

## **Final Progress Report**

Occupational Health Psychology Training  
OH008610  
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## List of Abbreviations

CPH-NEW	Center for Promotion of Health in the New England Workplace
I/O	Industrial/Organizational
NIOSH	National Institute of Occupational Safety and Health
OHP	Occupational Health Psychology
OSH	occupational safety and health

## **Abstract**

### **A. Long-term Goals and Objectives of the Program**

The Occupational Health Psychology (OHP) graduate training program at the University of Connecticut is designed to train highly qualified and diverse graduate students from areas of psychology, public health and nursing to become Ph.D. researchers capable of conducting multi-disciplinary and trans-disciplinary research focusing on the behavioral aspects of occupational health. OHP is concerned with the broad range of exposures and mechanisms that affect the quality of working life and the responses of workers, such as how individual psychological attributes interact with job content and work organization as well as organizational policies and practices. OHP research and practice explores interventions targeting the work environment as well as the individual to create healthier workplaces and organizations, and to improve the capacity of workers to protect their safety and health and also to maximize their overall effectiveness and sense of wellbeing. As such, OHP fits many of the strategic goals of the NIOSH Total Worker Health initiative.

### **B. Key Elements of the Training Program**

Trainees learn how to contribute to the OHP knowledge base and become highly capable at discovering or implementing new ways of maintaining and promoting worker health and safety. The OHP concentration is integrated within the Industrial/Organizational (I/O) Psychology doctoral training program. Trainees must complete, in addition to their regular I/O coursework, 12 credits of prescribed coursework, three credits of applied field or lab research under the supervision of OHP faculty, master- and dissertation-level research, and participate in faculty research labs. With respect to the specific OHP coursework, all trainees complete a graduate seminar that covers principles of behavioral science, ergonomics and epidemiology and which requires development of a multidisciplinary research proposal. Trainees complete an additional required epidemiology course and two elective graduate courses in psychology and/or public health that meet a required breadth requirement covering personnel/organizational psychology, human factors/ergonomics or public health. This combination of course content and applied research training is designed not only to equip trainees with the necessary skills to address today's occupational health problems, but also to enable them to introduce new concepts of work organization and workplace design for enhancing worker health and productivity beyond current expectations.

### **C. Trainees**

We recruit from the Psychology Department's I/O doctoral program in an effort to add extensive OHP training to trainees' more general doctoral requirements. The University of Connecticut's I/O program is the only one of its kind in the New England states, making it possible to recruit stellar students for this training. The training program takes approximately 5 years to complete, during which master- and dissertation-level research is completed, as well as additional research to enable trainees to be competitive in a tight job market. Trainees get jobs in academia, industry, consulting firms and governmental agencies.

We support approximately 10 trainees annually. Two are supported with full-time, year-long stipends and the remaining receive travel support to attend research conferences.

## Significant Results / Impact

### Overview

Activities of full-time, year-round trainees. Our budget allowed us to fully fund two trainees full-time and year-round. The continuity of this funding was extraordinarily valuable to our trainees throughout the funding period (Bizarro, Burch, Calvo, Gannon, Laguerre, Petery, Tubbs, Zhu). Students were able to concentrate their energies on degree completion, as well as coursework for their specialized Occupational Health Psychology training and broader PhD work, including milestones such as completing general exams and internships. Trainees also were actively engaged in additional research projects beyond their own master's thesis and dissertation research, presenting their research at OHP-related conferences. On occasion, academically-minded trainees also taught during their stipend-supported time, which is allowable given that it explicitly is connected to their career goals. When that occurs, their tuition/health costs were reduced to the grant as the university assistantship covers it, which we then were able to redirect to summer stipend support for additional OHP-focused trainees.

Completed theses. Fourteen trainees completed their MA theses during this reporting period. Eleven trainees completed their dissertations during this project period.

Internship placements. Trainees were required to complete a field-based research project, which oftentimes translates into an off-site internship. Several of the OHP trainees worked in OHP-related internships. Calabrese and Davies-Schriels worked full-time at VOLPE Transportation Center, where they studied a variety of transportation-related topics (fatigue monitoring, safety climate, work distractions); they both have subsequently accepted full-time positions. Bauerle worked full-time at the NIOSH Office of Mine Safety and Research. Additionally, Barr and Nelson worked full-time at organizations within which they worked on worker engagement and succession planning projects.

Job placement. Burch accepted a tenure-track Assistant Professor position at Western Kentucky University. One former trainer (Lee) recently accepted a tenure-track Assistant Professor position at Kansas State University during this project period. Nastasi accepted a Visiting Professor position at the University of Baltimore. Petery moved to Australia to join a research center devoted to the study of aging and work, as a post-doc. Barr, Nelson, and Zhu accepted consulting positions. For all, their OHP backgrounds were instrumental in securing these offers.

Other research activities. Trainees attended the semi-annual Sturbridge meeting of researchers from UMass-Lowell, UConn Storrs, and the UConn Health Center and from a wide range of disciplines conducting occupational safety and health research. Follow-up collaborations, networking and advice from these researchers were extremely good given our shared geographic region and shared research collaborations among approximately half of the researchers to date.

Trainees continued to participate in activities with the Center for Promotion of Health in the New England Workplace (CPH-NEW, [www.uml.edu/centers/CPH-NEW](http://www.uml.edu/centers/CPH-NEW)), one of three funded "centers of excellence" in the NIOSH Total Worker Health Initiative. The interdisciplinary CPH-NEW research team (psychologists, epidemiologists, ergonomists, economists, public health and health promotion professionals) studies worker engagement in the design and implementation of workplace health promotion/protection field-based initiatives. Many trainees received grant support from CPH-NEW (Barr, Berger, Calvo, Gannon, Gilmer, Gossett, Hanrahan, Parker, Tubbs). Other trainees had access to extensive CPH-NEW data sets for their independent research investigations on topics like the health effects of work-family conflict, incivility, and WMSDs.

The new federal Affordable Care Act contained numerous provisions to encourage prevention and improved management of chronic disease, including worksite initiatives. The Center for the Promotion of Health in the England Workplace (CPH-NEW) is partnering with Viridian Health Management (<http://www.viridianhealth.com>) and the U.S. Centers for Disease Control and Prevention to help implement the "National Healthy Worksite Program." This \$8 million effort features development of a best practices model for worksite health at up to 100 companies located in 7 program site locations across the nation. The project has three primary goals: Reduce the risk of chronic disease among employees and their families through evidence-based workplace health

interventions and promising practices, Promote sustainable and replicable workplace health activities, and Promote peer-to-peer healthy business mentoring. Henning and Barnes-Farrell joined this effort. Additionally, trainees Davies-Schrils and Graham were supported on the project.

Dr. Barnes-Farrell and her team were awarded a grant from the Federal Railroad Administration to assist in the development and evaluation of a new Short Line Railroad Safety Institute, working in partnership with the American Shortline Railroad Association, and researchers from the Federal Railroad Association and the Volpe National Transportation Research Center. As part of her work on this project, she provides guidance on the design and validation of assessment tools and procedures, and is responsible for development and evaluation of safety culture measures appropriate for use by short line railroads. This work is in direct response to requests from Congress to address worker and public safety issues in the railroad industry. Each of these projects supports our OHP trainees with research assistantships and provides trainees with experience in the design, implementation and evaluation of assessment tools, and analysis of worker and workplace health and safety information. Trainees have been actively involved (Grantham, Lacey, Pfeifer).

Prof. Barnes-Farrell continued working with the interdisciplinary team of the University of Connecticut Study on Aging and Musculoskeletal Disorders and Work (UConnSAM). For almost a decade, UConnSAM has been studying aging, work conditions and health in a cohort of manufacturing workers, with support from NIOSH. The project currently supports two of our OHP trainees with research assistantships (Gossett, Lacey) and provides trainees with experience in the design and field implementation of organizational surveys and physical testing protocols, data analysis of complex longitudinal data sets, and design of interventions appropriate for an aging manufacturing workforce.

Magley was PI on contract work from the University of Connecticut surveying faculty, staff and graduate student employees on workplace civility experiences and climate. Nelson has been the primary trainee associated with this work, although many others have assisted with smaller portions of the work. Nelson and Austin similarly assisted Magley with an NSF ADVANCE sub-award to UConn, working to develop a survey to assess sexual harassment climate for geoscience professional organizations.

Trainees Gannon, Grantham, Nelson and Pfeifer assisted Magley in the collection of nationwide, cross-organization data to assess the efficacy of sexual harassment awareness training.

Many trainees (Barr, Calvo, Grantham, Lacey, Pfeifer, Zhu) assisted in an organizational pre-assessment to a Coaching Culture intervention, supervised by Magley.

The I/O division hosted several OHP-related speakers in a biweekly seminar.

Minority participation. We have had four under-represented minority students actively involved in our training program (Calvo, Hanrahan, Laguerre, Tubbs) during this reporting period. This represents approximately 25% of our program size, which is a testament to our recruiting and retention efforts. We do not take this success lightly, though, recognizing fully that continued efforts toward inclusivity and equity are crucial. To that end, we stay alert to any perception of micro-aggressions among students, whether they're racially/ethnically charged or not. We have worked hard to create classroom environments that are open to input from all students.

OHP-related core courses in I/O program. As part of its Core Curriculum, all students in the doctoral training program in Industrial/Organizational Psychology now take the *OHP Proseminar*. It is offered every other year for all first and second year students in the I/O doctoral program. The focus on developing interdisciplinary mini-grant proposals has been retained and was most successfully implemented. Other course offerings are presented in the Course Offerings Appendix. We have enrollments in all of these courses from various departments around campus (Nursing, Management, Public Health, Engineering, Communication Sciences).

OHP promotion. OHP faculty continue to promote the Society for Occupational Health Psychology (SOHP; [www.sohp.psy.uconn.edu/index.html](http://www.sohp.psy.uconn.edu/index.html)). Magley is co-chairing the Awards Committee for the 2019 Work Stress & Health Conferences ([www.apa.org/pi/work/wsh.html](http://www.apa.org/pi/work/wsh.html)).

Program evaluation. As per our proposal, we maintained close contact with all former trainees and engage in routine dialogue with our current trainees about what they are needing within the program. Stipend-supported trainees met regularly with the PI to make certain that they fully understand both the expectations of the time that is afforded with the fellowship stipend and the resources that are available for them during this time. One challenge for students while on fellowship is to make certain that they regulate their time management carefully. Curiously, with fewer constraints on their time, some students find it actually more difficult to focus and make progress. Careful monitoring of all stipend-supported trainees' progress is done to make certain that is not a problem. Trainees all met regularly with advisors as they work on both thesis/dissertation and other OHP-related research. These meetings were crucial to trainees' success.

Strategic placement into internship experiences that emphasize OHP. In collaboration with the efforts of our Advisory Committee, we continued to work to develop better communication about existing internship opportunities for our OHP trainees. Additionally, we anticipate working with local large-scale organizations in efforts of introducing them to OHP and the possibilities of creating OHP-related internships.

Integrated connection with Advisory Committee. Also in collaboration with the efforts of our Advisory Committee, we continued to facilitate conversations between the board and both faculty and students. We hope this will help in guiding students on potential career paths, tweaking the curriculum and familiarizing the board members with the content of the coursework we are providing. Additionally, we continued to work on enhancing our connections with our past trainees to follow their OHP-related activities and provide insight into their perceptions of what seems most useful from the training program.

## **Connecting to Future Plans**

A new innovation of our 5-year renewal (7-1-20 to 6-30-25) is to engage trainees more actively in outreach efforts with managerial training around occupational safety and health (OSH). In our OHP-related research in applied settings, we are increasingly finding that intervention efforts are thwarted or embraced, largely based on senior/upper management view of the benefit of such efforts. In discussing this issue with our Advisory Committee, we learned of NIOSH's long-ago Minerva efforts that were intended to introduce OSH principles/concepts/philosophies into curriculum to attempt business majors at undergraduate and graduate levels to think along these lines before entering their careers in hopes that they might actively be supportive, or at least passively receptive, to such efforts. We aspire to recreate those efforts in concert with UConn's Management program and have received support of this proposal from the Management Department Head to have trainees teach OHP modules in all future undergraduate *Organizational Behavior* courses, as well as all MBA *Organizational Behavior* courses. Not only might this provide a first introduction of the information to the management students, but it will provide a learning opportunity for our trainees in being able to articulate the value of such OSH/OHP approaches to a business audience, which undoubtedly will be helpful to their future applied/research activities. To assist in this, we have also added Dr. Russell Matthews to our Advisory Committee. Presently on the Management faculty at the University of Alabama, Dr. Matthews is an alumni of our own I/O-OHP training program and was recruited to Alabama in an effort of creating a 3-line cluster of OHP scholars working in the Business School there. His experiences will be extremely helpful as we embark on this innovation. Additionally, we aspire to work with the School of Business's Small Business and Family Business outreach programs, which are partially federally funded activities to assist such businesses; we aspire to shore their consultants' understandings of OSH/OHP values and activities, as well as potentially work directly with the businesses in consulting capacities, as opportunities might be available. We envision this to be completed in ways similar to our own existing IPAC (student-centered consulting) program that is geared to provide trainees with direct, applied experiences under the tutelage of faculty. This groundwork has taken considerable time and effort to conceptualize and arrange, all of which has occurred during the current project period.

## **Program Products**

Past or current trainees published 25 products (articles, commentary, book chapter) during this project period; another 14 are in the review process. Given space limitations, conference presentations are not reported; to our best count, trainees were involved in 67 presentations or posters within this reporting period.

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