Do you think you'll have enough money to support your retirement life? Your answer may be yes, because we all have social security. But, is it really secure? People in Greece may not think so, as their pensions have been reduced significantly since the European debt crisis. Although it is an extreme case, pension systems in many other countries are also unsustainable. And when it comes to China, the situation is even more challenging and alarming due to its one-child policy. This picture describes a typical structure of millions of Chinese families including myself. My husband and I are both the only child in our families. In the future, we'll have to support four parents between us. It'll be such a big pressure that not only my generation but also the pension system is hardly able to handle it. Researchers from around the world have been searching for solutions for many years. But why designing a good pension system is so difficult?

Besides the aging population crisis, another difficulty is that we are living in a changing environment; you never know exactly what will happen tomorrow: how high will the price inflation be, how many years ahead are we going to live, or even who will be the next prime minister and which policies will he or she implement? Those uncertain factors, however, are closely related to our future retirement incomes. So my research will take those uncertainties into consideration using past data and historical experience. With the help of newest statistical tools and computers, I'll simulate the future path of the pension system from present to several decades later. In this way, we could analyse the potential sustainability of the pension system and provide suggestions to both individuals and governments.

By applying the method to China, this research could hopefully help over two hundred millions of old people like my parents be clear how secure are their pensions and how to get prepared beforehand. This research may also help the government to test various reform options and see which one will take effect to save the pension system. If we could solve the problem for the largest country in population, it'll benefit world economy. In the future, I'll also apply this method to other countries facing similar aging and pension crisis. And it is my hope that one day our social security will be really secure.
Secure the Social Security
A Case Study of China’s Pension System