation clusters". Tying together enabling environments and collectives, I am interested in integrated research-extension work on entrepreneurial catalyzers (often called "incubators" or "accelerators") within food systems. Understanding the roles these organizations play in the formation of entrepreneurial networks, as well as the most critical resources for them to provide client entrepreneurs, will improve public policy investments through targeting.

**My interests and background allow me to navigate the intersection of "social entrepreneurship" and *the social contexts of entrepreneurship*.** The former deals with understanding those entrepreneurial acts which seek to economize or valorize solutions to problems faced by society. My research asks questions about how these acts are manifested through collective structures through the evolution of new organizational forms. These are questions about how agents formulate innovation and capture its value to create sustainable enterprises. My research also deals with questions about how social forces impact the formation and success of entrepreneurial ventures (of all stripes). This work is about entrepreneurial environments in general, and how different collective structures may be selected for in different contexts and with differing outcomes. Importantly, work to date has shown that building knowledge of foundational principles need not eschew simultaneously addressing critical questions of policy makers and practitioners. In fact, my academic background as an applied social scientist – with deep training in economics, as well as education in sociology and political science – centers the ability to do both at the same time. This theme will continue throughout my research work as I advance my career, building on theory in organizational evolution, minority entrepreneurship strategies, and psycho-social models of behavior within collectives, while also serving the immediate needs of economic systems, decision makers, marginalized communities, and innovators alike.