Preparing the Hospitality and Tourism Workforce for the Future of Work

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The COVID-19 pandemic has hit the hospitality and tourism industry especially hard.

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PREPARING THE HOSPITALITY AND TOURISM WORKFORCE FOR THE FUTURE OF WORK

The economic restructuring necessitated by the Covid-19 pandemic has ignited a fundamental transformation of the US workforce driven by powerful digital technologies. No sector has been hit harder than the hospitality and tourism industry (H&T), and no industry has more to gain from reinvention. H&T employs about 32% of the US labor force; however, workers' wages, benefits, and career support are among the lowest of all industries. Moreover, research shows that numerous jobs in H&T are susceptible to automation due to advancements in artificial intelligence (AI). The fears related to job loss resulting from applying advanced technology, such as AI, are rising, and the H&T workforce requires significantly higher levels of research support to advance the workers' skills and careers.

NATIONAL SCIENCE FOUNDATION GRANT

Aiming to develop methods and models for H&T workers to succeed in the future of work, Dr. Arthur Huang serves as the primary investigator for a team of UCF professors that successfully obtained a $977,566 grant (award no.: 1937833) from the National Science Foundation in 2019. This is the largest US Federal grant received by the Rosen College. The multidisciplinary team

consists of the following professors: Drs. Arthur Huang (Rosen College of Hospitality Management and College of Engineering and Computer Science), Nan Hua (Rosen College of Hospitality Management), Zhishan Guo (College of Engineering and Computer Science), and Sevil Sonmez (College of Business). The project is titled "Prepare the US Labor Force for Future Jobs in the Hotel and Restaurant Industry: A Hybrid Framework and Multi-Stakeholder Approach". This project aims to develop predictive models to understand occupational outlook and work reorganization under the influence of emergent technologies and the COVID-19 pandemic. Ultimately, the project will provide critically needed data on the evolutionary paths of jobs, trends of job tasks, skills and tools necessary, and workers' adaptation capabilities

in the hotel and restaurant industry, which are significantly under-represented in the public labor databases. The grant is also being used to support undergraduate, graduate, and Ph.D. students who develop new research directions. Three papers recently published by Dr. Huang and the research team revolve around 1) how COVID-19 affected the H&T workforce, 2) resilience-building strategies for the H&T workforce, and 3) H&T career transitions.

1) THE H&T LABOR MARKET AMID THE COVID-19 PANDEMIC

In this paper, a time-series analysis was used to examine high-frequency labor market data from small H&T businesses in the U.S. to investigate the effects of the states' legal mandates and intervention policies throughout the U.S. It found that low-preparation jobs in leisure and

Increasingly, hospitality and tourism workers will require IT skills.

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hospitality are most impacted and slowest to recover. In the swiftly changing environments, hospitality and tourism businesses that pivoted into new concepts or adopted new technologies are more likely to survive. However, such new adaptations may lead to fewer low-skilled jobs, combined job duties, and demand for higher-level skills. The pandemic has highlighted growing issues in workplace safety, skill gaps, and career preparation in the hospitality industry. Two recommendations are developed to support workers and businesses: (1) increasing and streamlining the

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training of transferable soft skills for hospitality workers, and (2) implementing flexible work arrangements that respond to the changing hospitality labor market.

2) RESILIENCE-BUILDING STRATEGIES FOR H&T DURING AND AFTER COVID-19

This study provides insight into strategies, success factors, and resources that may successfully help service firms respond to and create opportunities out of crises. The paper examines five resilience-building strategies and their sub-strategies with practical examples for service firms. 1) *Market orientation* highlights the critical role of market intelligence collection and dissemination in response to changing market demands during and after a crisis. 2) *Supply chain optimization* focuses on the agility and resilience of procurement

and distribution systems and the visibility in supply chains, which may help service firms to respond promptly and adaptively to supply chain disruptions caused by a crisis. 3) *Strategic corporate reorganization* emphasizes the importance of seeking partnerships to strengthen one's market position during and after a crisis. 4) *Innovation* underlines the role of product/service, process, marketing, and organizational innovation in firms' growth after a crisis. 5) *Business model transformation* discusses how firms may gain a competitive advantage by addressing an identified market demand with new technology during and after a crisis. The success factors related to the various approaches include organizational structure, leadership style, communication among employees, interaction with stakeholders, knowledge management, technology utilization, and flexible processes. Technological resources are among the main building blocks of resilience and should be cultivated by technical capabilities.

3) CAREER TRANSITIONS AND EMPLOYEE–EMPLOYER RELATIONSHIPS IN H&T

Dr Huang demonstrated in this paper that an employee sharing model (ESM) is a viable approach to improve labor market flexibility and provide immediate employment to H&T workers. Multi-stakeholder collaborations between employers, employees, governments, and education institutions are needed to facilitate the process. As external shocks, such as COVID-19, may cast long-term impacts on the labor market, a contextualized ESM that fits local market conditions can provide a promising solution to the increasingly dynamic H&T labor market conditions. Moreover, H&T workers require significantly higher levels of career support to enhance their future employment opportunities, especially as the labor market swiftly changes and adopts more advanced technological solutions. Allowing employees to develop the skills they need to enhance their career flexibility will increase their resilience at an individual level; however, the levels of education and support in H&T are disproportionately low when compared against other industries. There is a need to assist

employees in identifying which skills are most valuable to develop and demonstrate how career transitions may be feasible at the level of individual competency instead of traditional credential-related achievements, such as degrees, which come at a high cost in terms of time and money. Identifying the transferable skills to strengthen the career transition vectors is a research area that requires further exploration. Dr. Huang's research will focus on developing avenues for H&T workers to reskill and upskill to enhance their career flexibility and agility.

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Dr. Arthur Huang is an Assistant Professor affiliated with the Rosen College of Hospitality Management and College of Engineering and Computer Science. With an interdisciplinary background in engineering, social science, and public policy, Dr. Huang received his Ph.D. in Transportation Systems and an M.A. in Urban and Regional Planning from the University of Minnesota and an M.S. in computer engineering from Tsinghua University, China. His research interests include urban computing, human behavior, big data analytics in tourism management, sustainability, and the future of work.

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> NO SECTOR HAS BEEN HIT HARDER [BY COVID-19] THAN THE HOSPITALITY AND TOURISM INDUSTRY.