

# TRENDS IN CONVERSATIONS ABOUT SSDI IN ONLINE FORUMS

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Applications to Social Security Disability Insurance (SSDI) have declined in recent years but both research surveys investigating the decline and interviews based on self-reported data may fail to depict important personal situations or include financially vulnerable populations. This study uses a text analytics and text analysis approach to explore how individuals communicate, and to determine what information they share with each other about SSDI in online forums. Monitoring the reception to SSDI programmatic or policy changes can be helpful to policymakers as they consider future changes.

## **Discussions on SSDI application processes and review experiences**

We find that machine learning can be used to derive contextually meaningful topics from online forums containing SSDI-related conversations. Topics derived from online forums can be modeled via conversational connections into chronological associative networks (CANs), which map the networks' trajectories. These CANs can be used to analyze how conversations evolve on issues that are deemed germane to the communities of users surrounding SSDI applications. For example, during the period of observation, 2004 to 2009, conversations move from the topic of *information seeking* in the earlier years toward the topics of *communication with SSA/DDS* and the *appeals process* during the recession years. Additionally, a shift toward the topics of *pain* and *mental health* occurs during the recession recovery years, 2010–2013.

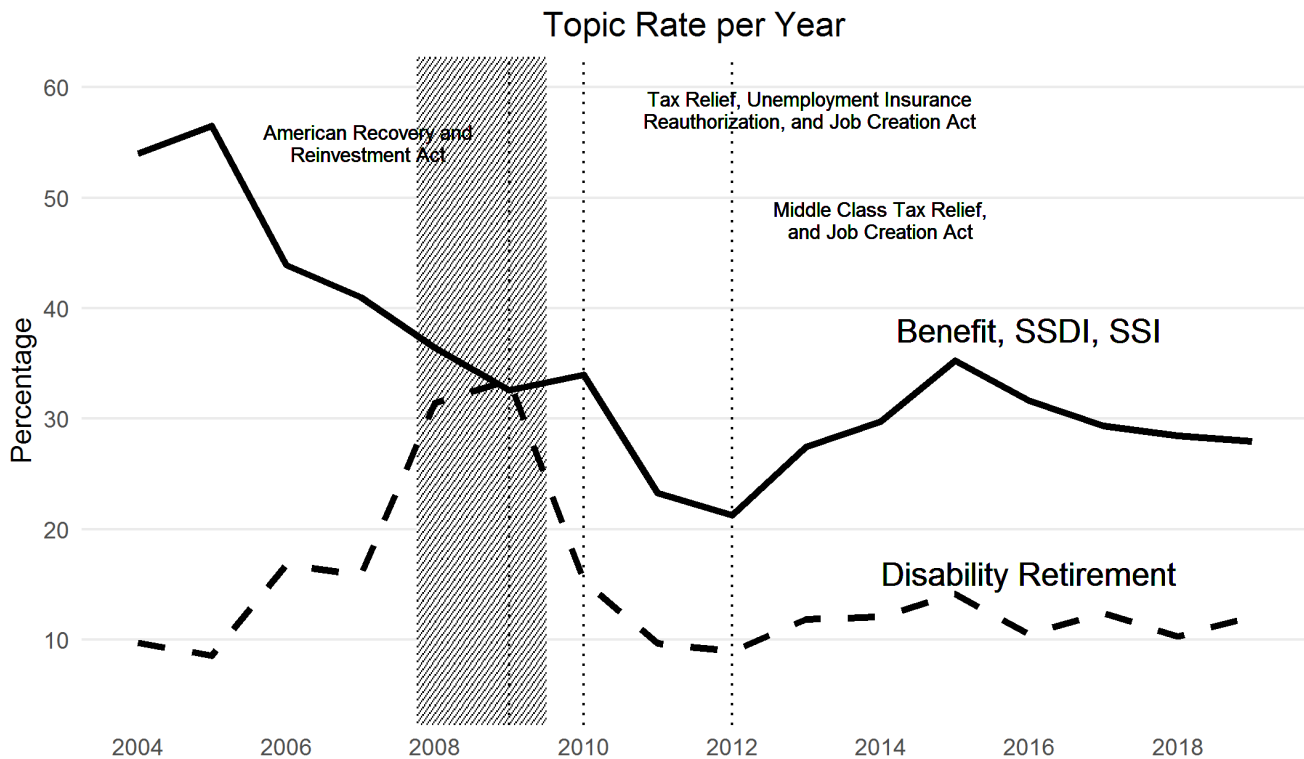
## **Online Discussion Topics Evolve with Policy and Economic Changes**

In addition to providing insights on the structural relationships between different issues, the longitudinal nature of the data also reveals the trajectory of these issues over time against the backdrop of environmental and policy changes. This information would be

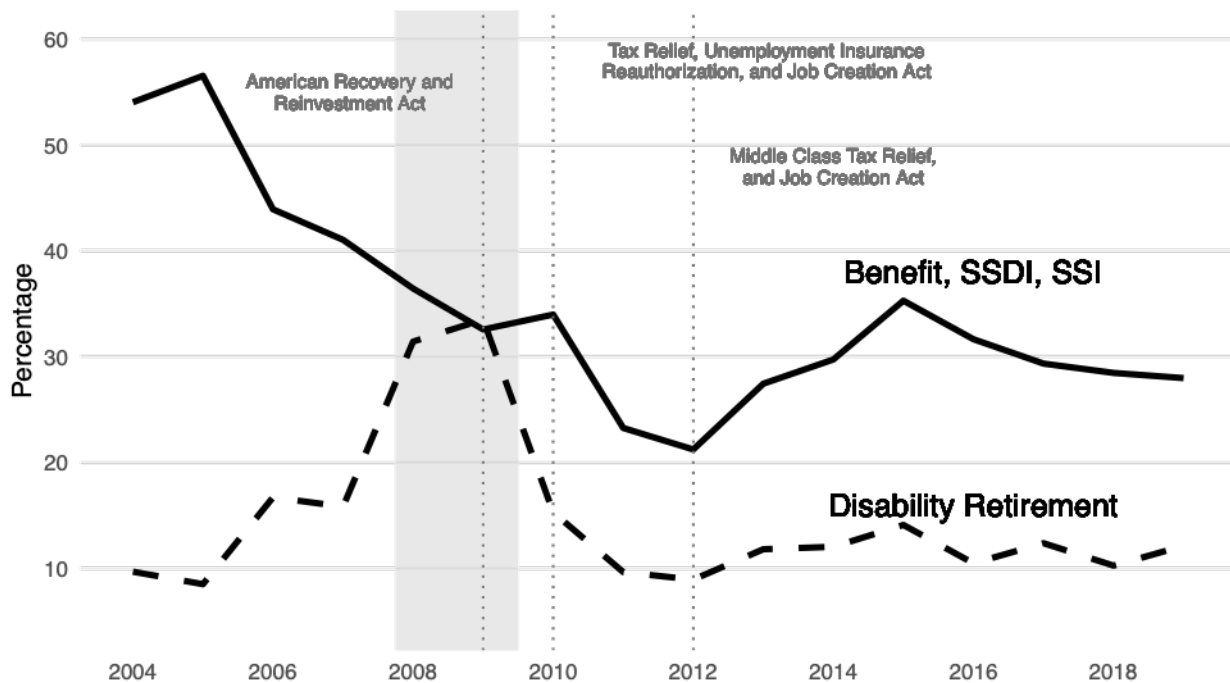
particularly useful in predictive model building and hypothesis testing, as well as in developing interpretive or explanatory models surrounding these issues. For example, conversations on retirement disability arguably should increase during periods of increased unemployment, as they did during the great recession period (2007–2009, the shaded area in below graph).

The following is an example of a graphical analysis of two derived topics (“Disability Retirement” and “Benefit, SSDI, SSI”) presented with relevant SSDI policies.

### Topic rate by year



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## Applying Machine Learning to User Generated Content (UGC) in Online Forums as a "Social Listening" Tool

We can monitor reception to policy changes and sentiments associated with macroeconomic and environmental changes in real time by following conversations in online forums associated with SSDI.

### Implications

- Machine learning can be used to derive contextually meaningful topics from online forums containing SSDI-related conversations.
- Topics derived from online forums containing SSDI-related conversations can be modeled via conversational connections into chronological associative networks (CANs), which map the networks' trajectories. These CANs can be used to analyze how conversations evolve on issues that are deemed germane to the communities of users surrounding SSDI applications.
- Policy makers and practitioners might consider and evaluate how and what information is exchanged in online forums and social media platforms given the increased use by SSA customers.