



## **Ignite Grant Program**

### **Social Science and Humanities Applied Research Proposal Examples**

#### **Example 1**

This project, funded in 2020-21, aims to utilize a collaboration with the Wisconsin Paper Council (WPC) to develop a ten-year strategic framework for Wisconsin's pulp, paper and converting industry. The resulting strategic framework will provide the WPC with best practices, policy, and program recommendations for coordinating industry change. It will also inform these discussions by mapping out expected industry disruptions in the coming decade and providing other competitive intelligence. The project will make extensive use of the collaborative resources of the University and WPC by engaging students in all aspects of the work, ranging from survey administration to industry analysis and workshop facilitation. This will provide students engaged in the project with exposure to the industry and its career opportunities. It will also encourage greater collaboration among industry partners across the value chain to develop innovative solutions and build partnerships.

#### **Example 2**

This project, funded in 2020-21, aims to adapt Milwaukee's existing social and physical infrastructure to encourage economic and social growth through the implementation of a mobile furniture system to retrofit existing vacant storefronts. This intervention will provide the necessary resources and structures that entrepreneurs in underserved communities lack. The uniqueness of this project is the flexibility of a mobile retrofit-system of furniture that can be moved from one location to another. The mobile furniture will respond to various programming needs of small business startups such as farmer's markets attached to local urban gardens, maker spaces for local artists, and cowork and community programming. Faculty and students from the Department of Architecture will work with local communities to design and fabricate a series of mobile, interchangeable and durable furniture for these empty storefronts. Researchers will engage the users and community stakeholders through surveys to collect data and feedback on the system to track economic performance and determine the effectiveness of this system. The results of this work and the plans of the furniture will be collected and distributed through an on line database, which will spur further deployment of the system beyond its original iteration.

#### **Example 3**

This project, funded in 2019-20, aims to improve retention rates and reduce achievement gaps in higher education through instructor professional development methods that improve retention in industry and student outcomes in K-12 educational settings, especially for students from first-generation, low income, and underrepresented groups. Student outcomes will be measured via registration data. Student researchers will be involved in data analysis and in dissemination, which advances high-impact practices, student employment, and workforce preparation. Intercultural agility will be measured by Intercultural Development Inventory (IDI) scores with the AACU's Intercultural Knowledge Rubric. The project supports economic development with cost-effective practices that can increase retention, improve student's economic outlook, drive down recruiting costs, and enhance Wisconsin's workforce with addition, more diverse, college-educated personnel.

#### **Example 4**

This project, funded in 2018-19, aims to investigate best practices to support women's entry and success in the building construction trades. The inquiry will investigate the following three issues: optimal procedures for recruitment of women for the building construction trades, how best to rapidly train and orient women to acquire jobs and find success in the construction industry (looking at job acquisition timelines and retention); examining what contributes to women's job acquisition and retention. The applied research project proposes creating a 4-week (end) (44 hour) pilot pre-apprenticeship program supporting women's entry into the building construction trades. The curriculum will provide a general orientation to different career opportunities, connections to local building trade union representatives, tradeswomen, and contractors as well as hands-on building activities including experience with at least 3-4 different trades.

#### **Example 5**

This project, funded in 2018-19, aims to examine social isolation, loneliness, and work-family conflict experienced by long-haul truckers and their effects on driver health and well-being and turnover. This research proposes to identify both individual- and organizational-level variables that buffer the effects of these stressors, with a view to developing a set of recommendations and a concomitant implementation plan for the industry.

#### **Example 6**

This project, funded in 2017-18, aimed to conduct a comparative study of refugee resettlement in local communities and economies. Focusing on the Fox Valley region, the applicants sought to assess how residents of refugee background (RRBs) came to settle in the region, how they have fared following resettlement, what factors help to predict their success, what services are most important to enable such success and what gaps exist. In addition, the project aimed to determine what innovations can empower RRBs and help them to not only thrive but also become assets to the local workforce and community. While the initial study focused on the Oshkosh area, the team intends to expand and scale the study to both Milwaukee and Madison in the years to come.

#### **Example 7**

The goal of this project, funded in 2017-18, aimed to design and build season-ahead climate forecast tools for Wisconsin's Central Sands and evaluate their potential economic impact. Forecasts, if skillful, could help to guide decisions across agencies and landowners, related to allowable groundwater extraction, timing, and conjunctive use planning. Forecasts may be informative for 'early warnings', farmer planning (e.g. expected irrigation needs, pumping costs, crop variety options, etc.) and recreational and touristic planning through identification of likelihood and severity of impacted sites, or by triggering voluntary conservation measures. The team anticipates that these forecasts and user tools will benefit farmers and recreationalists by fostering proactive decision-making and reducing economic losses.

#### **Example 8**

This project, funded in 2016-17, aimed to create an online platform to allow students to do real science using multi-dimensional arrays of interactive videos. The platform is envisioned to serve as a new educational resource for students studying science, in particular physics and is intended to provide teachers with a better way to engage students in authentic science investigations. The videos will improve the efficiency of science education by allowing students to directly analyze real life events depicted in the video using built-in tools. In addition, it is thought that such a tool will help to better prepare students for the open-ended, non-linear problem-solving environment they will likely face as they move forward in their career.

### **Example 9**

This project, funded in 2015-16, facilitated collaboration with local First Nation communities/tribes and small growers to establish and expand experimental plots and food stations as well as satellite outlets at food markets, restaurants, and cafes. Its goal was to preserve the food and medicinal use of native plants in the region and the traditional Ojibwe knowledge for their cultivation and use. A key objective was to host a series of workshops affiliated with each experimental site that indicates to participants the properties of the natural food plants and their suitability for cultivation in individual garden plots and for small organic farmers interested in expanding their product line and markets. This multi-year project has a wide range of stakeholders from tribal organizations to indigenous schools, food farms, alternative food markets, and restaurants.

The multi-phase project illustrated the vast impact of previously uncultivated plants on the state of Wisconsin; these plants have an important place in the sustainable food markets and commercial restaurant industries. Economic benefits to the state of Wisconsin in growing native plants not previously cultivated include future commercialization of new products for nutrition, medicinal purposes, and fresh food markets.

### **Example 10**

This project aimed to propagate four novel hazelnut genotypes for evaluation in field-scale trials. It was anticipated that such trials would provide for improved hazelnut genotypes available to Upper Midwest growers, allowing for the first perennial oilseed and grain crops to be grown there. The proposal, funded in 2015-16, planned to test expected yields and performance of four specific hazelnut genotypes prior to commercial release of the seeds, so that agronomic and management recommendations could be made to growers.

Improved hazelnut genetics will provide for rapid expansion of the hazelnut industry in Wisconsin and allow growers and processors to expand their operations, sparking an important impact on the state and its economy.

### **Example 11**

This proposal aimed to create a dosimeter attachment with the ability to collect sound level measurements in the ear canal of public safety workers while on duty. The proposed dosimeter attachment combines the best features of both the commercially available personal noise dosimeter and the real ear measurement systems. The dosimeter attachment measures levels of occupational noise in the ear canal when an ear piece is present and evaluates signal to noise ratios during work tasks of public service employees. The proposal involved the creation of the attachment, laboratory testing, and field testing of the platform technology to show proof of concept for the next stages of development.

The proposed technology had the potential to improve occupational noise monitoring technology in every sector of the Wisconsin workforce: health, public safety, construction, food service, retail, and manufacturing. This project, funded in 2015-16, could provide a means to evaluate appropriate signal to noise ratios for effective on the job communication to improve efficiency and safety of Wisconsin employees, potentially decreasing Wisconsin healthcare costs and disability claims resulting from noise induced hearing loss or injury on the job.