Research Statement

My research is empirical, but rooted in classical dynamic labor supply and consumption-saving theory, with the overarching goal of informing public policy. Using structural and reduced-form econometric tools, I have applied these theoretical concepts to several economic subfields. I have a continuing interest in pension economics questions such as the design of public and privatized pension system (Joubert 2011, Joubert and Todd, 2013, Casanova and Joubert, in progress). More recently I have used U.S. panel data to examine overeducation and skill mismatch (Clark, Maurel and Joubert, 2013; Maurel and Joubert, in progress). My research also deals with the development economics topics of informality and dualism (Joubert, 2011, Joubert and Todd, 2013) and family economics topics such as divorce legalization (Choi and Joubert, in progress).

Two underlying themes unify my research agenda. My projects are concerned with sources of economic risk faced by individuals over the course of their life cycle. The goal is to explore the design of institutions that protect against these risks, while taking into account how individuals may in turn adjust to this institutional context. Labor income risk, longevity risk, asset return risk but also the risk of marital transitions, all play a part in my research. Specifically, I am interested in the dynamic dimension of these risks: as we progress through life, uncertainty is gradually resolved just as our capacity to adjust our decisions diminishes, particularly as our labor market opportunities dwindle. This creates a motive for self-insurance and role for social insurance.

The second theme is methodological. I regard empirical dynamic models of lifecycle decisions as an important tool to (i) interpret the panel data sets that describe the evolution of individuals’ economic well-being overtime and (ii), to explore social insurance design beyond existing programs. I also value the possibility offered by structural estimation to confront theory and data not only qualitatively but also quantitatively. This structural approach is usefully enhanced and complemented by reduced-form methods as well as by exploiting experimental or quasi-experimental variation whenever it is available.

Below I classify my past and ongoing projects into three broad themes: pension system design, skill mismatch and inequality, and marital transition risk.
Pension system design

My research understands the main goal of pension systems to be to guarantee a minimum level of consumption after retirement through some form of minimum pension benefits.\(^1\) This creates two sources of moral hazard: workers can (i) reduce their savings and (ii) adjust their labor supply if they expect to rely on government transfers in old age. In turn, moral hazard as an impact on government costs by lowering fiscal revenue and raising the number of individuals qualifying for minimum pension benefits. Capturing these constraints to pension design necessitates to jointly model saving and labor supply decisions overtime. I started this line of research by studying the case of Chile, a country that has one of the longest-running nationwide private retirement accounts systems in the world, operating since 1980 (see Joubert 2012 and Joubert and Todd 2013). Chile’s pension system served as a model for many other countries, inspiring for example president Bush’s 2005 attempt at partially privatizing Social Security. More recently I became interested in the design of America’s Social Security program (Casanova and Joubert, in progress).

In Joubert (2012), linked administrative and self-reported panel data from Chile are used to estimate a dynamic household labor supply and saving decision model with an informal sector and a rationed formal sector. In this middle-income country context, I argue that modeling both the formal and informal sectors of the labor market is necessary as workers may choose to work informally in order to avoid paying the pension contributions that are compulsory in formal jobs. I find that generous minimum pension benefits can reduce the fraction of workers who make pension contributions significantly, particularly among married women. In counterfactual experiments, I explore whether the rate at which government transfers are tapered off as a function of the funds accumulated in the individuals’ pension account can be adjusted to minimize that distortion. I conclude that sophisticated, tapered, minimum pension designs do not help achieve significantly higher coverage rates but will be much costlier than a simple consumption floor.

Joubert and Todd (2013) extend the methodology used in Joubert (2011) to incorporate divorce risk, longevity risk, and fertility, in order to examine the causes of gender disparities in pension levels. Modeling the labor supply and saving decisions of couples faced with the probability of divorce makes it possible to evaluate the short and long-run effectiveness of a recent reform, which introduced new

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\(^1\) Alternatively, the so-called paternalistic view of pension systems is that they ensure that individuals save at some “appropriate” level.
features designed to reduce old-age poverty and gender gaps in pension accumulations and benefits. We estimate our behavioral model using data collected prior to the reform and assess the out-of-sample fit of the model using one year of post-reform data.

In an ongoing project (Casanova and Joubert, in progress) we pursue the exploration of pension design in the American context. The goal is to study America’s Social Security program’s provision regarding divorced women, a section of the population which is particularly vulnerable to poverty in old age. Divorce rates have climbed steadily since the late 60s for all age groups, while the probability of remarriage has declined. One consequence of these two trends is a dramatic increase in the share of divorced individuals reaching retirement age. We develop a life-cycle model of consumption, labor supply, and remarriage decisions to study how divorces that take place after age 45 (middle-age divorces) impact retirement timing, pension income, savings, and old-age poverty. We plan to use the estimated model to examine the extent to which the Social Security program offers protection against old-age poverty for divorced women and to predict old-age outcomes for the Baby Boomer generation. This cohort, currently entering retirement, displays considerably higher divorce rates than their predecessors.

**Schooling mismatch and income inequality**

A second line of research focuses on a specific kind of labor market risk: the risk of failing to find a job that matches one’s qualifications. As students, especially in the U.S., accumulate skyrocketing levels of college loan debt, there is a growing concern that expensive skills acquired in college may be underutilized in low-paying jobs. At the aggregate level, “overeducation” (and “undereducation”) could reflect an inefficient allocation of worker skills to jobs. From a positive point of view, overeducation is potentially an important component of residual income inequality (i.e. conditional on schooling attainment). However, the policy implications of overeducation could be very different depending on whether the underlying economic mechanism is mainly labor market frictions versus other factors such as selection on unobservable skills, compensating differentials and career mobility prospects.

In a first paper (Clark, Joubert and Maurel 2013) we argue that it is crucial to go beyond the cross-sectional stylized facts and investigate individual transitions in overeducation status and the corresponding effects on wages in order to disentangle the role played by the different mechanisms. We analyze career dynamics for the nearly 30% of U.S. workers who are deemed “overeducated” in the economics literature (see, e.g., Leuven & Oosterbeek, 2011) using data from the National Longitudinal
Survey of Youth 1979 combined with the pooled 1989-1991 waves of the Current Population Survey. We find that overeducation is a persistent phenomenon associated with lower current as well as future wages later in the career, which points to the existence of scarring effects through stigma or human capital depreciation. Further, the hazard rate out of overeducation drops by about two-third during the first 5 years spent overeducated. However, the estimation of a mixed proportional hazard model suggests that the declining hazard rate is attributable to selection on unobservables rather than true duration dependence.

A second paper (Joubert and Maurel, in progress) nests competing theories overeducation into an empirically tractable model that can account for the longitudinal patterns documented in Clark, Joubert and Maurel (2013). This involves incorporating labor market frictions and non-pecuniary benefits into a dynamic occupational choice model with endogenous schooling decisions. Using data from the NLSY79 and CPS surveys, the estimation will exploit the longitudinal patterns in overeducation and its associated earning dynamics to identify the relative importance of each mechanism.

**Marital transition risk**

In working on pension design and gender inequality, I came to realize that marital transitions constitute a major source of life cycle risk that is under-explored in the structural literature. This is in part due to the technical challenge of specifying, solving and estimating dynamic models with multiple decision makers within the household. Marital risk is an important aspect of two of my projects described above (Joubert and Todd 2013 and Casanova and Joubert, in progress). A motivation for both of these projects is the concern from pension system designers about the financial vulnerability that accompanies divorce, particularly for women with discontinuous employment histories.

As an attempt to shed light on the institution of divorce itself, a recent project (Choi and Joubert, in progress) exploits the variation introduced by divorce legalization in Chile in 2004. A look at the pre-divorce situation in Chile suggests that legal divorce is not necessary for individuals to separate from their spouse and start new long-term relationships. Instead legal divorce provides remarriage opportunities, thus changing the bargaining within marriages. An equilibrium model of two-sided dynamic marital matching that captures this effect is estimated on the pre-law data to evaluate the economic gains from marriage. The model can then be validated using post-reform data and used to evaluate the distributional welfare effects of restricting access to divorce.
References:

Casanova and Joubert (in progress) “Divorce, remarriage, and old age poverty”

Choi and Joubert (in progress) “The value of remarriage: evidence from Chile’s 2004 divorce legalization”


Joubert (2012) “Pension design with a large informal sector”, revise and resubmit at the International Economic Review

Joubert and Maurel (in progress) “A structural dynamic analysis of overeducation and mismatch”

Joubert and Todd (2013) “How the design of a pension system influences old age poverty and gender equity: a study of Chile’s private retirement accounts system”, working paper