CONVERGE COVID-19 Working Groups for Public Health and Social Sciences Research

Research Agenda-Setting Paper

This paper was written to help advance convergence-oriented research in the hazards and disaster field. It highlights areas where additional research could contribute new knowledge to the response to and recovery from the pandemic and other disasters yet to come. Questions about the research topics and ethical and methodological issues highlighted here should be directed to the authors who contributed to this paper.

Working Group Name:

Economic Recovery: Enabling Comparative Research on COVID-19

Working Group Description:

This Working Group focuses on the economic recovery of businesses and economies from the COVID-19 pandemic. With communities around the world experiencing severe economic impacts, we anticipate a proliferation of efforts to track, assess, explain, and improve economic recovery. We have discussed key concepts, resources, and priority research topics to enable comparable data collection and mutual learning in this pandemic, as summarized below.

Priority Research Topics and Specific Research Questions:

Some aspects of business and economic recovery in the COVID-19 pandemic are new, while others reinforce and resonate with the existing hazards and disasters knowledge base. Our priority research topics emphasize novel phenomena that are important to understand in order to inform policy and planning. They are organized thematically in relation to understanding economic impacts of the pandemic, clarifying how these impacts occur over the course of recovery, and analyzing policy and other actions intended to influence the recovery.

Economic Impact:

The literature on business and economic impact in disasters highlights numerous key concepts. Impact occurs at the level of the business and household (micro), sector and socioeconomic category (meso), local and regional economies, and national and international economies (macro). Typically, impact includes property losses (stocks) and disruptions to business and economic activity (flows). Disasters tend to affect businesses differentially; for example, those that are small, in the retail or service sectors, and/or financially marginal tend to suffer greater losses.

As a dynamic, protracted economic shock, the pandemic is distinguished from most disasters in important ways: (1) It has caused severe economic disruption without property damage, particularly through disrupting labor supply, demand and expenditure patterns, and mobility; (2) Its specific nature has struck some sectors especially hard, such as the hospitality, recreation, and travel sectors; (3) It has caused new patterns of spatial impact, such as near-cessation of office-based work, empty central business districts, and lack of a distinct disaster region; (4) It has caused new patterns of unemployment and labor force impacts, related for example to the gig economy, migrant workers, broadly defined essential worker occupations, differential

technology/internet access, and mental health impacts; (5) Labor productivity has been affected in novel ways with differential consequences, for example, related to school closure effects on working parents and youth, and gendered consequences of work-from-home arrangements; (6) Policy responses such as lock-downs have themselves led to massive economic disruption; (7) The pandemic has disrupted economies across entire nations and concurrently across the globe; and (8) It has led to government economic assistance expenditures that are unprecedented in scale, scope, and variety.

Business and Economic Recovery:

Recovery generally occurs over time after an initial shock. Two businesses suffering the same initial impact, such as temporary business closure, may experience very different recovery trajectories and eventual outcomes. Recovery depends in part on what types of operational adjustments, or resilience tactics, are adopted. Feasibility varies by sector; for example, factories may be able to compensate for lost production by working overtime in subsequent months, whereas restaurants cannot make up for lost bookings later. Disasters – especially major ones – can cause long-term impacts such as permanent business closures and structural change in urban economies, with economies returning not to pre-disaster conditions but to a "new normal." Recovery often proceeds at different rates, with different long-term outcomes, across an impacted region. Disasters tend to accelerate rather than reverse prior trends, such as growth or decline. Understanding contextual factors is therefore important in "building back better."

Economic recovery in the pandemic will be affected by many novel factors: (1) There is considerable uncertainty regarding ongoing and future pandemic waves; (2) Telework and other resilience tactics have been implemented with unprecedented speed and pervasiveness; (3) Sector-by-sector economic re-opening has been constrained by government regulations, actions to stem viral transmission, and demand; (4) Failures of major businesses, relatively uncommon in other disasters, will reshape sectors such as airlines, tourism, and retail trade; (5) The national/global scale of the pandemic is curtailing economic aid that would typically be available from outside the disaster region; (6) Government support is taking different forms than the physical reconstruction and humanitarian aid typical in other disasters; (7) Travel restrictions, related for example to stay-at-home orders and closure of international borders, as well as the different timings of their lifting, will affect recovery rates.

Priority Research Topics	**Potential Research Questions**
1. Economic Impacts	• Research Question 1: *Impacts* - How do the economic impacts of the COVID-19 pandemic compare with those of other disasters and economic crises (e.g., severity, differences across sectors and business types, differential impacts on occupational and socioeconomic groups, types of infrastructure and supply chain disruptions)? • Research Question 2: *Mechanisms* - How did the different demand-side and supply-side disruptions cause economic impact? • Research Question 3: *Productivity* - How did the COVID-19 pandemic affect economic productivity, and what are the implications of this (e.g., stranded capital assets, new/increased use of ICT, working from home)? • Research Question 4: *Preparedness* - Was surprise in relation to novel economic impacts an important element in business and economic disruption? What aspects of preparedness for other disasters were helpful for pandemic response? To what extent are businesses now better prepared for—or conversely, more fragile in the face of—future COVID-19 waves, other pandemics, and other disasters?

2. Business and Economic Recovery	• Research Question 1: *Pandemic factors* – How influential are pandemic-related factors in terms of the extent and distribution of recovery (e.g., local severity of the pandemic, population behavioral changes, voluntary isolation of remote communities, government public health response, government economic support programs)? • Research Question 2: *Business recovery* – How is business recovery in a pandemic similar to, or different from, that in other disasters? What explains differentials in how well businesses recover? What are the characteristics of resilient businesses? How comparatively influential are contextual factors such as business size, sector, customer market, pre-existing debt, leadership, disaster preparedness, etc.? • Research Question 3: *Adaptation* – To what extent and for how long did businesses use this crisis to launch new ways of working (e.g., e-commerce, working from home, reduced hours)? Did businesses that adapted fare better in the short and longer term? How did supply chains adapt? What is resilience in the context of the pandemic? • Research Question 4: *Economic recovery* – How is economic recovery in a pandemic similar to, or different from, that in other disasters? What explains differentials in how well sectors and local/regional/national economies recover? What are the characteristics of resilient economies? How influential are contextual factors such as prior economic conditions, predominant sectors, economic diversity, regulatory environment, uncertainty, etc.? • Research Question 5: *Long-term effects* – To what extent are long-term and/or structural changes taking place in the process of recovery, for businesses as well as sectors and economies (e.g., innovations and different ways of operating that persist beyond the duration of the pandemic)? • Research Question 6: *Cascading and compounding disasters* – To what extent is the pandemic changing population vulnerability, risk, and coping capacity in relation to other disasters such as floods and wildfires that may be concurrent? What types of business and economic preparedness can help with pandemic as well as other disasters?
3. Preparedness, Panning, and Policy	• Research Question 1: *Adaptation effectiveness* – How effective were business adaptations or resilience tactics such as e-commerce and telework? What are the implications for business preparedness planning? • Research Question 2: *Government actions* – How effective were different types of government actions in facilitating business and economic recovery (e.g., closing and reopening policies, financial assistance, other forms of support, regulatory and liability uncertainty)?

Ethical / Methodological Considerations:

Business recovery studies of disasters most commonly deploy business surveys, while economic recovery studies typically analyze quantitative data or implement economic models (e.g., input-output or computable general equilibrium models). The COVID-19 pandemic raises some important new methodological and ethical considerations in investigating business and economic recovery:

- Given the novel circumstances now confronting our economies, including re-orientation to a "new normal," to what extent do existing concepts, approaches, and models remain appropriate?
- How can analyses address the dynamic interplay between the disease itself, the public health response, avoidance and other behavioral responses, and the economic response over a protracted period of complex recovery?
- Methodologically, how can avoidable losses from COVID-19 be defined and estimated?

- How can we ensure that data and analyses capture impacts on those most affected by the pandemic; for example, gendered impacts, workers in the informal and gig economies, those excluded from the digital scene? How can we capture perishable data from vulnerable groups, while ensuring they are not unduly burdened or subject to mental distress?
- How can economic analysis capture critical, policy-relevant tradeoffs; in particular, the tension between health/safety and livelihoods?
- How can research leverage international, comparative opportunities while adequately accounting for different cultural and economic contexts?
- How can ethical principles guide business and economic recovery? Some of the approaches being canvassed, such as basic income support or airline bailouts, raise fundamental ethical issues.
- Should economic research on COVID-19 recovery be oriented to facilitate change, and if so, what kind of change? What are the trade-offs between recovery to business-as-usual and recovery to more equitable, inclusive, and "climate-smart" recovery?

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