Using the Eye of the Storm to Predict the Wave of Covid-19 UI Claims

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Abstract: We leverage an event-study research design focused on the seven costliest hurricanes to hit the US mainland since 2004 to identify the elasticity of unemployment insurance filings with respect to search intensity. Applying our elasticity estimate to the state-level Google Trends indexes for the topic “unemployment,” we show that out-of-sample forecasts made ahead of the official data releases for March 21 and 28 predicted to a large degree the extent of the Covid-19 related surge in the demand for unemployment insurance. In addition, we provide a robust assessment of the uncertainty surrounding these estimates and demonstrate their use within a broader forecasting framework for US economic activity.

Data description: The data we use for this project involves the weekly initial unemployment insurance claims report for each state and territory in the US, as well as the experience of the Google Trends reported search activity for the unemployment topic for each state for the weeks immediately surrounding major hurricanes as well as the Covid-19 pandemic.

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Keywords: unemployment insurance, Google Trends, hurricanes, search, unemployment, Covid-19

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