

# **EXAMPLE**

**1**

[REDACTED]

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**Project Title: A Longitudinal Study of Calling in Musicians' Careers**

### **ABSTRACT**

"[M]aybe going to a conservatory is like being a compulsive gambler: It is one big bet, but the drive to study music is so blinding, and doing anything else so inconceivable, that young players are oblivious to the risk. Sometimes it is hard to determine whether they are driven by single-mindedness or they live in self-denial"(Wakin, 2004). My research focuses on the psychology underlying people's decisions to pursue careers in fields with daunting odds of success, such as professional music career path just described, and how these careers unfold over the span of many years. I propose that some people may experience a *calling* that compels them to pursue paradoxical career paths. Analyses are based upon a 7-year, 5-wave longitudinal study of 567 talented high school musicians who progressed from high school to college to early career during the study (2001-2008).

I request funding for statistical research assistance to support me in the successful completion of two papers that are part of this longitudinal study. For both papers, data collection is complete, preliminary analyses are complete, and working drafts are complete. Paper 1, *Nothing Personal*, is an empirical examination of the factors that enable people to find—or develop—a calling. It recently received a revise and resubmit from the *Journal of Applied Psychology*, a top-ranked journal. This paper has won major awards at two international conferences. Paper 2, *Siren Song*, addresses the question of why, given the tremendous riskiness of pursuing a professional career in music, so many young people forge ahead in pursuit of their dreams. This paper has also won a major award at an international conference. A Faculty

Research Grant would enable me to expedite my overall research progress. For *Nothing Personal*, it would enable me to (1) generate the sophisticated, rigorous statistical analyses necessary for addressing the *Journal of Applied Psychology* reviewers' requests and (2) complete my manuscript in time to resubmit it by the journal's deadline, the end of the spring semester. For Paper 2, it would enable me to generate the sophisticated, rigorous statistical analyses necessary for success at the A-level journals I am targeting, the *Journal of Applied Psychology* or the *Academy of Management Journal*, and (2) complete my manuscript in time to submit it for publication by the end of August 2010.

### **BACKGROUND**

Regardless of the type of career path young musicians desire, the chances of "making it" are low due to a challenging labor market characterized by a high supply of talented, motivated people, but low demand in terms of numbers of jobs available (U.S. Department of Labor, 2005). From a psychological perspective, what is going on in the minds of these young musicians that enables them to pursue this seemingly irrational career path? I propose that these young musicians may be experiencing a *calling*. Consistent with prior research, I define calling as a psychological orientation people can feel toward a domain such that they experience their involvement (1) with intensity and as (2) enjoyable; (3) meaningful; and (4) a central component of their identity (e.g., Berg, Grant, & Johnson, Forthcoming; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997). I launched an ongoing longitudinal study of 567 musicians who were students at two top U.S. summer high school music programs in 2001. This population served as a suitable context for several reasons, particularly that its members: (1) were at a phase in their career path (the transition from high school to college) that is the most critical for examining the

early development of calling; and (2) had been significantly involved in the field toward which the calling is oriented (music); but (3) had not yet committed to pursuing a career in that field.

**Paper 1:** “It’s Nothing Personal: A Longitudinal Study of Calling.” This paper focuses on the question of what shapes the calling that may be guiding these young musicians as they decide whether or not to embark on the professional music career path: (1) To what extent is calling developable? To what extent does calling change over time? (2) What factors predict why some individuals’ calling increases, others’ decreases, and others’ stay the same over time? At the Academy of Management Conference, this paper won the Best Paper Award from the Careers Division, was a Top-3 Finalist across all divisions of the Academy of Management for the William H. Newman Award for Best Paper based on a recent dissertation, and was included in the conference’s Best Paper Proceedings. At the European Group for Organization Studies, this paper won the Best Paper Award from the Careers Sub-Theme and was a nominee for the Conference Best Paper Award.

**Paper 2:** “A Siren Song?: A Longitudinal Study of Calling and Ability (Mis)perception in Musicians’ Careers.” This paper focuses on the question of how a strong calling may influence seemingly irrational embarkation on the professional music career path via leading young musicians to overestimate their musical abilities, above and beyond their actual musical abilities. At the Academy of Management Conference, this paper won the award for Best Paper based on a recent dissertation from the Careers Division.

## CONTRIBUTION

Both *Nothing Personal* and *Siren Song* fill important gaps in the organizational behavior and career literatures. *Nothing Personal*’s results highlight that calling can change over time, and this change depends on behavioral and social factors related to music. Individual attributes, including musical ability and demographic variables (e.g., gender), do not predict change in

calling. Rather, change in calling is “nothing personal”—it is not who one is that influences the development of calling over time; rather, it is what one does and who one does it with that matter. Thus, a calling is not just “found;” rather, it can be developed and changed over time.

*Siren Song* provides a glimpse into a possible dark side of calling. Authors in both scholarly and popular outlets generally assume that experiencing a calling is positive, including that it is a central element of a happy, deeply fulfilling life. I argue that, like the Sirens of Greek mythology, the powerful enchantment of a calling may obfuscate the risks inherent in attempting to fulfill it. A strong calling, especially in combination with low objective ability, may encourage deleterious career decisions, such as pursuing career paths with low odds of success.

In both papers, my approach is distinctive among scholars of calling because of my longitudinal methodology. As a career-related phenomenon, calling exists over the course of time by definition (Hall, 2002). Prior empirical studies of calling have not examined it over a span of time that is meaningful for furthering our understanding of career development. This suggests not only that longitudinal research is needed, but that longitudinal research at a particular stage of individuals’ lives is needed: when they are beginning to make choices about how they will interface with the world of work. These findings will be of interest to scholars, career counselors, music educators and students, and, more broadly, to anyone contemplating which career path to pursue.

### **COST**

I request \$4000 for statistical research assistance to aid me in analyzing my papers’ longitudinal data (60 hours x \$66.67/hour). I will hire two statistics faculty members from Technion—Israel Institute of Technology’s Statistical Laboratory (Haifa, Israel), which provides consulting services to academic researchers. I am currently in Israel as a visiting scholar at Tel Aviv University (Fordham Faculty Fellowship, 2009-10). A senior colleague in my department

has worked with the Technion Statistical Laboratory statisticians on top-tier publications, and he introduced me to them specifically to get help with my two papers. For *Nothing Personal*, statistical research assistance is important to its successful revision and resubmission because (1) the reviewers requested revisions to the analyses that are sufficiently complex that they extend beyond my statistical expertise and (2) the *Journal of Applied Psychology* places a particularly strong emphasis on the statistical and methodological rigor of its papers. Likewise, *Siren Song*'s analyses are sufficiently complex that I also need assistance in completing them at a level that will be viable at a top-tier journal. I am confident that this statistical research assistance will maximize the chances that *Nothing Personal* will progress from revise and resubmit to acceptance and that *Siren Song* will begin a successful publication journey.

### **CONCLUSION**

The results from *Nothing Personal* and *Siren Song* will make important contributions to the organizational behavior and career literatures. The reception these papers have already received—both are award-winning and *Nothing Personal* earned a revise and resubmit from a top-ranked journal—suggests that both have the potential to become strong publications. A Faculty Research Grant for statistical research assistance will enable a timely and successful completion of both papers. As a junior faculty member, it is especially critical for me to move my papers through the publication process as quickly and effectively as possible. I sincerely hope that Fordham will support me in this endeavor by awarding me a Faculty Research Grant.

# **EXAMPLE**

**2**

Fordham University Research Grant Funding Narrative: Understanding the Saving  
Decisions of Entrepreneurs

## 1 Abstract

If awarded, a Summer Faculty Research Grant would enable me to forego the supplemental income of teaching or outside projects to devote three months to my collaborative research on the role that entrepreneurship plays in capital accumulation and wealth inequality. As such this award would:

1. allow me to build on my two previous papers in this area, “Wealth and the Capitalist Spirit” published in the *Journal of Macroeconomics* and “Wealth, Industry and the Transition to Entrepreneurship,” under review at the *Southern Economic Journal*;
2. support the publication of my related paper (with Sang-Wook Cho), “Tax Treatment of Homeownership and Wealth Inequality,” which has received a Revise and Resubmit from the *Journal of Macroeconomics*;
3. foster my ongoing research “Understanding the Saving Decisions of Entrepreneurs” in order to produce a paper for submission by mid-summer 2010 for *The Journal of Monetary Economics*, and
4. continue my related collaborative work with Dr. Cho, “Entrepreneurship, Housing and Wealth Inequality,” in order to complete a paper for submission by Fall 2010 for *The Review of Economic Studies*.

Specifically, a Faculty Research Grant would enable me to dedicate the summer of 2010 to completing the revisions of “Tax Treatment of Homeownership and Wealth Inequality” for the *Journal of Macroeconomics*, as well as to finish the simulation of the model I am using both for my own paper and for the one with Dr. Cho, so those papers can be submitted by mid-summer and fall, respectively. While both papers are in complete draft form, the model underlying them needs to be re-worked and the revised model needs to be re-simulated. I will make two important additions to the current baseline model: allowing entrepreneurial projects to be heterogeneous in terms of start-up cost and project type and including explicit liquidity constraints. A third addition to the model, to include human capital accumulation as one of the factors that influence the choice between wage work and entrepreneurship, might go beyond the scope and time-frame of this project and so may be left for a follow-up paper.



## 2 Background

In this extension of my longterm research on the role entrepreneurship plays in capital accumulation and wealth inequality, I aim to understand and quantify the motivations for entrepreneurial saving. Most macroeconomic models for understanding general saving behavior are not able to account for the high concentration of wealth (relative to income) among entrepreneurs, and consequently predict both a much lower aggregate capital stock and much smaller individual saving accumulation among the income rich than we observe. However, two new approaches have demonstrated a promising ability to match the data.

The first approach focuses on the reasons an individual may accumulate extreme wealth, other than as deferred consumption (which includes retirement saving and saving in anticipation of future medical expenses), such as to leave a bequest, to accumulate wealth for its own sake (i.e., ‘the capitalist spirit’), or for the power and importance large estates confer (i.e., status) or for some other reason. These reasons work through the utility function, modifying the individual’s motivation for saving.

The second approach recognizes that entrepreneurs hold a large fraction of overall wealth in the U.S. and speculates that capital market imperfections—e.g., the shortsightedness of lenders—prevent aspiring entrepreneurs from creating firms or requiring them to use their own wealth as start-up capital or collateral for a new venture. Although this idea of sharply restrictive liquidity constraints holds some sway, and quantitatively can match some of the skewness of the wealth distribution, there is much controversy about how meaningful such liquidity constraints are for the majority of entrepreneurs or the economy in general. If liquidity constraints were as important as theoretically claimed (see Cagetti and De Nardi 2006), they would result in fewer entrepreneurs, smaller firms, lower overall wealth concentration and a smaller aggregate capital stock and arguably less innovation than is present in the U.S. economy. Thus recent empirical literature (e.g., Hurst and Lusardi 2006, Demiralp and Francis 2009) has re-examined this issue and finds that the relationship between wealth and entrepreneurship depends on a complicated interplay of human capital accumulation, the type of business an individual wishes to begin, and that business’s start-up capital requirements. These studies show that liquidity constraints are unlikely to affect the majority of aspiring entrepreneurs, thus questioning the relevance of the findings concerning sharply restrictive liquidity constraints. This research, from which my current work is the logical outgrowth, also has policy implications: if my thesis is correct, government assistance or intervention in capital markets to reduce liquidity constraints may be unwarranted or even imprudent.

### 3 Contribution

In “Understanding the Saving Decisions of Entrepreneurs” I utilize both of these approaches to produce a broader understanding of how individual preferences and potential constraints on beginning a business interact. I will do this by (i) using direct preferences for wealth as a means to understand extreme wealth accumulation; (ii) including explicit liquidity constraints for potential entrepreneurial projects; (iii) allowing the entrepreneurial projects in the model to be heterogeneous in terms of start-up cost and project type. In “Entrepreneurship, Housing and Wealth Inequality” Dr. Cho and I add to my model housing-tenure choice, where housing can further provide collateral for entrepreneurial projects.

The current literature on understanding the skewness of the wealth distribution has focused on dynastic models in which individuals are part of long lived families and bequests form the predominant intergenerational link (De Nardi, 2004; Fuster, 2000). While this recent work (e.g., Cagetti and De Nardi 2006) combining entrepreneurship with such bequest motives has met with some success, there are serious explanatory hurdles which justify the pursuit of a non-dynastic explanation of wealth accumulation. As an alternative to problematic bequest motives, we can consider the ideas of Weber (1905) and Smith (1776) before him who proposed that individuals have a ‘capitalist spirit’: an innate desire to be frugal, accumulating wealth throughout their lifetime. The idea that individuals have a direct preference for wealth or ‘capitalist spirit’ is most easily interpreted through modification of preferences so that utility expresses preferences not only over consumption (and possibly leisure) but also over wealth holdings directly. Capitalist spirit preferences are also not subject to the problems faced by the dynastic approach.

Entrepreneurs also play an important role in capital accumulation and wealth concentration. The wealth of some entrepreneurs is typically attributed, in part, to the need to meet collateral conditions in order to gain loans to start or expand a business (Gentry and Hubbard, 2000; Quadrini, 1999; Cagetti and De Nardi, 2006). Early research on this topic consistently found a positive relationship between wealth and the propensity to become an entrepreneur, suggesting that individuals face binding liquidity constraints in entrepreneurial choice decisions (Evans and Jovanovic 1989; Holtz-Eakin, Joulfaian, and Rosen 1994); as a result there are fewer entrepreneurs and smaller entrepreneurial ventures than there otherwise would be. This view has recently been challenged by Hurst and Lusardi (2004) who argue that the underlying relationship between wealth and the probability of entrepreneurship is nonlinear, and the positive correlation between them emerges when the relationship is forced to fit a linear model. They show that over a majority of the wealth distribution the effect of wealth on the

probability of transitioning into entrepreneurship is insignificant. Other studies (including Demiralp and Francis 2009) suggest that when the endogeneity of wealth is properly accounted for, liquidity constraints may not have much effect on entrepreneurship. Demiralp and Francis (2009) also find that the effect of wealth on entrepreneurship varies according to human capital formation (education and work experience prior to entrepreneurial activity) and the type of industry the individual enters (high or low capital industries). Recent work by Kerr and Nanda (2009) and Nanda (2009) suggests that the relationship between entrepreneurship and wealth is much more complicated, depending also on the scale of the projects attempted as well as whether the project uses existing technology or intends to develop new technology (for example, contrasting opening a hair-dressing shop versus a nanotechnology firm). The occupational class designation ‘entrepreneur’ thus obscures a significant amount of heterogeneity in terms of entrepreneurial project scale and type, ability, and funding needs and deficits thereof so that treating entrepreneur as a homogeneous classification may result in incorrect inferences about the outcomes of constraints (for example).

Threading together these two ideas, that individuals have capitalist spirit preferences and are heterogeneous in their need for capital, I believe I can contribute to (i) a general understanding of the interplay between preferences and constraints in the entrepreneurial decision; (ii) the policy debate on government involvement in facilitating lending for new projects; (iii) the role entrepreneurial capital accumulation plays in wealth inequality in the U.S. Improving our understanding of the nature of wealth inequality also provides important information on how particular economic policies (such as estate taxes, small business grants, and capital gains taxes) affect individual behavior and the distribution of wealth.

In the current draft of “Understanding the Saving Decisions of Entrepreneurs”, I look at the internal motivation for wealth accumulation and the external factors affecting the ability to become an entrepreneur (which contribute to wealth accumulation). To analyze these issues, I calibrate a life cycle model with occupational choice between wage work and entrepreneurship where workers face uninsurable income uncertainty, entrepreneurial ability increases with tenure, and households have capitalist spirit preferences. I allow entrepreneurs to borrow freely, according to their intertemporal budget constraint. I find that the model generates a distribution of wealth that closely approximates the U.S. wealth distribution and matches several of the stylized facts about the U.S. economy, namely, the lack of de-cumulation by the elderly, the large share of wealth held by entrepreneurs, and the small share of wealth the majority of the population holds (mostly wage-workers).

## 4 Conclusion

This project, “Understanding the Saving Decisions of Entrepreneurs” builds on the results from two previous papers, “Wealth and the Capitalist Spirit,” published in the *Journal of Macroeconomics* and “Wealth, Industry and the Transition to Entrepreneurship” (with Berna Demiralp), under review at the *Southern Economic Journal*. It is also fundamental to the progress of my ongoing project with Dr. Cho, which has already produced one paper on “Tax Treatment of Homeownership and Wealth Inequality” (a ‘Revise and Resubmit’ at the *Journal of Macroeconomics*); the research I have described will allow us to finish another, “Entrepreneurship, Housing and Wealth Inequality.” The proposed project is a continuation both topically as well as methodologically of my previous work. It uses the same modeling and programming techniques used in the papers with Dr. Cho and the same basic structure as “Wealth and the Capitalist Spirit”. Drafts of my paper have been presented at the University of New South Wales in Sydney as part of their macroeconomics lecture series, and Lafayette College as part of its economics lecture series. I intend to present it this spring at several regional universities and submit it to summer conferences. The goal of the project is to produce a polished paper for submission by August 2010 to the *Journal of Monetary Economics*.

Dr. Cho will be in residence visiting Fordham University between February 26 and August 20, 2010 to facilitate our work on this second paper which we will be submitting for publication in the fall of 2010. My first priority however will be to work with Dr. Cho to submit the revisions for the “Tax Treatment of Homeownership and Wealth Inequality” to the *Journal of Macroeconomics* by July 2010.

Being able to spend several months focused on the revisions and the innovative research from the two papers in progress will provide me with time to advise several of our PhD students on similar topics. These projects require a significant amount of theoretical work, both mathematical and computer programming, that will allow me to improve my own skills in modeling and programming thus further aiding my work with our PhD students. The results of this research will also have several policy implications related to capital taxation, grants or loans to small businesses, and how small businesses could be fostered which will be analyzed more closely in follow-up papers.

In summary, receipt of a Summer Fordham Research Grant would allow me to focus on and improve my expertise in my main field of research, entrepreneurship, saving and wealth inequality, to complete a revise and resubmit to generate a new publication, to finish new research on two promising papers to have under review by the fall of 2010 and to hone my skills so that I can be a better adviser to my graduate students and gain further knowledge that will aid my teaching.

# **EXAMPLE**

**3**

# Monetary Policy Effectiveness

## 1 Abstract

If awarded, a Summer Faculty Research Grant would enable me to forego the supplemental income of teaching or outside projects to devote three months to my collaborative research on how financial innovation may alter the effectiveness of monetary policy and whether there is empirical evidence for the balance sheet channel of monetary policy. As such this award would facilitate me and my co-author<sup>1</sup>:

1. further improving the theoretical model and completing the revisions requested by the *Journal of Banking and Finance* to enable publication of our paper “Securitization and the Balance Sheet Channel of Monetary Transmission”, which presents an argument supported by empirical evidence that the effectiveness of monetary policy as a tool to manage the economy is enhanced for banks that securitize their loans;<sup>2</sup>
2. completing by fall 2011 for submission to the *Journal of Monetary Economics* a second, related paper titled “The Credit Channel of Monetary Transmission: Evidence from Loan-Level Data”, for which we are in the process of cleaning and preparing our collected data for empirical analysis;
3. using these publications as a platform from which – employing the second project’s rich loan-level data – to comprehensively analyze the interlinkages among monetary policy, financial innovation, and bank lending.

Consequently, a 2011 Summer FRG would come at a critical juncture in my career, supporting the imminent publication of one article, the submission of a second to an identified top-tier journal, and commensurately laying the foundation for my future, fruitful scholarship in this area.

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<sup>1</sup>Uluc Aysun, Assistant Professor, Department of Economics, University of Connecticut.

<sup>2</sup>*Securitization* is a form of financial innovation by which loans are pooled and “securities” based on the obligations and underlying assets of those pooled loans are sold in order to provide investors with an ostensibly more predictable return from an inherently diversified – i.e., reduced – risk.

## 2 Background

The current consensus in the monetary economics literature is that the high rate of financial innovation in the past four decades has decreased the U.S. Federal Reserve Bank's ("Fed") ability to affect the real economy by using its policy tools (commonly referred to as the monetary transmission mechanism). There are three channels through which monetary policy is thought to affect the real economy. First, there is the traditional *interest rate channel*: An increase in the interest rate (i.e., contractionary monetary policy) increases the cost of capital for firms, which will therefore reduce their investments, thus slowing down growth in the economy. The second and third channel work through the supply and demand side for bank loans, respectively, and are sometimes lumped together as the *credit channel*, although they may be better understood separately: the supply of bank loans is affected via the *lending channel* and the demand for bank loans via the (borrower) *balance sheet channel*.

The *lending channel* assumes that contractionary monetary policy, implemented by sales of Treasury bills by the Fed, reduces banks' deposit base, and – if replacing these deposits is difficult for banks – reduces the supply of loans that banks extend. However, a majority of empirical studies in the recent literature investigating the lending channel find that financial development and innovation decreases banks' cost of generating loanable funds (i.e., makes it easier for banks to replace "lost" deposits), thereby weakening the lending channel and limiting the overall scope and effectiveness of monetary policy (see [Kashyap and Stein, 2000](#); [Cetorelli and Goldberg, 2009](#); [Loutskina and Strahan, 2009](#)).

The literature on the *balance sheet channel*, on the other hand, is limited and contradictory, and is therefore the focus of our proposed Summer FRG project. The balance sheet channel assumes that an increase in interest rates (via contractionary monetary policy) makes debt service for firms more costly while simultaneously lowering those firms' collateral value, which in combination lowers their demand for bank loans. [Ashcraft and Campello \(2007\)](#) find some supportive evidence for the balance sheet channel by focusing on the link between state business cycles and (relative) loan growth of subsidiaries of bank holding companies in the same state. Other studies investigate the effect of securitization on the risk-taking behavior of banks and have produced conflicting results. For example, some studies predict and others empirically find that securitization decreases

the riskiness of a bank's portfolio by limiting its exposure to bad loans (e.g. [Greenbaum and Thakor, 1987](#); [Altunbas et al., 2009](#)). To the extent that the amount of bad loans is affected by economic conditions, this would suggest that banks become less sensitive to economic fluctuations. In other words, if banks are able to sell their loans and the associated risk (of loan default), their incentives to monitor borrowers and borrower balance sheets carefully are diminished. However, other recent empirical studies find that factors such as the retention of credit risk of securitized assets (through recourse arrangements) and the effect of asset prices on banks' balance sheets generate a positive relationship between securitization and the riskiness of banks' balance sheets (see [Uzun and Webb, 2007](#); [Adrian and Shin, 2009, 2010](#); [Sarkisyan et al., 2009](#)). These studies therefore suggest that securitization – by saddling banks with higher risk on their balance sheet – makes banks more sensitive to economic conditions that affect credit risk and asset prices. Resolving these two competing hypotheses will answer the question whether the effectiveness of all channels of the Fed's monetary policy is reduced by financial innovation, or if – as suggested by [Greenbaum and Thakor](#) and [Altunbas et al.](#) – banks can enjoy the benefits of financial innovation such as securitization without rendering monetary policy ineffective.

### 3 Contribution

In our research project, we expand on the previous literature on the balance sheet channel of monetary policy transmission in two important dimensions. First, in our paper “Securitization and the Balance Sheet Channel of Monetary Transmission”, we focus on the balance sheet channel and investigate how the strength of this channel is affected by asset-backed securitization. Although the opportunities that new financial instruments such as asset-backed securities provide for raising funds on the supply side of the financial market (i.e., the lending channel) are now well-known, to the best of our knowledge, it has not yet been adequately explored or understood how securitization may affect the balance sheet channel. Our findings show that the balance sheet channel is stronger for banks that securitize some of their assets. These findings suggest that the usual negative relationship between monetary policy effectiveness and financial innovation found in the previous literature (e.g., [Bernanke and Blinder, 1988](#)) may only be limited to some channels of monetary transmission, and may be reversed for the balance sheet channel. The central insight drawn from



these results is that the Fed's monetary policy has a larger effect on securitizing banks' sensitivity to economic conditions compared to banks that do not securitize their assets. The rapid growth observed in securitization activities in the past two decades highlights the economic significance of this finding and the importance of our investigation.

To date, our investigation of the relationship between securitization and the balance sheet channel has encountered several obstacles that serve to explain the scarce body of work regarding this relationship, despite its importance to academics, practitioners and policymakers. The first and most challenging of these obstacles is the separation of the lending channel from the balance sheet channel. Specifically, the lack of loan-level data makes it impossible to determine to what extent banks' decisions to alter their amount of lending are driven by banks' liquidity positions or by the strength of their borrowers' balance sheets. This drawback also raises an issue related to the choice of proxies that measure the importance of borrower balance sheets in loan deals. Second, although measures for the stance of monetary policy are available for a long time period, data on the amount of banks' securitized assets are only available for a relatively shorter time period. The third obstacle is the difficulty in measuring the effects of securitization on the balance sheet channel that are independent of other bank specific characteristics that may be correlated with the amount of securitization. For example, banks that securitize their assets are often considerably larger than banks that don't securitize. Finally, it is a challenge choosing whether to use securitization data at the level of the bank or at the level of the bank holding company (BHC) with which those banks are affiliated. Some studies suggest that using BHC level data would be better (see [Akhavain et al., 1997](#); [Berger et al., 1995, 2005](#); [Stiroh, 2000](#)), but bank level data could be more relevant if individual banks are independently deciding on the degree of securitization.

Although the severity of some of these issues demands a cautious interpretation of our results, we have taken several steps to address these concerns, enabling us to close a gap in the literature and to present the significant finding of a mostly positive relationship between securitization and the strength of the balance sheet channel. In measuring the strength of the balance sheet channel we follow the methodology of [Ashcraft and Campello \(2007\)](#) to control for the lending channel and compare the behavior of small banks that are affiliated with the same BHC. Under the assumption that banks affiliated with the same BHC have access to similar internal capital markets, we are able to shut down the lending channel and measure the strength of the balance sheet channel

independently. Furthermore, our focus on smaller banks is a critical feature of this methodology. Indeed, the strong ties that these banks have with local small businesses (see [Strahan and Weston, 1998](#)) is what allows us to capture the effect that local economic conditions, which are strongly related to the balance sheet strength of small businesses, may have on bank lending. It also allows us to determine how monetary policy could affect the sensitivity to the strength of balance sheets. The assumption we make here is that balance sheets are stronger (weaker) in a state that is experiencing an expansion (recession).

Our second, and potentially larger, contribution to the literature is to measure the balance sheet channel of monetary policy transmission directly by using loan-level data rather than using a proxy like the state business cycle (output gap). In our ongoing project “The Credit Channel of Monetary Transmission: Evidence from Loan-Level Data”, we match U.S. data on loans with firm (borrower) balance sheets and with characteristics of banks (lenders) to see how changes in borrower balance sheets affect the demand for bank loans – the balance sheet channel. This matching process will be a challenge due to the size of the respective data sets, but the resulting empirical work will represent important original research.

## 4 Conclusion

“Monetary Policy Effectiveness” will not just close important gaps in the literature, but also inform the discussion surrounding the financial crisis of 2007-8 – in particular the role played by asset-backed securities – through our focus on how asset securitization influences the effectiveness of monetary policy via bank lending behavior. Furthermore, we use loan-level data to investigate whether the balance sheets of borrowers matter in determining the equilibrium quantity of loans and, therefore, economic growth. A Summer FRG will allow me to fully immerse myself in this exciting area, meet our prospective publisher’s expectations, and – given the global integration of financial markets – enable me to translate our study’s ideas and approaches into broader issues related to global banking and international finance.

# **EXAMPLE**

**4**

[REDACTED] [REDACTED]

**Title: Phototoxicity of drugs and nanoparticles in the human eye**

[REDACTED]  
[REDACTED]  
[REDACTED]

**Abstract**

If awarded, a Faculty Research Grant would enable me to capitalize on a peer-reviewed invitation to conduct research this summer in collaboration with my two post-doctoral fellows (Albert Wielgus, Ph.D. and Baozhong Zhao, Ph.D) at the National Institutes of Environmental Health Sciences (NIEHS), a North Carolina located unit of the National Institute of Health (NIH). Fordham's support is critical for five reasons:

- (i) I do not have laboratory space at Fordham, and this type of collaboration is essential if I am to access the multimillion dollar photophysical equipment and human ocular tissues my research requires;
- (ii) Due to the untimely death of the PI (Colin Chignell, July 2008) at the NIEHS' Photobiology laboratory, I have become the scientific head of this laboratory, requiring my presence as current titular PI for the successful completion of the projects that are the subject of this proposal;
- (iii) Due to Federal budget cuts, in 2010 the NIEHS will not be able to cover my costs of travel and stay at their facility as in past years, and I will also have to cover some of my cost of supplies;
- (iv) The NIEHS has, however, donated HPLC [High Pressure Liquid Chromatogram] equipment with fluorescence detectors (valued at \$20,000) to Fordham's Department of

Natural Sciences through my initiative, the cost for packing and shipping of which would also be covered under this grant;

(v) In addition to the two scholarly articles I intend to produce from this summer's research for submission [Toxicology and Applied Pharmacology, Photochemistry Phtobiology ]the NIEHS also anticipates making external grants available in my area of "nanosafety" for 2011-12, for which my work at their facility this summer will place me in an advantageous position.

### **Background**

Everyone over the age of 65 is susceptible to developing cataracts and macular degeneration. In the next 30 years over 24 % of the population of the United States will be over the age of 65 and are therefore at risk for these blinding disorders. Although sight may be restored by an operation to remove cataracts, there is currently no effective treatment for retinal or macular degeneration. My ongoing research is to identify environmental risk factors that lead to these age-related blinding diseases and examine ways to prevent such damage. In addition to environmental hazards, there are dyes, drugs, over the counter medications and nanoparticles that can dramatically enhance phototoxic reactions in the human eye leading to early development (i.e., at 40 years old) of cataracts and macular or retinal degeneration.

The NIEHS facility at which I have been conducting this research for the past 12 years is a multidisciplinary lab that allows me access to multimillion dollar laser and photochemical equipment. During the summer of 2008 and my Spring 2009 Faculty Fellowship I developed at NIEHS an *in vitro* system using human lens epithelial cells to define phototoxic properties of nanoparticles with potential to damage the human lens.

**(Phototoxicity and cytotoxicity of fullerol in human lens epithelial cells. Roberts JE, Wielgus AR, Boyes WK, Andley U, Chignell CF. Toxicology and Applied Pharmacology 2008 Apr 1;228(1):49-58.**

In previous years at NIEHS, I have proven that ocular exposure to UVA and UVB (lens) or Visible blue light (430 nm) (retina) alone or in the presence of drugs or herbs ( St. John's Wort) increases the human risk for developing cataracts and retinal degeneraton

**(Wielgus AR, Chignell CF, Miller DS, Van Houten B, Meyer J, Hu DN, Roberts JE. Phototoxicity in Human Retinal Epithelial Cells Promoted by Hypericin, a Component of St. John's Wort. Photochem Photobiol. (2007) 83(3):706-13)**

Summer 2010 I will investigate how nanoparticles (fullerols), used for drug delivery to the eye, may cause very early retinal degeneration. I am also examining the potential for fluoroquinolone (i.e. cipro) antibiotics to cause early damage to the human lens. The final purpose of my research is to remove, modify or quench these toxic agents in order to prevent the formation of early or late onset cataracts and macular degeneration. These *in vitro* experiments are currently in progress and are expected to be completed by September 2010.

### **Contribution**

Cataracts and age-related macular degeneration (AMD) are the most common causes of visual impairment in the elderly. Although there is a genetic component to these blinding disorders, clinical and epidemiology studies have confirmed that environmental hazards (sunlight, phototoxic drugs and herbal medications) are major risk factors in initiating cataracts and AMD. All of these environmental hazards induce the formation of free radicals and reactive oxygen species (ROS) in the eye. The aged eye has limited protection against

free radicals and ROS, thus environmental hazards can put older people at severe risk of serious ocular damage. I have modeled this synergistic effect between environmental hazards and age by studying the interaction of sunlight with endogenous photoactive substances (xanthurenic acid, lipofuscin, A2E) whose production increases dramatically with age.

I have previously defined the damage to human ocular tissues induced by the endogenous agents. I am now defining the ocular damage induced by exogenous agents using *in vitro* and photophysical techniques. The ultimate goal is to develop appropriate strategies to ameliorate or prevent age related, environmental, drug and nanoparticle induced cataracts and macular or retinal degeneration.

Specifically, before attempting to define the effect of photoprocesses on biological systems, it is essential to get precise information about wavelength, photochemical yields/reaction rates, and biological targets. Mechanisms may be further defined through examination of the effects on the target molecules in live cells. This knowledge will facilitate risk assessment in humans and promote development of more sensitive ways to measure and screen for damage in individuals and in populations. Furthermore, once the mechanisms of damage are known, phototoxic agents can be modified to inhibit detrimental processes or to improve the efficacy of beneficial reactions.

Consequently, my research involves a multidisciplinary approach:

**1) *in vitro*:**

**i. Models for Cataract formation Human Lens Epithelial Cells:**

An *in vitro* model system (using human lens epithelial cells from human eyes) has been set up to determine potential phototoxicity of fluoroquinolone antibiotics and demonstrate specific damage end points (oxidative DNA damage, lipid peroxidation, apoptosis/necrosis, membrane damage, mitochondrial damage).





[REDACTED]

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Cataracts and age-related macular degeneration (AMD) are the most common causes of visual impairment in the elderly. In the next 30 years over 24 % of the population of the United States will be over the age of 65 and are therefore at risk for these blinding disorders. As stated at the outset of this proposal, not only will a Fordham Faculty Research Grant prove pivotal in supporting my longstanding line of research during a critical juncture in its funding, bring needed resources to the University, and provide a platform for future external support, it will prevent interruption of work that is already proving integral to our fight to preserve the sight of millions of Americans.

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