Research Statement

Caroline Welter

Overview

My research lies at the intersection of health economics, regional and urban economics, and public policy. I investigate how health disparities, access to care, and well-being policies unfold across space and socioeconomic lines. I am particularly interested in the heterogeneous effects of public programs and structural barriers that disproportionately affect vulnerable populations, including those in rural areas and communities facing increased challenges due to the shift to online services and the effects of automation. My work emphasizes how place and policy interact to shape program participation, labor market outcomes, and health.

My expertise is in the implementation of causal inference techniques and quasi-experimental designs. While my work is grounded in rigorous empirical strategies, I remain open to using alternative methods when they efficiently connect with the needs of policymakers. My long-term research goal is to produce timely, policy-relevant economic insights, particularly from the fields of health and regional economics, that inform the design and implementation of public programs.

1   Dissertation Research

My dissertation, titled *Three Essays in Health Economics*, explores how institutional barriers and administrative changes affect program participation and health access.

My job market paper, *The Impact of Social Security Administration (SSA) Field Office Closures on Disability Program Participation*, uses the natural experiment of widespread SSA office closures during the COVID-19 pandemic to estimate changes in disability enrollment. Using a difference-in-differences design with ZIP code-level data, I find that office closures decreased new disability enrollments by five to six beneficiaries per year per ZIP code. The effect was stronger in rural areas and communities with limited internet access, highlighting the costs of digital-only service models for vulnerable populations. This research underscores the importance of in-person administrative services and informs debates on service delivery reforms.

The second chapter of my dissertation evaluates maternal responses to the Zika epidemic in Brazil. I examine whether heightened awareness of Zika-related microcephaly risks altered maternal behaviors in ways that extended beyond the immediate threat, specifically by affecting childhood immunization patterns. This research highlights how government-led public health campaigns targeting one health crisis can produce spillover effects on other dimensions of child health. In doing so, it provides insight into the broader consequences of risk communication and the strain placed on the Brazilian public health system during times of crisis.

My research also examines how administrative complexity in public programs creates barriers to continuous care, particularly for medically vulnerable populations. The third chapter of my dissertation investigates the effects of Medicaid policy changes on the adoption of Continuous Glucose Monitoring (CGM) devices. Using restricted, de-identified patient data, I analyze how shortened eligibility review periods, from 12 months to 6 months in 2021 and then to 3 months in 2022, affected CGM uptake and related health outcomes. By showing how procedural burdens can disrupt access to essential diabetes technology, this study contributes to a broader understanding of how institutional design reinforces health disparities and limits the effectiveness of public health coverage.

2   Published and Ongoing Research

My published and ongoing research extends my broader agenda by examining how public policies interact with place-based vulnerabilities to shape economic and health outcomes. Across projects, I focus on how individuals and communities respond to systemic disruptions, whether administrative, environmental, or health-related, and how policy design influences resilience, access, and inequality.

Beyond my dissertation, I have developed a robust portfolio of research on urban resilience, regional economic shocks, and health outcomes. In a project on urban climate adaptation, I evaluate the economic costs of New York City's Financial District and Seaport Climate Resilience Plan. This cost-benefit analysis assesses the value of large-scale climate investments in light of long-term flood risks and contributes to understanding how urban policy can adapt to climate shocks that increasingly disrupt city dynamics. This work is currently under revise-and-resubmit at *Papers in Regional Science*.

In another study, I analyze the mitigating role of federal policies during the COVID-19 pandemic in Southwest Florida. We examine how stimulus checks and unemployment insurance shaped regional economic performance during a large-scale public health crisis. This project highlights the role of social insurance in buffering local economies against external health shocks and is under revise-and-resubmit at *Economic Analysis and Policy*.

My work in progress on obesity and urban sprawl in Brazil explores the relationship between urban form and health outcomes in a developing country context. Using municipal-level data from 2008 to 2021, I assess whether lower population density is associated with higher obesity rates. To address potential endogeneity in density, I instrument for urban sprawl using the historical layout of Brazil's federal highway system. Preliminary results suggest that greater urban sprawl is associated with lower obesity rates, contrary to findings from the United States, and point to important contextual differences in how urbanization affects health.

3   Future Research Agenda

My research bridges health, labor, and regional economics through a focus on public policy and access to care. Looking ahead, I plan to continue producing rigorous, policy-relevant research that informs both academic and public audiences. These are some of the projects I have begun preliminary work on and plan to continue developing in the near future:

- **Expanding SSA Closure Research:** Building on my SSA office closure research, I plan to explore whether other income support programs, such as unemployment insurance, may have served as temporary substitutes for disability benefits during the pandemic, potentially delaying or deterring applications. I also aim to investigate whether retirement benefit claimants (another population reliant on SSA services) encountered similar barriers to access. This broader population may also have been adversely affected by office closures, raising critical questions about federal cost-cutting strategies.

- **Telehealth Access and Licensing Barriers:** I am studying the impact of state-level restrictions on out-of-state telehealth providers in WVU Medicine's multi-state region. Using micro-level de-identified patient data, I will estimate the effects of the expiration of emergency licensing waivers on access to care from 2020 to 2024. This work has direct implications for health access in rural areas and underserved populations, and it may inform future licensing and telemedicine policy. As many states consider telehealth reforms, understanding how cross-state licensing barriers affect patient access is essential for facilitating care through telehealth and expanding provider options for those with limited local choices. Potential funding sources for this research include the NIH and NSF agencies.

- **Skill Transitions and Labor Markets under Automation:** In my current work with the Regional Research Institute at WVU, I examine how automation and shifting skill requirements are reshaping labor markets. Focusing on economically distressed regions, the project identifies potential job transitions for individuals based on their existing skills in the face of job displacement. The goal is to support regional economic entities in designing programs that help the workforce adapt by acquiring new skills or certifications, facilitating smoother transitions to new occupations with minimal retraining. This research is particularly relevant for public planners in rural areas, where retaining a skilled labor force is essential to sustaining economic growth. The project is currently supported by the Appalachian Regional Commission (ARC), which also represents a potential funding source for future research in this area.