

DISSERTATION ABSTRACT

ESSAYS ON DYNAMIC STRUCTURAL MODELS OF
RETIREMENT AND ORGANIZATION

Chapter 1:

**The Effect of Social Security Auxiliary Spouse and Survivor's Benefits
on the Household Retirement Decision - *Job Market Paper***

Social Security provides benefits to a worker's spouse or survivor that alter the work incentives of both household members. In 2011, Social Security's Spouse and Survivor's Benefits amounted to \$112 billion, or 3.1%, of Federal expenditures. This paper develops a structural life-cycle model of household savings, labor supply, and benefit claiming. Future health, mortality, and medical expenses are uncertain. The model is solved separately for each household so that it captures how Spouse and Survivor's Benefits interact with the couple's age difference, private pensions, and unique earning histories. I estimate the model by method of simulated moments using data from the Health and Retirement Study. I simulate how responsive husbands' and wives' retirement decisions are to Spouse and Survivor's Benefits.

I find that: husbands and wives respond sharply to changes in the Survivor's Benefit, but little to changes in the Spouse's Benefit; the annuity provided by the Survivor's Benefit, even if reduced, creates a strong incentive for the couple's high earner to continue working; reducing the Spouse and Survivor's Benefits by half achieves 74.1% of the savings from their elimination. In addition, the model can explain high rates of benefit claiming at age 62 and joint retirement.

Chapter 2:

Old Age Separation and Labor Supply

I examine the impact of divorce and widowhood after age 50 on the separated individual's economic choices. I augment a standard life cycle model of household labor supply to reflect the potential loss of one or both members. The model predicts a separation impacts an individual's economic decisions through (1) asset loss, (2) spousal income loss, and (3) changes in the household's preference for leisure.

I test the relative influence of these factors on an individual's labor supply and retirement decisions using longitudinal data from the Health and Retirement Study. I find that female labor force participation increases by up to 15.7% in the six to eight years following divorce, compared with an insignificant decline in work amongst widows. I am able to attribute most of the work and delayed retirement response to losses in asset levels. This suggests that divorcee and widowhood poverty are driven by short-run financial concerns with important implications for life insurance and divorce settlements.

Chapter 3:
**Organizational Design in Landscapes with Contextual Interactions and
Fragile Interdependencies** - *with Brian Wu*

Businesses facing complex environments use varying organizational structures to respond to demand disturbances for their products. The management and organization literature has emphasized the quantity of interactions within complex systems as necessitating decentralized organizational structures. We show that the fragility of decisions and the existence of multiple-optima in a complex system, separate from the quantity of interactions, should be the primary rationale for selecting an organization's design.

Using a simulation model that nests the often used *NK* model, we are able to rationalize fragility and multiple-optima as phenomena that arise from consistency in the complementary nature of contextual interactions, rather than the total quantity of interactions. We develop simple heuristics to aid practitioners in identifying the circumstances that would lead to fragility and multiple-optima in complex systems and how it is likely to impact the efficacy of an organization's design in responding to demand disturbances.