Factors Influencing Retirement Decision Making for Louisiana State Government Employees

Osama A. Amous
FACTORS INFLUENCING RETIREMENT DECISION MAKING FOR LOUISIANA STATE GOVERNMENT EMPLOYEES

A Dissertation

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by

Osama A. Amous
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M.S in Industrial Engineering, Louisiana State University 2019
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I would like to dedicate this dissertation to my deceased parents, Abdellatif Amous and Mahdiea Attili, my wife Fatima Ahmad, my two sons Nour Amous, and Ahmad Amous, and my two daughters Danya Amous and Ayah Amous.
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DEFINITION OF TERMS

- **AARP.** American Association of Retired Persons

- **Baby Boomers.** A person born between 1946-1964 (Census Bureau, 2015)

- **Benefits Calculator.** When calculating a benefit, LASERS uses three factors. [Member Final Average Compensation multiplied by Accrual Rate multiplied by Years of Service Credit].


- **COLA.** Cost of living adjustments

- **DB.** Defined Benefits. It is an employer-sponsored retirement benefit that provides workers, upon attainment of designated age and service thresholds, with a monthly benefit based on the employee's salary and length of service.

- **DC.** Defined Contributions. 401(k) plans and IRAs are defined contribution (DC) plans used by many private businesses to help employees save for retirement, in addition to Social Security benefits. TRSL (2019).

- **DROP.** Deferred Retirement Option Plan

- **GPO.** Government Pension Offset. Covers people who receive spousal or survivor benefits in addition to none covered government pension. AARP (2018).

- **Hybrid Public Pension Plan.** A retirement plan that combines some defined benefit pension plan and a defined contribution plan with an individual retirement savings account to which the employee and employer contribute money — the PEW Trust
• **IBO.** Initial Benefit Option.

• **IRS.** Internal Revenue Services

• **LASERS.** Louisiana State Employees Retirement System.

• **Longevity.** living for a long time

• **LSERS.** Louisiana School Employees Retirement System.

• **Millennials.** A person born between 1982-2004 (Strauss and Howe, 2000)

• **NASRA.** National Association of State Retirement Administrators

• **NIRS.** National Institute on Retirement Security.

• **PREP.** Pre- Pre-Retirement Education Program.

• **Retirement Age.** Retirement age is the age at which a worker may become eligible to receive retirement benefits. It could begin at age 62 or as late as age 70.

  Types of Retirement: (1) full retirement, (2) early retirement.

• **Social Security Act.** A law enacted by the Senate and House of Representatives of the United States of America to provide assistance to the following: old-age benefits for laborers; aid for dependent mothers and children; aid for the disabled; victims of industrial accidents; and benefits for unemployment insurance (SSA, 1935).

• **Subjective Norms.** The perceived social pressure to perform or not to perform the behavior by the individual. Ajzen (1991)

• **TRSL.** Teachers Retirement System of Louisiana.

• **WEP.** Windfall Elimination Provision effects only Social Security retirement benefits.
Public pension members continually face factors affecting their decision to retire in the changing American society. Workers are living longer and need more medical care with better retirement benefits. For Louisiana public employees specifically, no prior studies have examined the factors affecting workers’ decision to retire nor evaluated the factors impacting workers’ decision.

This multiphase study aimed to identify factors and evaluate the decision-making process that enables Louisianans to retire happily and satisfied with a guaranteed income, and to examine millennials’ decision-making process. In the initial phase, ten active and retired male and female participants answered questions in-person, leading to the development of two written and online questionnaires-based studies, one for active and another for retired state employees. The independent variables for the questionnaires were 6 categories: Demographic Information; Social and Family Life; Technology and Barriers; Environmental, Traffic, and Crisis’s Effect; Economical and Financial Impacts, and Satisfaction with Life. The written surveys were given to active and retired employees in person when attending seminars conducted by Louisiana State Employees Retirement System (LASERS), and the online surveys were sent via email to active and retired employees by Louisiana School Employees Retirement Systems (LSERS) Retirement Systems.

Of the 231 surveys from active and retired participants returned, 209 (90%) were valid and used in this research. The five-point Likert scale was used to convert the data for Z-test and Logistic Regression analyses. Analysis indicates that 58% of Louisiana families have a history of longevity ranging between 75-109 years. The respondents indicated that they were concerned because of current economic conditions, and the most significant
factor found was how likely the participants felt a complicated retirement system is to occur for future generations (millennials). Both groups plan to keep working until they receive the maximum benefits. Eighty-seven percent of active state government employees indicated that years of service credit and age affect their decision to retire. Active workers planned to continue working until they meet eligibility to retire with health care benefits. All respondents indicated that they did/will consult with their spouses regarding their retirement plans, and all retired respondents who had applied for and were receiving social security benefits were satisfied with their retirement.
CHAPTER 1. INTRODUCTION

1.1 Background

Retirement decision-making is essential in the changing American society, regardless of where a person worked or what position of employment the person held. In making the decision to retire happily and satisfied with a guaranteed income, an individual needs a planned roadmap for retirement. According to the Social Security Administration (SSA, 2018), about 63 million federal government employees receive Social Security benefits.

According to United States Office of Personnel Management (USOMP) (2017), 325,350 employees in the Federal Employees Retirement System (FERS) retired in the last ten fiscal years. In the State of Louisiana, 47,000 retirees receive monthly benefits from the Louisiana State Employees Retirement System (LASERS) alone, not including other Louisiana retirement pensions. Figure 1.1 shows the number of active and retired members reported from 2004 to 2018 (LASERS, 2019). The highest number of active employees, 64,149, occurred in 2004. The highest number of retired employees receiving monthly benefits from Louisiana State Employees Retirement System (LASERS), 48,679, occurred in 2018, an 18% increase compared with 2004 figures.

While this study focuses primarily on Louisiana public sector employees, it is clear that no matter from where they retired (local, state, or federal government), all retirees have raised the same question as to when would be a good time to retire and how secure their retirement will be. For the aging active employees, or employees nearing their eligibility for retirement, planning for retirement takes a lot of thoughts, calculation, and courage. Many questions and concerns arise, such as the best time to retire; secureness of financial
independence; the psychological effects; health care coverage and plans; and which retirement plan to choose. Often, the same concerns were cited by future generations (millennials). All questions are valid and vital. If there are not enough savings, reasonable investment income, and pension income to cover living expenses and spending habits, adjustments must be planned.

On the other hand, planning can lead to an extra cushioned lifestyle in which the retiree no longer has to work and will have more than an ample income to live happily satisfied. However, at the same time, many active employees spend more time planning vacations rather than planning a realistic and robust retirement security plan to provide for their future needs. Some start thinking about retirement at the start of their career.

One important retirement-related question is “When is the right time to decide for a new phase of my life?” For some state government employees, retirement may simply mean leaving their active working life only to continue working in a different field, or travel, or take care of the grandchildren. Nevertheless, for others, retirement means to never, ever work again and to relax and enjoy life. What makes a person decide to retire? In the academic field, college professors often are allowed to continue teaching until they are 80 years of age or older before making the decision to retire, as long as they perform their duties accordingly. Those in a different profession, such as law enforcement personnel, can retire earlier through various plans. Many have no choice other than to retire early to take care of a family situation or due to other factors (social, political, health, technology, financing, and many more). In fact, some members may decide to accept a lump-sum payment to pay off debts when selecting an Initial Benefit Option retirement plan (IBO), or they may have no choice but to take early retirement due to a family, personal, or administrative issue, or due to government regulation changes.
In April 2013, the House and Senate of the State of Louisiana agreed to privatize nine LSU-run hospitals and their clinics (Deslatte, 2017). In most instances, the management company of nearby hospitals took over operations. The employees had a choice to find another job with a Louisiana state agency to benefit from their retirement plans or apply for a job at the same hospital where they work — thereby entering the private sector. Thus, if they went back to work for the same hospital after the privatization, they lost benefits from the state retirement system. Therefore, some who had 20 years of service, elected to take the option of early retirement with reduced benefits.

Some state government employees have other reasons for retiring, like health or quality of life for families wanting to spend more time with a spouse or an ill family member(s). Others never use their vacation time and keep saving the money only to become stricken with a major illness. How does this decision benefit them and their families? The National Institute on Retirement Security (NIRS) released a report on February 26, 2019, about the American public’s views on pensions and retirement security. The findings indicate that there is a high level of American retirement insecurity. The study shows that 83% of Americans are concerned about the ability to retire in the current economic environment since they cannot achieve financial security in retirement (American Association of Retired Persons, 2009). Americans also believe retirement is a responsibility shared among the individual, government, and employer. Furthermore, 71% of Americans believe that, compared to previous generations, it is now harder to prepare for retirement; fifty-one percent indicate that today’s retirement is less promising than that which was available to the past generations (National Institute on Retirement Security, 2019).
According to the Pew Research Center (2011), 10,000 baby boomers (individuals born between 1946-1964) turn 65 every single day in the United States. The average American retirement age is 63, and the life expectancy for retirees is about 85 years. That means Americans would plan to spend 22 years in retirement. The AARP suggests a retirement income nest egg, but the buying power varies drastically depending on where a person lives. The answer to "How long will my money last in retirement?" depends on the state in which a retired person lives. According to an annual report by Louisiana State Civil Service (2017), by the close of Fiscal Year 2016-2017, the State of Louisiana employed 70,953 civil servants who would have to answer that question.

One common research question is related to political affiliation. This was done in a survey for active and retired employees of the Louisiana State Employees' Retirement Systems (LASERS, 2018). There was not enough evidence to conclude that there was a difference of opinions on main issues between party affiliations based on gender. Also, it was concluded 87% of active state government employees indicated that years of service credit affect their decision to retire.

The purpose of this research study was to understand, explore, and analyze the determining factors involved in the decision of Louisiana state government employees to retire with secure benefits considering their age and eligible service credit. This study also aimed to determine the level of satisfaction influencing retirement decision-making by the Louisiana state employees, millennials in particular.
Figure 1.1  
Active and Retired members by LASERS 
Source: Louisiana State Employees Retirement System (LASERS), Public Plan Data (2019)
1.2 Rationale

When would be the right time to begin a new phase of life? For some public pension employees, retirement may simply mean leaving their active working lives to continue working in a different field, to travel, or to care for their grandchildren. For others, retirement means never working again, and they call it a time to relax (quit) and enjoy life. Retirement means something in between for others. In the seventies, eighties, and nineties, retirement meant stepping away from work. Today, more retirees are earning supplemental income by working in some capacity. A study conducted by the National Study of the Changing Workforce (NSCW, 2017) indicates that one in five retirees 50 years or older have a supplemental retirement job.

Eventually, a person will retire, assuming the individual remains in the workforce until retirement eligibility. How many issues must a person consider when making the decision to retire? Price and Balaswamy (2009) examined the personal and psychosocial predictors of women’s retirement satisfaction and found that the most significant predictors are self-esteem, mastery, emotional support, and ethnicity. If workforce individuals are active socially and personally within the community as part of their job, the psychological effect on the changes in their lifestyle upon retirement must be considered. There would be no more travel associated with the profession, as well as possible loss of social status and community recognition.

In the academic field, college professors often are allowed to continue teaching until they are eighty years of age or older before making the decision to retire given they perform their duties appropriately. Those in a different profession, such as law enforcement personnel, can retire earlier through different retirement plans. Others may have no choice but to retire early to take care of a family situation or personal administrative issues,
government regulation changes, politics, health care costs, difficulty with technology, and financial satisfaction.

One important choice is the specific plan to select for retirement. Plan options may allow an employee to choose a reduced lifetime annuity along with a partial cash lump sum to make purchases or to pay off debts. For LASERS members, this can be the Initial Benefit Option (IBO) retirement plan. A LASERS member may also build a cash nest egg through the Deferred Retirement Option Plan (DROP). Also, members may choose to select the maximum benefit available for them under their plan or to select a reduced retirement that enables them to leave a lifetime benefit.

The public sector contains a variety of plan designs, including “hybrid” plans. Ronald Snell (2012) reported from the National Conference of State Legislators that one of the cash balance plans mentioned is a primary "hybrid" plan that combines elements of a Defined Contribution plan (DC) and the Defined Benefit plan (DB) into one plan. The Louisiana State Employees’ Retirement System (LASERS) currently offers a defined benefit (DB) plan. The benefit is guaranteed for life and is based on a defined calculation. Benefits are calculated by multiplying (Years of Service x Final Average Compensation x Accrual Rate). It is important to note that Social Security is the DB plan available to employees in the private and public sector.

Any money saved in a member’s deferred compensation plan (457(b) of the Internal Revenue Code of 1986 or 457(b) plan) can be used as a supplement to the monthly benefit upon retirement. With an average annual rank-and-file benefit of about $26,000, many members of the system need additional funds when they retire to supplement their LASERS benefit (IRS, 2017).
Any rank-and-file member of LASERS whose first employment began on or before June 30, 2006, pays a contribution rate of 7.5% of salary, which is deducted from their paycheck and transferred from the employer to the LASERS trust. Employee contribution, along with employer contributions and investment earns, is used to fund retiree benefits. Those LASERS members employed on or after July 1, 2006, have a contribution rate of 8%.

For a full-time employee, service credit is earned and is calculated by taking actual earnings for a year and dividing it by the member’s yearly base salary. Service credit is rounded up to the nearest tenth of a percent. For example, if a member earns .9632 years of service credit, it is rounded up to 1.00 for that year. This figure, when multiplied by Final Average Compensation and accrual rate, becomes the member’s annual expected retirement benefit. A member cannot receive more than one year of service credit for any calendar year. If a member has service credits in more than one state, municipal, or parochial retirement system in Louisiana, that member may apply for a reciprocal recognition or an actuarial transfer of service credit. A rank-and-file member who receives benefits from the Louisiana State Employees Retirement System (LASERS) and was hired on or before June 30, 2006, will become eligible for retirement upon reaching one of several criteria (Table 1.1.)

Table 1.1. Louisiana Active and Retired Average Age and Annual Benefits

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Years/Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Member average age</td>
<td>45.4</td>
<td></td>
</tr>
<tr>
<td>Active Member Years of Service</td>
<td>10.9</td>
<td></td>
</tr>
<tr>
<td>Average Annual Salary</td>
<td>$45,900</td>
<td></td>
</tr>
<tr>
<td>Retired Average Age</td>
<td>69.9</td>
<td></td>
</tr>
<tr>
<td>Retired Average Annual Benefit</td>
<td>$25,067</td>
<td></td>
</tr>
</tbody>
</table>
A review of the literature shows that most research has examined the psychological effect on retirees in general. However, no extant research examines the factors influencing Louisiana State Government employees to make a decision to retire.

1.3 Research Objectives

Public pension members always face factors affecting their decision to retire. Workforces are living longer and need more medical care with the best retirement benefits. For Louisiana public employees specifically, no prior research has evaluated whether factors such as social, traffic, politics, health, technology, finances, and working conditions have impacted their decision to retire. Furthermore, previous research has not explored the trend of retirement age and eligible service credits that public employees retired with and their satisfaction with life factors, pension systems, and payment plans.

The objective of this research study was to determine and analyze the factors and influences that affect Louisiana state government employees' retirement decision-making. The United States Census Bureau (2017) reported that Louisiana’s population increased by 3.3% from April 2010 to July 2017. However, further reports from the United States Census Bureau (2018) show that the population decreased by 10,840 from July 2017 to July 2018.

This is an exploratory study with qualitative and quantitative measures. Since we have a factually established population, the research questions of this study were to explore when and why public pension recipients (mainly Louisiana state employees) decided to take the leap to retire and at what age with eligible service credits as of June 30, 2018 (see the Actuarial Valuation for Louisiana state employees in Table 1.2). To achieve this study’s objectives, we needed to determine the factors that influence the decision-making for retirement. Such independent variables included social and family life; habits; demographics; economic impacts; psychological living effect (such as traveling to
conferences or the loss of status and recognition); technological impacts; healthcare costs; political consequences locally or abroad; crisis effects (human crisis, or natural disaster); and life satisfaction.

The aforementioned retirement satisfaction factors influence retirement decision-making for the State of Louisiana government employees. Currently, making such decisions is difficult. This research is anticipated to stimulate the awareness of the need for a stable retirement benefit and therefore provide a stable retirement benefit, particularly for millennials.

<table>
<thead>
<tr>
<th>Years of Service</th>
<th>Age Eligibility</th>
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<tbody>
<tr>
<td>1</td>
<td>30</td>
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<tr>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
</tr>
</tbody>
</table>
CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

This chapter’s literature review examines the effects different factors have on workforces’ decision to retire at certain age and on their retirement (attitude) satisfaction. The literature review is presented in two sections: (1) social norm influences studies related to factors contributing to making that decision, and (2) subjective influences studies that analyze the retirement satisfaction predictors supported by other related factors.

The purpose of this section is to understand and identify the related factors associated with retirement decision making.

2.2 Social Norms Influences Studies

This section reviews the various social influences studies, which explore the work-related factors associated with retirement decision-making, and it emphasizes the relationship between social norms and retirement decision-making.

In addition to positive changes in lifestyle, Floyd (1992) explained that for the elderly, retirement, as a major life alteration, can be the source of many negative experiences, such as loneliness, anxiety, and sometimes even psychological disorders. Following Floyd’s findings, Settersten (1998) examined the changes of transition to retirement as a set of social processes. Data samples were drawn from 319 adults from the Chicago area. The findings indicated that, in about half of the respondents, age was considered an irrelevant dimension for both men and women.

Entering the 2000s eras, Greller and Richtermeyer (2006) examined the effects of social factors on retirement and late career decisions. From a sample of finance and accounting professionals between the ages of 22 and 70, the study found that age was not a
significant factor. Greller et al. (2007) defined aging as a multidimensional process that is
difficult to measure in one single definition and listed it in two groups: (1) context age
measures and (2) person age measures.

Inspiring further investigation, Peeters and Emmerik (2008) reviewed an
introduction to the work and well-being of older workers, focusing on an individual’s
capabilities and opportunities instead of stereotyping them by age, but this leads to the
question, “When is an employee considered to be an ‘older’ worker?” (Peeters and
Emmerik, 2008). Additionally, Price (2009) discovered that there is a large body of research
on factors which may affect retirement satisfaction. The study by Price (2009) indicates that
in the private sector, health and wealth are the most important predictors.

The growth of the retired population makes retirement aging a significant issue.
Schwertha et al. (2011) predicted that 24% of the United States workforce in 2018 would
be at least 55 years old, but the U. S. Bureau of Labor Statistics (BLS) (2017) projects that
by 2024, the labor force will grow to about 164 million people. That number includes about
41 million people who will be ages 55 and older—of whom about 13 million are expected
to be ages 65 and older. Tackling another angle, Depergola and Manuti (2013) selected a
group of workers aged 45 years or older approaching retirement. From this four-focus group,
there was a clear idea on the meaning of work, and the group’s attitude about retirement was
primarily determined by the positive or negative attitude they had about their jobs while
aging.

Research results indicate differences between the workers who were about to retire
and those who were far from retirement. Participants attributed a different meaning to work
experience depending on how they imagined themselves as retired people. The selected
group of workers studied by Depergola and Manuti (2013) viewed their retirement
experience favorably as a pleasant break from work and a time for self and family. However, Philip Taylor (2013) believes the potentially important factor in the shift toward later age of retirement, mainly for men in North America, has been retirement income insecurity brought on in part by the change from defined benefits to a defined contribution work pension.

2.3 Subjective Influences: Environmental, Technology, and Financial Studies

2.3.1 Environmental – Traffic Factors

Wang et al. (2017) examined the new system of health consciousness in elderly Chinese migrant workers as it relates to their preferred location after retirement. These workers migrated fairly early before reaching retirement age, and the selection of their retirement location was affected by significant rural-urban disparities in medical insurance and services, pension, environment management, and public education. China has a three-tiered rural medical health service network with county hospitals as health centers and is responsible for offering hospitalization. It was believed by Wang et al. (2017) that retirees around the globe prefer aging-in-place, spending early retirement in the familiar areas “in place,” i.e., where they live at the time of retirement.

Research has examined retirement decisions for other immigrant communities, such as Latino communities. Krogstad and Lopez (2015) believe that the U.S.’s Latino population reached a high of 55.4 million in 2014. The Pew Research Center (2014) estimates that the undocumented sector expanded to 11.4 million, a number later reported by Passel and Cohn (2016). NBC News (2014) estimated that 850,000 who were over the age of 55 and 150,000 who were over the age of 65 were denied government retirement benefits. Torres et al. (2016) studied elderly undocumented Latinos and their retirement strategies in the United States. The researchers asked participants, who are grouped by age, if they are considering the idea of residing in the United States or moving to their native
country. The group under forty-five wished to reside in the United States upon retirement. However, the people the group aged forty-nine years and over planned to move back to their native country when retired. Kramer and Pfaffenbach (2015) examined relocation upon retirement in nine German cities, asking whether participants have a potential to move upon retirement. The analysis shows a strong satisfaction with the resident’s current housing situation. In addition, the results reflected the attachment with the place of residence and the surrounding neighborhood.

2.3.2 Technological Factors
The use of Information Technology (IT) can play an important role in leveraging productivity and efficiency in both public and private organizations. White-Baker et al. (2007) examined the impact of the transfer and use of technology in an organization and how social and cultural factors, such as gender, age, and level of education can influence the adoption of IT. Some studies (Ahuja, 2002; Ford et al., 1996; Rhodes, 1983; Woodfield, 2002) show how gender, age, and level of education affect IT adoption and usage, most of these studies were conducted within developed nations. In a study conducted in three nations characterized by differing cultural beliefs and norms, Gefen and Straub (1997) demonstrated that gender roles represent an important social factor influencing perceptions and behaviors with respect to IT adoption. Their results indicate that gender does have an effect on the IT adoption process and provide a rationale to investigate whether gender moderates the effects of predictor variables in existing models of IT adoption and usage in cross-culture research, which has found dramatic differences between the sexes. Gilroy and Desai (1986) found that females had significantly higher computer anxiety than males. However, the preliminary results of one survey of active and retired state government employees of Louisiana found no significant relationship—across gender, race, and age—between
technological changes and workers’ decision to retire.

The use of technology is essential to functional independence. Czaja et al. (2006) presented the finding from the Center for Research and Education on Aging and Technology Enhancement (CREATE). The sample included 1,204 individuals ranging in age from 18-91 years. The study was to measure the experience with technology, attitudes toward computers, and cognitive abilities. Findings indicate that older adults were less likely to use technology than younger adults were. A 2002 survey conducted by AARP suggested that users over the age of 65 are not computer savvy and have less confidence in their ability to use computers than younger people.

Jamal Ouadahi (2008) used qualitative analysis to review the factors associated with user acceptance of Information System (IS) in the public sector. His findings suggest that attitudes toward adopting IS are related to psychological characteristics of the potential adopters and open-minded interests in information and communication technology as well as the time remaining before retirement.

2.3.3 Economic and Financial Factors

Melbourne Mercer Global Pension Index (2017) highlighted that the United States’ retirement income system is comprised of the Social Security System with a progressive benefit formula based on lifetime earnings, adjusted to a current dollar basis.

The overall index value for the American system could be increased by raising the minimum pension for low-income participants. Other measures that could increase the overall index value include increasing the funding level of the Social Security program, providing incentives to delay retirement, and the rising labor-force participation at older ages. The American index value increased from 56.4 in 2016 to 57.8 in 2017, with a global grade of C, based on calculating the average of adequacy, sustainability, and integrity,
primarily due to the allowances for voluntary occupational pension plans. In comparison to the American index, the Australian Center for Financial Studies, Melbourne Mercer Global, (2017) graded Singapore’s overall average at 69.4 with a global grade of B.

A study by Zhao (2017) reviewed the impact of the 2007-2009 financial crisis on household consumption and labor supply in different age groups, pointing out the importance of housing wealth and its effect on retirement decisions. A model was built to demonstrate the role of endogenous retirement in crushing the housing price risk, and in building a comparison model with exogenous retirement, using the same age distribution for retirees. The study argued that endogenous retirement is a quantitatively important channel for self-insurance. The research indicates that the consumption rate is declining in both economies due to the increased mortality rate. It also suggests that the consumption growth decline in the endogenous retirement model is always smaller than in the exogenous retirement model.

Rey-Ares et al. (2016) examined the influence of social models on retirement savings that have threatened the sustainability of public pension systems and the negative impact of the economic and financial crises that some of the European countries are facing. It confirmed the significant influence of a country’s “social model” on the decision to invest in retirement accounts.

Disney and Emmerson (2005) evaluated the effect of the United Kingdom’s public pension reform on the financial well-being of current and future pensioners. They followed how progressive changes had affected the living standards of the past and current generations of pensioners and how they would likely affect future generations. The study found that the UK pension system was most generous to those reaching the state pension age around the year 2000, and the introduction of the state second pension and the pension
credit postpones this peak for individuals with lower incomes. Disney et al. (2005) considered how the “mix” of benefits, between contributory and income-tested sectors, could change the impact that this would have on incentives to save for retirement over time.

Most government systems have moved to a 5-year smoothing. Baret (2016) observed that the Indiana Public Retirement System is considering increasing its defined benefit asset-smoothing period to five years and cutting its amortization period to 20 years. According to a report presented to the board, the system lost 1.19% on its investments in January 2016 and had a -5.22% return in the seven months since the system’s fiscal year began July 1, 2016.

The financial investments service Moody Investment Services recently estimated that nationally, public pensions are underfunded by $4.4 trillion (Knowledge@Wharton radio show, 2018). Economist Olivia Mitchell (2018) stated, “Every year that goes by leads to more red ink and more concern because the state and local plans across the country, clearly have not done what they should have done to contribute the right amounts.” Economist Leora Friedberg (2018) believes that failure to adequately fund pensions is often an inherent problem in the system, and is only compounded. “There aren’t strong incentives for the governments to take care of this before it becomes a problem. After years of underfunding, some combination of taxpayers and state and local government workers bear the cost of that. We have already seen that going on for the last ten years. In addition to the pension overhang noted, many states also face health insurance obligations that they are not adequately funding. Elected leaders are forced to increase taxes or cut spending to balance budgets thrown out of whack by pension debt, and the public workers are often vilified in the process. Politically, that ends up easier than dealing with the funding.”

Cong et al. (2017) examined the path dependence in pension policy, using the state
of Florida’s local government as a case study of pension change among Defined Benefit (DB) plans. Since there was one annual change per plan, it was revealed that pension reforms are pervasive, requiring planning managers to deal with long-standing funding challenges based on the nature of the times, stock market plunges, the housing bubble, and low-interest rates. Louisiana has been a rare exception nationally in that the state of Louisiana has been fully funding the actuarially required contribution for state systems (as set forth in the valuation of each system) since the passage of a Constitutional amendment in 1987 requiring the financial soundness of the systems to be maintained (C. Rougeou, personal communication, March 6, 2019).

2.3.2 Life Satisfaction Factors

According to Toossi (2012), the workforce growth of the United States is in decline. By 2018, sixteen states had unemployment rates significantly lower than the U.S. rate of 4.0%. Six states and the District of Columbia had unemployment rates that were significantly higher. The lowest was in Hawaii with 2.1% and the highest in Alaska with 7.1%; Louisiana is 4.7%.

Social Security Cohort Life Expectancy (2016) examined the average life expectancy of baby boomers (born 1946-1964). Results indicate that the post-retirement life expectancy for those born in 1964 and turning 65 is 13.4 years for men and 17.9 years for women. For Generation X (born 1965-1984), the post-retirement life expectancy for those turning 65 is 15.3 additional years for men and 19.0 additional years for women. However, for Generation Y/Millennials (born 1982-2004), the post-retirement life expectancy for those turning 65 (born in 2004) is 18.4 additional years for men and 21.0 additional years for women.

In an actuarial experience study by Foster & Foster (2019), LASERS indicated that
the mortality experienced by the LASERS Plans for the 2013 to 2018 plan years does not reflect the trend of mortality improvement seen among the general population (p. 41).

Ardjmand et al. (2016) emphasized the effect of different retirement satisfaction predictors on men and women and the retirement satisfaction level among men and women. These predictors were health; wealth; smoking and drinking habits; education; faith; and income. Other important factors are the impact of health on activities of daily living (ADL); the frequency of activities; and the number of people in a household. A set of 858 retired men and 1179 retired women from a 2012 Health and Retirement Study database was chosen and analyzed for each gender to predict retirement satisfaction. Ardjmand et al. (2016) generated a decision tree that symbolizes retirement satisfaction and its predictors. The results demonstrate that health, age, smoking habits, income, and wealth are the most significant predictors for both genders, while for men, education also plays a vital role in retirement satisfaction.

Other research has examined the fear of growing old as a predictor for life satisfaction. Using a survey of 190 retired Canadians, Nguyen et al. (2013) examined the fear of growing old as a predictor of life satisfaction. Laslett (1987) used his Third Age Theory—a theory regarding an era after retirement—to study the relationship between fear of growing old and life satisfaction and found that the least feared predictor was a loss of retirement income for men and loss of earning power for women.

Floyd et al. (1992) considered the Retirement Satisfaction Inventory (RSI) scale on factor structure in a French sample from a previous study (Fouquereau et al. 1999) The scale was used only to measure similarity with the Floyed scale on the source of enjoyment and reasons for workers to retire.
2.4 Conclusion of Literature Review

The literature presented in the sections above represent the various concerns that public pension workers are faced with and the factors that may affect the decision-making process regarding retirement, particularly considering that the older workforce is living longer and needing more medical care with the best retirement benefits.

The United States Government Accountability Office (2007) reported that by 2030, the number of workers supporting each retiree is projected to be 2.2%. This is down from 3.3% in 2006. This demographic shift poses challenges to the economy, federal tax revenues, the nation’s old-age programs, and an individual’s financial security in retirement.

In summary, most of the existing studies evaluated the workforce factors affecting the decision to retire in Europe, Asia, and Canada. Very few studies focus on the public sector workforce in the United States in general, much less Louisiana specifically. The State of Louisiana, along with six other states, is not a Social Security participant. The seven states that are not Social Security participants are Alaska, Colorado, Louisiana, Maine, Massachusetts, Nevada, and Ohio. Few, if any of the public servants of those states are required to pay into the Social Security System. Table 2.1 contrasts the benefits paid in several states with social security systems verses several states with no social security system.
<table>
<thead>
<tr>
<th>State</th>
<th>Number of systems</th>
<th>Assets</th>
<th>Active numbers</th>
<th>Annuitants</th>
<th>Benefits paid</th>
<th>Employee Contribution</th>
<th>Employer Contributions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>(30)</td>
<td>$48,404,176</td>
<td>197527</td>
<td>181131</td>
<td>$4,455,370</td>
<td>$880,320</td>
<td>$2,697,641</td>
<td>7%</td>
</tr>
<tr>
<td>Colorado</td>
<td>(75)</td>
<td>$51,742,368</td>
<td>242,398</td>
<td>140,463</td>
<td>$4,922,908</td>
<td>$913,619</td>
<td>$1,732,256</td>
<td>3%</td>
</tr>
<tr>
<td>None-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennessee</td>
<td>(41)</td>
<td>$57,101,560</td>
<td>244,479</td>
<td>183,813</td>
<td>$3,131,456</td>
<td>$384,148</td>
<td>$1,357,652</td>
<td>3%</td>
</tr>
<tr>
<td>Virginia</td>
<td>(75)</td>
<td>$90,260,404</td>
<td>394,933</td>
<td>250,726</td>
<td>$5,604,736</td>
<td>$1,058,783</td>
<td>$1,732,256</td>
<td>3%</td>
</tr>
</tbody>
</table>
CHAPTER 3. METHODS AND PROCEDURES

3.1 Research Plan

The objective of this research was to determine and analyze the contributing factors (qualitative or quantitative) for the Louisiana State Government employee’s decision to retire. The significant dependent variable was decision-making, and the independent variable were various factors of the individual workforce, including service credit/eligibility, the economy, social, health, integration of technology, and more. In a continuum from the research objectives previously stated are:

a. To assess when and why Louisiana state government employees retire.

b. To validate the data as it was developed by interviewing active and retired members and evaluating data collected from LASERS and LSERS using manual and electronic surveys.

c. To find whether the current state employee public pension plan provides a realistic and secure retirement for millennials so that they do not work in state government just long enough to obtain experience to qualify them to work in the private sector or move to a different state to take advantage of Social Security benefits.

d. To achieve and assess the retirement decision-making factors of these surveys that were filled, validated, and evaluated through a logistic regression model. It is important when an active employee is nearing retirement that he or she has a thoughtful plan and makes good, sound financial decisions that have life-long impacts to prevent an uncertain, unsecure retirement. The study is comprised of two phases. The first study involved interviewing ten participants, and the second
phase involved developing the survey that was used to solicit and analyze the opinions of retired and active groups of state employees. The research steps are illustrated in Figure 3.1.

Figure 3.1. Steps of This Study’s Research Process

**Survey Development Study**

**A. Data collection and procedure.**

There are three major state retirement (pension) systems included:

1. Louisiana State Employees’ Retirement System (LASERS)
2. Teachers’ Retirement System of Louisiana (TRSL)
3. Louisiana School Employees’ Retirement System (LSERS)

**a. Data request.**
A data request form was submitted to two of the largest Louisiana Public Retirement Systems: LASERS and Teachers Retirement System of Louisiana (TRSL). A number of active and retired members of each system, average age, and years of services was requested. In addition, a data collection was requested from the National Institute on Retirement Security (NIRS). Preparation involved introducing surveys to active and retired members attending a statewide Pre-Retirement Education Program (PREP) seminar. Data collection details, data analysis, and the statistical analysis shall be presented in this chapter.

b. Survey planning and developing

A qualitative study narrative included interviews using In-Person Questionnaires for ten active female participants between the ages of 18 and 60 (Table 3.1). They were asked about their goals with questions regarding social, economic, healthcare, income, political, disasters, and integration of technology and how these factors affect their decision to (1) retire, (2) continue to work for Louisiana State Government, or (3) move to the private sector, which has benefits such as social security (a difficulty for millennials). From these interviews and the literature review, written and online surveys were finalized that would be distributed among 231 participants, specifically active and retired workforce employees at LASERS and LSERS.
Table 3.1: In-Person Questionnaires for Active and Retired Louisiana Employees

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Were you concerned about the economic condition affecting the ability for you to achieve a secure retirement?</td>
</tr>
<tr>
<td>2</td>
<td>Are you satisfied with your retirement?</td>
</tr>
<tr>
<td>3</td>
<td>Are you planning to leave the State of Louisiana?</td>
</tr>
<tr>
<td>4</td>
<td>Are you planning to leave the United States of America?</td>
</tr>
<tr>
<td>5</td>
<td>Were you concerned about losing your workplace status?</td>
</tr>
<tr>
<td>6</td>
<td>Did health concerns affect your decision to retire?</td>
</tr>
<tr>
<td>7</td>
<td>Did changes in technology affect your decision to retire?</td>
</tr>
<tr>
<td>8</td>
<td>Did traffic congestion influence your decision to retire?</td>
</tr>
<tr>
<td>9</td>
<td>Did the weather or Hurricane Katrina affect your decision to retire?</td>
</tr>
<tr>
<td>10</td>
<td>Did the Social Security Government Pension Offset (GPO) affect your decision to retire?</td>
</tr>
<tr>
<td>11</td>
<td>Did the Social Security Windfall Elimination Provision (WEP) affect your decision to retire?</td>
</tr>
<tr>
<td>12</td>
<td>What one factor mattered the most to your retirement decision?</td>
</tr>
<tr>
<td>13</td>
<td>Are you eligible to file for social security benefits?</td>
</tr>
<tr>
<td>14</td>
<td>Is your health satisfactory?</td>
</tr>
<tr>
<td>15</td>
<td>What affected your decision to retire?</td>
</tr>
</tbody>
</table>

**c. Participants.**

The study included online surveys that were completed by active and retired LSERS employees and written surveys conducted in the PREP seminar held by LASERS for active and retired employees. Two-hundred thirty-one members participated in the surveys, but 209 was valid.

Before data collection, the survey procedure and demands of completing the survey were explained to the participants. No consent form approval was needed according to the Louisiana State University Institutional Review Board (IRB). A copy of the form submitted
and the email correspondence is in Appendix A.

**Research Survey Design and Types**

Written and online surveys used for the experimental data collection were divided and grouped by different categories that cover demographic information, social and family life, technology and barriers, environmental, traffic, crisis effect, economic and financial impacts, and the satisfaction with life. Two custom-built surveys were used: one for actively working participants (Appendix B) and one for retired participants (Appendix C).

**Survey Validation**

The first step in validating the surveys was using the literature reviews, conference papers, and the researcher’s own experience. The second step was having ten active and retired male and female participants answer questions in-person, leading to the development of two written and online questionnaires-based studies, one for active and another for retired state employees. The independent variables for the questionnaires were 6 categories: Demographic Information; Social and Family Life; Technology and Barriers; Environmental, Traffic, and Crisis’s Effect; Economical and Financial Impacts, and Satisfaction with Life. The written surveys were given to active and retired employees in person when attending seminars conducted by Louisiana State Employees Retirement System (LASERS), and the online surveys were sent via email to active and retired employees by Louisiana School Employees Retirement Systems (LSERS) Retirement Systems.

In total, 231 surveys were received. Each was validated to determine if it was usable for the project and completed correctly with valid responses. Respondents must have completed the first page from both active and retired members, especially items like
the demographic information (i.e., Gender, Age, ethnicity/race, highest degree) (Appendix F, and figure F.1.) Of the 231 surveys received, 22 surveys were deemed invalid, leaving 209.

Data and Statistical Analysis

The survey research consisted of written and online questionnaire-based study surveys; questionnaires were used to measure the research variable constructs, and the survey measurement items for each construct is presented which includes each variable construct (e.g., attitude, subjective norm, perceived behavioral control, and intention to use technology). Such independent variables are social, environmental, political, health care, technology, and economics. As an example, the survey captured values for the three moderating demographic variables: gender, age, and level of education. The respondents indicated whether (1) female, (2) male or (3) another measured gender. Age was measured with six categories on an ordinal scale: (1) between 18-34 years, (2) 35-44 years, (3) 45-54 years, (4) 55-64 years, (5) 65-74 years, and (6) over 75 years. Level of education was measured using a nine-category ordinal scale: (1) 8th grade, (2) some high school, (3) high school graduate, (4) some college, (5) trade/technical/vocational training, (6) Associate Degree, (7) Bachelor’s Degree, (8) Master’s Degree, and (9) Doctorate Degree. The items comprising the constructs were of attitude, subjective norm, and perceived behavioral control.

Z-test and logistic regression hypotheses tests were used for analyzing the data, with the resulting coefficients used to make the regression models. Open source software and Microsoft Excel were used in the analyses. Logistic regression tests were compiled using the open source online software to find some correlation between the independent variables and the dependent variables. These tests gave the insight and necessary tools to build a model equation that would help for prediction and could check if the parameter had statistical
significance. These tests also made the model more accurate and useful.

**Z-test Analysis**

The survey data was exported to a spreadsheet using Excel and online software to perform further analysis of the data combined with experimental design and statistical analysis. In Excel, the function “if (or (c2=1, c2=2, c2=3)1, 0)” was used to get the results of “(1, 0).”

A z-test for one proportion is a hypothesis test that attempts to make a claim about the population proportion ($\rho$) for a certain population attribute. Regarding the independent and dependent variables considered for the statistical analysis, the following research hypotheses test was performed. The formula for one-sided test z-statistic is computed as follows when selecting the hypothesized population proportion $\rho_0$, the significance level $\alpha$, the sample proportion, and the sample size. This one proportion z-test calculator allows for computing the critical values, which are p-values for this one sample proportion test that will help with determining whether the sample data provides enough evidence to reject the null hypothesis:

$$Z = \frac{\bar{p} - \rho_0}{\sqrt{\rho_0(1-\rho_0)/n}}$$

**Logistic Regression Analysis**

Logistic regression is a statistical method for analyzing a dataset in which there are one or more independent variables that determine an outcome. The outcome is measured with a dichotomous variable (in which there are only two possible outcomes) (MEDCALC, 2019). In logistic regression, the dependent variable is binary or dichotomous: it only contains data coded as 1 (TRUE, success, Active, etc.) or 0 (FALSE, failure, non-Active - Retired, etc.).

A logistic regression model was performed using an open source online software to
generate a comparison between variables. Figure 3.2 shows the categories used for the research survey. The relationship between the dichotomous characteristic of interest (dependent variable = response or categorical outcome variable) and a set of independent (predictor or explanatory) variables found the effect of the categorical outcomes/results.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic</td>
<td>F1</td>
</tr>
<tr>
<td>Social &amp; Family Life</td>
<td>F2</td>
</tr>
<tr>
<td>Technology</td>
<td>F3</td>
</tr>
<tr>
<td>Environmental - Traffic</td>
<td>F4</td>
</tr>
<tr>
<td>Economic Impacts</td>
<td>F5</td>
</tr>
<tr>
<td>Satisfaction of Life</td>
<td>F6</td>
</tr>
</tbody>
</table>

Figure 3.2. Retirement Decision Factors

Logistic regression generates the coefficients (and its standard errors and significance levels) of a formula to predict a logit transformation of the probability of the presence of the
characteristic of interest:

The Model: \[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \ldots + \beta_k X_k \]

An open source application previously used by Pezzullo (2015) was used in this study to perform logistic regression, in which a dichotomous outcome is predicted by one or more variables (Appendix H). The program generated the coefficients of a prediction formula (and standard errors of estimate and significance levels) and odds ratios (with confidence intervals) (Appendix I).

3.2 Research Hypotheses

Members of LASERS attended all seminars (Retired/Active) and filled out the surveys, and members of LSRES who filled out online surveys about retirement decisions will be presented and analyzed by testing the research hypotheses. Since no previous study was found, we used the 50% as a dividing line to investigate:

Hypothesis 1: the effect of Tropical Storm/hurricane Katrina (2005) on the retirement decision
  ➢ \( H_{10} \): People affected by the tropical storm are 50% of the population
  ➢ \( H_{11} \): People affected by the tropical storm are less than 50% of the population

Hypothesis 2: the effect of traffic, congestion/delays on the retirement decision
  ➢ \( H_{20} \): People affected by traffic are 50% of the population
  ➢ \( H_{21} \): People affected by traffic are less than 50% of the population

Hypothesis 3: the possibility of having to sell their home to maintain a secure living.
  ➢ \( H_{30} \): People who possibly sell a home are 50% of the population
  ➢ \( H_{31} \): People who possibly sell a home are less than 50% of the population

Hypothesis 4: building enough financial security flexibility into their retirement plans
- **H4**: People who build enough financial security are 50% of the population
- **H41**: People who build enough financial security are greater than 50% of the population

**Hypothesis 5**: health care insurance through the office of group benefits
- **H50**: People who have health care are 50% of the population
- **H51**: People who have health care are greater than 50% of the population

**Hypothesis 6**: the years of service affected the decision to retire
- **H60**: People affected by years of service are 50% of the population
- **H61**: People affected by years of service are greater than 50% of the population

**Hypothesis 7**: the effect of merit increase freeze decision to retire
- **H70**: People affected by merit increase are 50% of the population
- **H71**: People affected by merit increase are less than 50% of the population

**Hypothesis 8**: applying for social security benefits
- **H80**: People who apply for social security are 50% of the population
- **H81**: People who apply for social security are greater than 50% of the population

**Hypothesis 9**: the effect of social security windfall elimination provision (WEP) on the retirement decision
- **H90**: People affected by WEP are 50% of the population
- **H91**: People affected by WEP are less than 50% of the population

**Hypothesis 10**: the effect of social security government pension offset (GPO) on the retirement decision
- **H100**: People affected by GPO are 50% of the population
- H10: people affected by GPO are less than 50% of the population

Hypothesis 11: satisfaction with retirement
- H110: People who agree with retirement satisfaction are 50% of the population
- H111: People who agree with retirement satisfaction are greater than 50% of the population

Hypothesis 12: the family history of longevity (live longer)
- H120: There is no significant effect on family history of longevity
- H121: There is a significant effect on family history of longevity

Hypothesis 13: the satisfaction with a health condition
- H130: There is no significant effect on satisfaction with the health condition
- H131: There is a significant effect on satisfaction with the health condition

Hypothesis 14: the planned retirement to-do list
- H140: There is no significant effect on retirement to-do list
- H141: There is a significant effect on retirement to-do list

Hypothesis 15: education on retirement options
- H150: There is no significant effect on education on retirement options
- H151: There is a significant effect on education on retirement options

Hypothesis 16: that someday you may sell your home for a secure environment
- H160: There is no significant effect on selling home for a secure environment
- H161: There is a significant effect on selling home for a secure environment

Hypothesis 17: the changes in technology affected the decision to retire
➢ H17\(_0\): There is no significant effect; technology did not affect the decision to retire
➢ H17\(_1\): There is a significant effect; technology did affect the decision to retire

Hypothesis 18: it will be harder for American Millennials to prepare for retirement
➢ H18\(_0\): There is no significant effect; it will be harder for American Millennials.
➢ H18\(_1\): There is a significant effect; it will be harder for American Millennials.

Hypothesis 19: the concern about the economic condition to achieve a secure retirement
➢ H19\(_0\): There is no significant effect on the economic condition
➢ H19\(_1\): There is a significant effect on the economic condition

Hypothesis 20: the satisfaction with retirement
➢ H20\(_0\): There is no significant effect on satisfaction with retirement
➢ H20\(_1\): There is a significant effect on satisfaction with retirement

Hypothesis 21: the consultation with the spouse on the retirement plan
➢ H21\(_0\): There is no significant effect on consultation with the spouse on the retirement plan
➢ H21\(_1\): There is a significant effect on consultation with the spouse on the retirement plan
CHAPTER 4. RESULTS AND FINDINGS

The data collected from the LASERS members who attended all seminars (Retired/Active) and completed the written surveys, as well as from members of LSRES who completed online surveys about retirement decisions, are presented and analyzed by testing the research hypotheses.

4.1 The Z-test Findings

The followings are the results for Hypotheses 1-11 using the Z-test analysis:

- Hypothesis 1: The effect of Tropical Storm/Hurricane Katrina on the decision to retire.

The results indicate that 7 active members out of 55 agree (“4”, “5”), which represents 12.7% (0.1272), and 48 out of 55 disagree (“1”, “2”, “3”), which represents 87.27% (0.8727). Using the z-test found z-statistics equal to (-5.259), which corresponds to a p-value less than the significance level of 0.05.

It is concluded that the null hypothesis $H_1$ is rejected. Therefore, there is enough evidence to attest that the population proportion of those who agree is less than 50% at a significance level of 0.05, which means more people disagree in their decision to retire due to Hurricane Katrina. The 95% confidence interval for $\rho$ is $0.039 < \rho < 0.215$. This means the percentage of active members who agree that Hurricane Katrina had an effect on their decision to retire is between 3.9% and 21.5%, which is very low (less than 50%).

- Hypothesis 2: The effect of traffic, congestion/delays on the decision to retire.

The results indicate that 20 active members out of 59 agree (“4”, “5”), which represents 33.89% (0.3389), and 39 out of 59 disagree (“1”, “2”, “3”) which represents
66.10% (0.6610). Using the z-test found Z-Statistics equal to (-2.474), which corresponds to a p-value less than the level of significance of 0.05.

It is concluded that the null hypothesis H20 is rejected. Therefore, there is enough evidence to claim that the population proportion \( \rho \) is less than 50% at the \( \alpha = 0.05 \) significance level, which means more people disagree in their decision to retire due to traffic congestion. The 95% confidence interval for \( \rho \) is 0.218 < \( \rho < 0.46 \). This means the percentage of active members who agree traffic congestion had an effect on their decision to retire is between 21.8% and 46.0%, which is low (less than 50%).

- Hypothesis 3: The possibility of having to sell their home to maintain a secure living environment.

The results indicate that ten retired members out of 71 agree (“4”, “5”), which represents 14.08% (0.1408), and 61 out of 71 disagree (“1”, “2”, “3”), which represents 85.91% (0.8591). Using the Z-test found Z-Statistics equal to (-6.053), which corresponds to a p-value less than the level of significance of 0.05.

It is concluded that the null hypothesis H30 is rejected. Therefore, there is enough evidence to claim that the population proportion \( \rho \) is less than 50% at the \( \alpha = 0.05 \) significance level, which means more people disagree in their concern that someday they may have to sell their home to maintain a secure environment. The 95% confidence interval for \( \rho \) is 0.06 < \( \rho < 0.222 \), which means the percentage of retired members who agree that someday they may have to sell their home is between 6% and 22.2%, which is less than 50%.

- Hypothesis 4: Building enough financial security flexibility into their retirement plans.
The results indicated that 48 retired members out of 69 agree (“4”, “5”), which represents 69.56% (0.6956), and 21 out of 69 disagree (“1”, “2”, “3”) which represents 30.43% (0.3043). Using the Z-test found Z-statistics equal to (3.25), which corresponds to a p-value less than the level of significance of 0.05.

It is concluded that the null hypothesis \( H_4 \) is rejected. Therefore, there is enough evidence to claim that the population proportion \( \rho \) is greater than 50% at \( \alpha = 0.05 \) significance level, which means fewer people disagree. They feel that they will have enough financial security flexibility built into their plans. The 95% confidence interval for \( \rho \) is 0.587 < \( \rho \) < 0.804, which means the percentage of retired members who agree they are concerned, as they feel that have enough financial security flexibility into their plans, is between 58.7% and 80.4% which is greater than 50%.

- Hypothesis 5: Health care insurance through the office of group benefits.

The results indicate that 63 members out of 72 agree (“4”, “5”), which represents 87.5% (0.875), and 9 out of 72 disagree (“1”, “2”, “3”), which represents 12.5% (0.125). Using the Z-test found Z-statistics equal to (6.364), which corresponds to a p-value less than the level of significance of \( \alpha = 0.05 \).

It is concluded that the null hypothesis \( H_5 \) is rejected. Therefore, there is enough evidence to claim that the population proportion of \( \rho \) is greater than 50% at \( \alpha = 0.05 \) significance level, which means fewer people disagree. They will have enough health care insurance through the office of group benefits. The 95% confidence interval for \( \rho \) is 0.799 < \( \rho \) < 0.951 which means the percentage who agree they have insurance through the office of group benefits is between 79.9% and 95.1%, which is greater than 50%.
- Hypothesis 6: The effect of years of service affected the decision to retire.

The results indicated that 56 members out of 72 agree (“4”, “5”), which represents 77.7% (0.777), and 16 out of 72 disagree (“1”, “2”, “3”), which represents 22.2% (0.222). Using the Z-test found Z-statistics equal to (4.714), which corresponds to a p-value less than the level of significance of $\alpha = 0.05$.

It is concluded that the null hypothesis $H_6$ is rejected. Therefore, there is enough evidence to claim that the population proportion of $\rho$ is greater than 50% at $\alpha = 0.05$ significance level, which means fewer people disagree. The years of service affected their decisions to retire. The 95% confidence interval for $\rho$ is $0.682 < \rho < 0.874$, which means the percentage who agree that years of service affected their decisions is between 68.2% and 87.4%, which is greater than 50%.

- Hypothesis 7: The effect of merit increase freeze on the decision to retire.

The results indicate that 25 members out of 72 agree (“4”, “5”), which represents 34.727% (0.3472), and 47 out of 72 disagree (“1”, “2”, “3”), which represents 65.23% (0.6523). Using the Z-test found Z-statistics equal to (-2.593), which corresponds to a p-value less than the level of significance of 0.05.

It is concluded that the null hypothesis $H_7$ is rejected. Therefore, there is enough evidence to claim that the population proportion of $\rho$ is greater than 50% at $\alpha = 0.05$ significance level, which means more people disagree in their concern that merit increase freezes affected their decision to retire. The 95% confidence interval for $\rho$ is: $0.237 < \rho < 0.457$, which means the percentage who disagree that merit increase freezes affected their decisions is between 23.7% and 45.70, which is lower than 50%.
- Hypothesis 8: The effect of applying for social security benefits on the decision to retire.

The results indicate that 46 members out of 72 agree (“4”, “5”), which represents 63.8% (0.6388), and 26 out of 72 disagree (“1”, “2”, “3”), which represents 36.1% (0.3611). Using the Z-test found Z-statistics equal to (2.2357), which corresponds to a p-value less than the level of significance of 0.05.

It is concluded that the null hypothesis $H_{80}$ is rejected. Therefore, there is enough evidence to claim that the population proportion of $\rho$ is greater than 50% at $\alpha = 0.05$ significance level. The 95% confidence interval for $\rho$ is $0.528 < \rho < 0.752$, which means the percentage who agree that applying for social security benefits affected their decisions is between 52.8% and 75.2%, which is higher than 50%.

- Hypothesis 9: The effect of social security windfall elimination provision (WEP) on the decision to retire.

The results indicated that 14 members out of 72 agree (“4”, “5”), which represents 19.4% (0.1944), and 58 out of 72 disagree (“1”, “2”, “3”), which represents 80.5% (0.805). Using the Z-test found Z-statistics equal to (-5.185), which corresponds to a p-value less than the level of significance of 0.05.

It is concluded that the null hypothesis $H_{90}$ is rejected. Therefore, there is enough evidence to claim that the population proportion of $\rho$ is less than 50% at $\alpha = 0.05$ significance level. The 95% confidence interval for $\rho$ is: $0.103 < \rho < 0.286$, which means the percentage who agree that social security windfall elimination provision (WEP) has an effect on their decision to retire is between 10.3% and 28.6, which is less 50%.

- Hypothesis 10: The effect of social security government pension offset (GPO) on the
decision to retire.

The results indicate that 14 members out of 72 agree (“4”, “5”), which represents 19.4% (0.1944), and 58 out of 72 disagree (“1”, “2”, “3”), which represents 80.5% (0.805). Using the Z-test found Z-statistics equal to (-5.185), which corresponds to a p-value less than the level of significance of 0.05.

It is concluded that the null hypothesis H10 is rejected. Therefore, there is enough evidence to claim that the population proportion of ρ is less than 50% at α = 0.05 significance level. The 95% confidence interval for ρ is: 0.103< ρ < 0.286, which means the percentage who agree that social security government pension offset (GPO) had an effect on the retirement decision is between 10.3% and 28.6, which is less 50%.

- Hypothesis 11: The satisfaction with retirement.

The results indicate that 65 members out of 72 agree (“4”, “5”), which represents 90.2% (0.9027), and 7 out of 72 disagree (“1”, “2”, “3”), which represents 9.7% (0.0972). Using the Z-test found Z-statistics equal to (6.835), which corresponds to a p-value less than the level of significance of 0.05.

It is concluded that the null hypothesis H11 is rejected. Therefore, there is enough evidence to claim that the population proportion of ρ is greater than 50% at α = 0.05 significance level. The 95% confidence interval for ρ is: 0.834< ρ < 0.971, which means the percentage who agree that they are satisfied with retirement is between 83.4% and 97.1, which is higher than 50%.
Table 4.1. Questions on Decision for Retirement, Z-Test for One Population Proportion
Popular Proportion (.5), Significance of Level (α) (.05), Sample Size (N) 55-72

<table>
<thead>
<tr>
<th>Questions on Decision For Retirement</th>
<th>Agree</th>
<th>Disagree</th>
<th>PP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Tropical Storms /Hurricane Katrina</td>
<td>12.72</td>
<td>87.28</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Traffic Congestion/delays</td>
<td>33.90</td>
<td>66.10</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Selling their house to maintain secure retirement</td>
<td>14.9</td>
<td>85.10</td>
<td>&lt;50</td>
</tr>
<tr>
<td>*Didn’t built enough financial security</td>
<td>69.57</td>
<td>30.43</td>
<td>&gt;50</td>
</tr>
<tr>
<td>*Health care Insurance</td>
<td>87.5</td>
<td>12.5</td>
<td>&gt;50</td>
</tr>
<tr>
<td>*Years of service credit</td>
<td>77.80</td>
<td>22.20</td>
<td>&gt;50</td>
</tr>
<tr>
<td>Merit increase freeze</td>
<td>34.75</td>
<td>65.25</td>
<td>&lt;50</td>
</tr>
<tr>
<td>*Apply for Social Security Benefits</td>
<td>63.90</td>
<td>36.10</td>
<td>&gt;50</td>
</tr>
<tr>
<td>Social Security Windfall Elimination Provision (WEP)</td>
<td>19.49</td>
<td>80.51</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Social Security Government Pension (GPO)</td>
<td>19.49</td>
<td>80.51</td>
<td>&lt;50</td>
</tr>
<tr>
<td>*Satisfied with Current Retirement</td>
<td>90.27</td>
<td>9.73</td>
<td>&gt;50</td>
</tr>
</tbody>
</table>

(*) Significant
4.2 Logistic Regression Test Findings

After using the Z-Test for One Population Proportion to better interpret the results, ten mutual questions between the active and retired employees were chosen (Table 4.2.). These questions were tested for significance using logistic regression model for both active and retired.
Table 4.2. Mutual Questions Chosen for Logistic Regression

<table>
<thead>
<tr>
<th>Question</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your family have a history of longevity?</td>
<td></td>
</tr>
<tr>
<td>I am satisfied with my health conditions?</td>
<td></td>
</tr>
<tr>
<td>I planned a retirement “to do” list?</td>
<td></td>
</tr>
<tr>
<td>I was educated on my retirement options?</td>
<td></td>
</tr>
<tr>
<td>Are you concerned that someday you may have to sell your home in order to maintain a secure environment?</td>
<td></td>
</tr>
<tr>
<td>Changes in technology affected my decision to retire?</td>
<td></td>
</tr>
<tr>
<td>In the future, do you believe it will be harder for Americans “Millennials in general” to prepare for retirement?</td>
<td></td>
</tr>
<tr>
<td>I was concerned about economic conditions affecting the ability to achieve a secure retirement?</td>
<td></td>
</tr>
<tr>
<td>I am satisfied with my life?</td>
<td></td>
</tr>
<tr>
<td>Did I consult with my spouse about my retirement plan?</td>
<td></td>
</tr>
</tbody>
</table>

A logistic regression test was conducted to find the average mean (M) and standard deviation (SD) for each question based on the Likert five-factor variable scale with a data source from LASERS/LSERS as shown in Table 4.3.

1. Strongly Disagree
2. Somewhat Disagree
3. Neutral
4. Somewhat Agree
5. Strongly Agree
Table 4.3. Logistic Regression Model for Key Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi Square</th>
<th>DF</th>
<th>P=</th>
<th>M</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family history of longevity</td>
<td></td>
<td></td>
<td></td>
<td>1.3254</td>
<td>0.6484</td>
</tr>
<tr>
<td>I am satisfied with my health insurance</td>
<td></td>
<td></td>
<td></td>
<td>3.8565</td>
<td>1.0574</td>
</tr>
<tr>
<td>I planned a retirement “to do” list</td>
<td></td>
<td></td>
<td></td>
<td>3.2823</td>
<td>1.2067</td>
</tr>
<tr>
<td>I was educated on my retirement options</td>
<td></td>
<td></td>
<td></td>
<td>3.9043</td>
<td>0.9978</td>
</tr>
<tr>
<td>How concern to sell your home for Secure Retirement.</td>
<td></td>
<td></td>
<td></td>
<td>1.9282</td>
<td>1.1778</td>
</tr>
<tr>
<td>Changes in technology affected my decision to retire</td>
<td></td>
<td></td>
<td></td>
<td>2.0239</td>
<td>1.1086</td>
</tr>
<tr>
<td>Harder future for Americans to retire</td>
<td></td>
<td></td>
<td></td>
<td>3.3397</td>
<td>1.3249</td>
</tr>
<tr>
<td>I was concern about economic conditions</td>
<td></td>
<td></td>
<td></td>
<td>3.7416</td>
<td>1.0717</td>
</tr>
<tr>
<td>I am satisfied with my life</td>
<td></td>
<td></td>
<td></td>
<td>3.9856</td>
<td>0.8884</td>
</tr>
<tr>
<td>I consult with my spouse about my retirement plan</td>
<td></td>
<td></td>
<td></td>
<td>3.3493</td>
<td>1.473</td>
</tr>
</tbody>
</table>

To find the significance of each variable, a logistic regression test was conducted to provide an intercept p-value of 0.0000, and it was significant for specific questions (*), and not significant for the others (Table 4.4.).
### Table 4.4 Logistic Regression Model for Key Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coeff.</th>
<th>StdErr</th>
<th>P-value</th>
<th>O.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept P-value = 0.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Family history of longevity</td>
<td>0.5322</td>
<td>0.2619</td>
<td>0.0421</td>
<td>1.7027</td>
</tr>
<tr>
<td>I am satisfied with my health insurance</td>
<td>-0.2104</td>
<td>0.1767</td>
<td>0.2336</td>
<td>0.8102</td>
</tr>
<tr>
<td>I planned a retirement “to do” list</td>
<td>-0.1698</td>
<td>0.1668</td>
<td>0.3089</td>
<td>0.8439</td>
</tr>
<tr>
<td>I was educated on my retirement options</td>
<td>0.3467</td>
<td>0.1963</td>
<td>0.0773</td>
<td>1.4143</td>
</tr>
<tr>
<td>Concern to sell your home for secure ret.</td>
<td>0.0633</td>
<td>0.1542</td>
<td>0.6816</td>
<td>1.0653</td>
</tr>
<tr>
<td>* Changes in technology affected my decision to retire</td>
<td>-0.3410</td>
<td>0.1655</td>
<td>0.0393</td>
<td>0.7110</td>
</tr>
<tr>
<td>* Harder future for Americans to retire</td>
<td>0.4800</td>
<td>0.1444</td>
<td>0.0009</td>
<td>1.6160</td>
</tr>
<tr>
<td>I was concerned about economic conditions</td>
<td>0.1946</td>
<td>0.1736</td>
<td>0.2622</td>
<td>1.2149</td>
</tr>
<tr>
<td>I am satisfied with my life</td>
<td>0.3225</td>
<td>0.2119</td>
<td>0.1280</td>
<td>1.3806</td>
</tr>
<tr>
<td>* I consult with my spouse about my retirement plan</td>
<td>0.8362</td>
<td>0.1476</td>
<td>0.000</td>
<td>2.3075</td>
</tr>
</tbody>
</table>

(*) significant

#### 4.2.1 Logistic Regression Findings

The results of the study show that most active and retired Louisiana government employees have high longevity age in their family history and they believe that the new generation (the millennials) will have a harder time in the future for retirement benefits.
Several contributing factors guided their retirement decision-making. The contributing factors were due to a variety of variables (social and subjective norms).

After looking at the logistic regression model including the ten variable (factors), all the hypotheses of the coefficient were set up to determine whether they are significant.

\[ H_0: \beta_1 = 0 \]
\[ H_1: \beta_1 \neq 0 \]

The p-value = 0, which means the intercept is significant, \((\beta_0 \neq 0)\); therefore, the null hypothesis \(H_0\) was rejected at a 95% confidence interval.

Hypothesis 12: The family has a history of longevity.

The p-value = 0.0421, which is less than 0.05, which means both have a family history of longevity significant \((\beta_{12} \neq 0)\); therefore, null hypothesis \(H_{12}\) was rejected. So, we can conclude with 95% confidence that families having a history of longevity is significant between active and retired members.

Hypothesis 13: Satisfaction with health insurance.

The p-value = 0.2336, which is greater than 0.05, which means satisfaction with health insurance does not affect active or retired \((\beta_{13} = 0)\). Therefore, null hypothesis \(H_{13}\) was not rejected at a 95% confidence interval.
Hypothesis 14: Planned a retirement “to-do” list.

The p-value = 0.3089, which is greater than 0.05, which means having planned for retirement with a to-do list does not affect active or retired ($\beta_{14} = 0$). Therefore, null hypothesis $H_{140}$ was not rejected at a 95% confidence interval.

Hypothesis 15: Education on retirement options.

The p-value = 0.0773, which is greater than 0.05, which means education on retirement options does not affect active or retired ($\beta_{15} = 0$). Therefore, null hypothesis $H_{150}$ was not rejected at a 95% confidence interval.

Hypothesis 16: Concern about someday selling home for a secure environment.

The p-value = 0.6816, which is greater than 0.05, which means the concerns about someday selling one’s home for a secure environment does not affect active or retired ($\beta_{16} = 0$). Therefore, null hypothesis $H_{160}$ was not rejected at a 95% confidence interval.

Hypothesis 17: Effect of changes in technology on the decision to retire.

The p-value = 0.0393, which is less than 0.05, which means the effect of changes in technology on their decision to retire is significant for both groups ($\beta_{17} \neq 0$). Therefore, null hypothesis $H_{170}$ was not rejected, so we can conclude changes in technology affected their decision to retire with 95% confidence.

Hypothesis 18: Harder for American Millennials to prepare for retirement.

The p-value = 0.0009 which is less than 0.05, which means both groups believe it will be harder for Americans Millennials to prepare for retirement, and the extent of this belief is
significant for both groups ($\beta_{18} \neq 0$). Therefore, null hypothesis $H_{180}$ is rejected, so we can conclude with 95% confidence that both group believe, at a significant level, that it will be harder for Americans “Millenials” to prepare for retirement.

Hypothesis 19: Concern about impact of economic conditions on achieving a secure retirement

The p-value = 0.2622, which is greater than 0.05, which means that concerns about the economic condition’s impact on their ability to achieve a secure retirement does not affect active or retired ($\beta_{19}=0$). Therefore, null hypothesis $H_{190}$ was not rejected at a 95% confidence interval.

Hypothesis 20: Satisfaction with retirement.

The p-value = 0.1280, which is greater than 0.05, which means satisfaction with life does not affect active or retired ($\beta_{20} = 0$). Therefore, null hypothesis $H_{200}$ was not rejected at a 95% confidence interval.

Hypothesis 21: Consulting with spouse about the retirement plan.

The p-value = 0.0000, which is less than 0.05, which means both groups consulted with their spouses about a retirement plan at a significant level ($\beta_{21} \neq 0$). Therefore, null hypothesis $H_{210}$ was rejected, so we can conclude with 95% confidence that both members consult with their spouses about a retirement plan at a significant level.

4.2.2 Second Logistic Regression Findings

After running the logistic regression test for the second time on the most significant remaining questions, the intercept p-value = 0.0000, which is significant. However, on the
question regarding the effect of changes in technology on the decision to retire, the p-value = 0.1010, which is greater than 0.05, with an average answers of 2.10, .021% (Table 4.5.). This means changes in technology had no effect on active or retired members. On the question regarding whether preparing for retirement will be harder for American Millennials, both active and retired employees’ second regression test had a p-value of 0.0001. On the question regarding whether workers consulted with their spouses about their retirement plans, both active and retired employees’ second regression test had a p-value of 0.0000 (Table 4.5.). Another question examined the logistic regression test to find out that all questions were not significant when the “y” used with Gender (Female (1), Male (0)) (Table 4.6).

Table 4.5. Logistic Regression Results after Non-Significant Deletion’s

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coeff.</th>
<th>StdErr</th>
<th>P-value</th>
<th>O.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td></td>
<td></td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td>*Family history of longevity</td>
<td>0.5442</td>
<td>0.2536</td>
<td>0.0319</td>
<td>1.7233</td>
</tr>
<tr>
<td>Changes in technology affected my decision to retire</td>
<td>-0.2471</td>
<td>0.1507</td>
<td>0.1010</td>
<td>0.7811</td>
</tr>
<tr>
<td>*Harder future for Americans to retire</td>
<td>0.5353</td>
<td>0.1376</td>
<td>0.0001</td>
<td>1.7080</td>
</tr>
<tr>
<td>*I consulted with my spouse about my retirement plan</td>
<td>0.8554</td>
<td>0.1412</td>
<td>0.0000</td>
<td>2.3522</td>
</tr>
</tbody>
</table>

(*): Significant

(Y= 0) Active
(Y=1) Retired.
Table 4.6. Logistic Regression Results Based on Gender

<table>
<thead>
<tr>
<th>Variables</th>
<th>Chi-Square</th>
<th>DF</th>
<th>P</th>
<th>Coeff.</th>
<th>StdErr</th>
<th>P-value</th>
<th>O.R.</th>
<th>Avg.</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.7918</td>
<td>8</td>
<td>0.9867</td>
<td>-0.0864</td>
<td>0.1913</td>
<td>0.6517</td>
<td>0.9173</td>
<td>3.9576</td>
<td>1.1600</td>
</tr>
</tbody>
</table>

Intercept P-value = 0.2865

- How likely are you to retire to receive larger benefits? -0.0036 0.2667 0.9893 0.9964 4.4068 0.8360
- How confident are you that you will be covered by the retirement system? 0.0732 0.2348 0.7551 1.0760 3.7203 0.9905
- How educated are you about your retirement options? 0.1578 0.2429 0.5159 1.1710 3.2034 1.2321
- I have a retirement “to do” list planned. -0.3209 0.2942 0.2755 0.7255 3.3051 1.0210
- My retirement “to do” list plan is a long-term plan. -0.0564 0.1888 0.7649 0.9451 2.9661 1.2751
- I have enough saving to cover basic retirement expenses. 0.0374 0.1489 0.8015 1.0382 2.7797 1.4679
- My spouse has influenced affected my plan to retire. -0.0111 0.2104 0.9579 0.9890 3.8898 1.0066
- How satisfied are you with your health condition? -0.0111 0.2104 0.9579 0.9890 3.8898 1.0066

33 cases have Y=0; 85 cases have Y=1.

The fast-paced changes in technology affected my decision to retire.

23 cases have Y=0; 48 cases have Y=1. with level of education

My years of service credit affected my decision to retire. -0.3228 0.2995 0.2810 0.7241 4.0563 0.9913

Do you believe the merit increase freezes affected members to leave the public sector? 0.2151 0.2077 0.3004 1.2400 208310 1.3320

Do you believe that the Social Security Provision (WEP) affected Louisiana state employees? -0.0517 0.3965 0.8963 0.9497 2.1408 1.1296

Do you believe that the Social Security Government Pension (GPO) affected Louisiana state employees? -0.1546 0.4070 0.7041 0.8568 2.1408 1.1044
33 cases have Y=0; 84 cases have Y=1

<table>
<thead>
<tr>
<th>Description</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>My life is close to the ideal life.</td>
<td>-0.3221</td>
<td>0.2751</td>
<td>0.2417</td>
<td>0.07246</td>
</tr>
<tr>
<td>I am satisfied with my life.</td>
<td>-0.1542</td>
<td>0.3176</td>
<td>0.6273</td>
<td>0.8571</td>
</tr>
<tr>
<td>My work takes up time that I would like to spend with my family/friends.</td>
<td>0.0445</td>
<td>0.1477</td>
<td>0.7633</td>
<td>1.0455</td>
</tr>
<tr>
<td>My personal life takes more than that I would like to spend at work.</td>
<td>-0.0546</td>
<td>0.1999</td>
<td>0.7846</td>
<td>0.9468</td>
</tr>
<tr>
<td>My home life interferes with my responsibilities at work, such as getting to work on time, accomplishing daily tasks, or working overtime.</td>
<td>-0.0364</td>
<td>0.2672</td>
<td>0.8917</td>
<td>0.9643</td>
</tr>
<tr>
<td>Traffic congestion/delays influence my decision to retire.</td>
<td>-0.1599</td>
<td>0.1679</td>
<td>0.3409</td>
<td>0.8522</td>
</tr>
<tr>
<td>A tropical storm, climate change or hurricane affected my decision to retire.</td>
<td>-0.2875</td>
<td>0.2890</td>
<td>0.3198</td>
<td>0.7501</td>
</tr>
</tbody>
</table>

None of the above variables are significant

(*) Significant
(Y= 0) Active
(Y=1) Retired

4.3. Summary of the results

The findings from the collected surveys for both retired and active members of Louisiana retirement systems provide no evidence that Hurricane Katrina had any statistical effect on a person’s retirement decision. It affected residents of many Louisiana parishes, but Louisiana State employees were not concerned enough to take early retirement or retire at all. The correlations among the 117 members on average was 1.86, the coefficient was -0.1599, and the p-value was 0.3198, as explained in Table 4.6.
Although many Louisianans were displaced by the storm, no prior research examined retirement decisions post-Katrina due to upheavals in living conditions and traffic congestion. However, according to the survey conducted, the average response to this variable was 1.86 with a p-value of 0.75 on a 95% confidence limit, so it was not significant (Table 4.6). There were less than 2%, who strongly believed that traffic influenced their decision to plan for retirement due to the high gas prices of the time, averaging $3 per gallon (Maynard, 2005).

Most of the questions asked of both active and retired workers were not statistically significant (Table 4.2).

The average response regarding health satisfaction was 3.86 with a standard deviation of 1.05. Interestingly, the p-value was 0.233, but the odds ratio was 0.810 (Table 4.3).

According to Price (2009), a large body of research examines factors which may affect retirement satisfaction. The study indicates that in the private sector, health and wealth are the most important predictors.

The results regarding a retirement planning to-do list were not significant, but the average was 3.2 of 5 with a standard deviation of 1.232 and a p-value of 0.515 (Table 4.6). However, the retirement education seminars held at the various state agencies were encouraging members to have a retirement planning to-do-list as well as encouraging attendance at retirement seminars as early and often as possible.

Most Louisiana government active and retired employees indicated that they have a high longevity in their family history, and they believe that the new generation (the millennials) will have a harder time in the future securing retirement benefits. Several contributing factors influenced their retirement decision-making. The contributing factors were due to a variety of variables (social and subjective norms).
After looking at the logistic regression model including the ten variables (factors), hypothesis were set up, and their coefficients were calculated to determine whether they are significant.

Regarding the question “Does your family have a history of longevity?” the p-value = 0.0421 which is less than 0.05, which means both active and retired members have a family history of longevity (H0 is different ≠ 0). Therefore, the null hypothesis H0 was rejected because it is significant (B1 ≠ 0). Thus, we can conclude with 95% confidence that families having a history of longevity B1 is significant. While longevity is usually valued, it does bring more financial challenges to the pension systems. Surprisingly, the survey showed that technological changes do affect the decision to retire. The p-value was 0.0393 (< 0.05), which indicates that it may be related to the advanced technology that the government agencies must keep up with to get the quick results that are needed. But when a test ran again for just the significant variables (question), it became not significant with a p-value=0.10, which is > 0.05. (Table 4.4).

With a p-value=0.0009 (Table 4.4), it is believed that it will be more difficult for millennials to prepare for retirement. A survey by the National Institute on Retirement Security (2009) showed that millennials are the generation to save more towards retirement. Yet Louisiana active and retired employees are highly concerned about the future of the Millennials. LASERS has implemented robust deduction tools for millennials, including the “MINT” campaign (Millennials Investing Now for Tomorrow). LASERS has been concerned with a lack of plan design changes needed to accommodate the mobility of the millennial workforce, particularly given the lack of Social Security available to Louisiana members. However, since there are not yet any retired millennials, it was very hard to judge their retirement satisfaction.
With a p-value of 0.000 (Table 4.4), the survey showed that both active and retired members did consult with their spouse about retirement. And with a p-value = 0.308, it was shown that it was not significant to have a retirement to-do list.

The other survey questions from 2, 3, 5, 8, and 9 dealing with decision behaviors indicated no significant effect on retirement (p-value = .05) – more than 50% (Table 4.4).

Regarding financial and economic factors, the questions asked were all found to be insignificant (Table 4.6). Questions asking if the member retired to receive more substantial benefits had a p-value = 0.651. Another about whether the retirement system will cover them through retirement had a p-value = 0.996 (Table 4.6). Even though some results are not statistically significant, these findings may be relevant because other researchers are getting similar results. In overwhelming numbers, 75% of Americans believe that the nation faced a retirement crisis when they were asked if they were worried about their ability to attain and sustain financial security in retirement (NIRS, 2019).

Additionally, 70% say average workers can’t save enough on their own to guarantee a secure retirement, and 56% agree that it is getting harder to prepare for retirement (NIRS, 2019). Yet the effect of level of education was not significant, and there was no difference between the members have a college degree or not (Table 4.6).

In summary, participants completed electronic and paper surveys, and the results were used to help determine why state government employees plan to retire and at what age. Eligible service credits, along with other factors, influence the decision to retire for state government employees, particularly in Louisiana. The study indicates that safe, realistic retirement plans must include benefits throughout generations, with “generations” typically meaning groups of individuals born within a recognized 30-year period. This was particularly aimed at the millennial generation born between 1982 and 2004. There is a concern that the millennials
work for state government for several years to acquire experience to prepare them to work for
the private sector where they may ultimately receive better retirement benefits and higher pay.
For those who work for a state government whose public employees do not participate in
Social Security, the security provided by their public pension is critical. Of concern for
millennials is the fact that, with respect to LASERS members, there is an increasing likelihood
that they will not stay in state service long enough to earn a public pension. The 2018 LASERS
experience study shows that, among state workers at age 22, less than five percent will remain
in the system long enough to earn a full, unreduced LASERS pension. It should be noted that
upon withdrawal/termination from the system, the member is eligible only to receive a refund
of employee’s contributions without interest. Further, these former employees will not have
an accrued Social Security quarters or other pension coverage.
CHAPTER 5. SUMMARY AND CONCLUSIONS

From this research, we can draw interesting conclusions and recommendations for making better retirement decisions for the active or retired Louisiana state government employees. Retirement decision-making is essential in the changing American society, regardless of where a person worked or what position of employment was held. In making the decision to retire happily and satisfied with a guaranteed income, an individual needs a planned roadmap for retirement. In the state of Louisiana, 47,000 retirees are receiving monthly benefits from LASERS alone, not including other Louisiana retirement pensions.

Figure 1.1 shows the number of active and retired members reported from 2004 to 2018 (LASERS, 2019). The highest number of active employees, a total of 64,149, were in 2004. The highest number of retired employees receiving monthly benefits from LASERS, a total of 48,679, occurred in 2018 - an increase of 18% compared to 2004 figures. While this study focuses primarily on Louisiana public sector employees, it is clear that no matter from where they retire (local, state, or federal government), all retirees have the same concerns as to when would be a good time to retire and how secure their retirement will be.

For aging active employees and employees nearing their eligibility for retirement, planning for retirement requires thoughts, calculation, and courage. Many questions and concerns arise, such as the best time to retire; security of financial independence; the psychological effects; health care coverage and plans; and what retirement plan to choose.

This study provides a better-documented understanding of when and why Louisiana workforces make the decision to retire and what made them do so. A common question is when would it be best to retire. Based on the surveys collected and the statistical analysis, there is a significant factor for the number of years vested in the system (service credits). These are frequently cited concerns, especially for millennials. The rising cost of health care
by 74%, rising cost long-term care by 66%, stagnating salaries by 61%, and increasing debt of 57% are major factors making it harder to prepare for retirement (NIRS, 2019).

Financially, if there are not enough savings, reasonable investment income, and pension income to cover living expenses and spending habits, adjustments must be planned. On the other hand, planning can lead to an extra cushioned lifestyle where the retiree no longer has to work and has more than an ample income to live happily satisfied with life. Yet many active employees spend more time planning vacations than planning a realistic and reliable retirement security plan to provide for their future needs. In the survey conducted, 75% of retirees would like to travel when retired, and some would like to settle in a different country. Louisiana has a historically rich culture with robust family-oriented ties and a strong integration of retirees within the community. Retirees prefer aging –in-place as do Louisiana. For example, 18 recipients were receiving benefits while living in a different country, according to LASERS (2018).

What makes a person decide to retire? In the academic field, college professors very often may continue teaching until they are 80 years of age or older before deciding to retire, as long as they perform their duties accordingly. While 58.9 is the average age for a retired member of Teachers Employees Retirement of Louisiana (Appendix G). Those in a different profession, such as uniformed personnel, can retire earlier through different plans (Appendix D). Many must retire early due to a family situation or other factors, including but not limited to social, political, health, technology, and financing. In fact, some may accept a lump-sum payment to pay off debts when selecting an Initial Benefit Option retirement plan (IBO), or they may have no choice but to take early retirement due to family, personal, or administrative issues or changes (Appendix E).

As for the health care factor, some state government employees have other reasons
for retiring, like healthcare or quality of life for families wanting to spend more time with a
spouse or an ill family member. Others never used their vacation time and kept saving the
money only to become stricken with a major illness. This does not benefit them and their
families. Health insurance was a significant factor for Louisiana active and retired state
employees. Financially, The National Institute on Retirement Security (NIRS) released a
report on February 26, 2019, on the American public’s views on pensions and retirement
security. The findings indicate that there is a high level of American retirement insecurity.
The studies show that 83% of people are concerned about the ability to retire in the current
economic environment since they cannot achieve financial security in retirement. According
to the American Association of Retired Persons (AARP) (2018), Americans also believe
retirement is a responsibility shared among the individual, government, and employer.
Furthermore, 71% of Americans believe that, compared to previous generations, it is now
harder to prepare for retirement. Today’s retirement indicates that 51% that retirement is
less promising than that which was available to previous generations.

According to the Pew Research Center (2011), in the United States, 10,000 baby
boombers turn 65 every single day. The average American retirement age is 63, and the life
expectancy for retirees is about age 85. The average retirement age for Louisiana employees
is about 58, with an average of 24 years of service credits (Appendix G). This means
Americans should plan to spend about 22 years in retirement. The AARP (2018) suggests
saving a certain amount as a retirement income nest egg, but the buying power varies wildly
depending on where you live. In Louisiana, the average household income is $75,000+, and
the average needs of a current salary to retire comfortably are 80% according to the active and
retired survey conducted for LASERS and LSERS.
This study did not find that social, technology, environmental, or traffic factors significantly impact state employee’s decisions regarding retirement. Louisiana is a historically rich culture and has robust family-oriented ties and strong integration of retirees within the community, and 90% of Louisiana retirees stay in Louisiana. However, the study did not find that other factors, such as financial security and millennials’ challenging future, significantly impact employees thoughts on retirement.

The survey conducted did not show any significance as far as the WEP or GPO affect. However, it is imperative to consider how the WEP affects employees (or a former spouse) as well as the GPO. It needs to be modified for state workers so they can receive Social Security for the 40 credits into which they have paid. In Louisiana, if a member worked instead of paying into social security, that member is paying for the state retirement. There are other states where the state employee can pay into Social Security and the state’s retirement plan. But Louisiana state employees (LASERS, TRSL, and LSERS) pay only into the retirement system and not into Social Security.

Payment into Social Security is 7.5% to 8% of a person’s salary, which is more or less the same amount paid into LASERS, TRSL, and LSERS, but retirees in these systems receive no Social Security since they did not pay into it through the state. To receive a Social Security benefit, a person must pay into Social Security for 40 quarters. This can be earned by state employees either before becoming employed by the state or after retirement from state service. Their Social Security benefit will, however, be reduced depending on how long they contributed to Social Security, and the benefit will be reduced when reaching 65 years of age.

When compared to other states that contribute to social security and to their state retirement system, employees pay more for social security and a small amount for their
retirement system. Their benefit becomes a little small compared to Louisiana or other non-social security contributors, so their percentage of retirement will be small from state and get the max from social security which would not be better than the non-social security states contributors. If a member pays in 30 years or more, he or she will benefit from social security but only marginally. Most people make less than a $100,000 a year, and when it is time to collect social security, which is $1,200 to $1,500 a month, it will help, but it is not going to be a sufficient amount.

Louisiana retirement members who work for thirty years will receive $3,500-$4,000 a month which is notably above other social security state members, but anyone who did not pay in for ten years (40 quarters) will not get funds from social security.

The other non-significant factor, although it is very important, is the GPO, which is mainly for survivors who have a deceased family member with less than 10 years with social security. The spouse is not eligible for collecting benefits, but as far as any Louisiana systems or other members from a non-social security states go, they receive benefits based on the option the spouse selected.

On the concern about millennials, although no millennials have retired yet, it is imperative to start planning ahead. Both survey groups agreed that they have concerns about the future of the economy and the more difficult retirement future for the millennials.

Regarding financial security, Louisiana retirement system members, particularly members of LASERS and LSERS, do not pay for social security but pay the 7.5% to LASERS. This is why the benefits are high compared to other states who pay small amounts to their retirement systems. In Louisiana, the employer pays 36% of the invested money on behalf of the employee, while a member pays 7.5% and that is why Louisiana members receive excellent benefits for retirement: 40% of Louisiana employees’ salaries go toward
their retirement, and there are small changes between TRSL and LSERS on the cruller rate.

Since retirees are on a fixed income, Cost of Living Adjustments (COLA) are very important, and those are dependent on the agency’s investment success. Healthcare is a major concern, especially for retirees who are aging and are worried whether it will be affordable and available in the future.

An analysis of the survey responses indicates that 58% of Louisiana families have a history of longevity which ranges between 75-109 years. Sixty-three percent of the respondents were female, and 37% male between the age groups of 65-75. The respondents indicated that they were concerned because of the current economic conditions as well as the complicated retirement system they anticipate for the millennial generation.

In summary, both retired and active members cited concerns with their intentions to retire. The most significant factors were found to be in the economic category questions in the future economy and how likely complicated retirement would be for Millennials. Both groups plan to keep working until they receive the maximum benefits. Other significant factors among active, retired males and females in making their decision to retire were wages and years of service. Eighty-seven percent of active state government employees indicated that years of service credit and age affected their decision to retire. Health insurance was a significant factor among active and retired workers, compelling them to stay working until they meet eligibility to retire with health care benefits.
CHAPTER 6. RECOMMENDATIONS FOR FUTURE RESEARCH

Conducting this study and reviewing the literature lead us to make the following suggestions for future research. One is that further research is needed on the future retirement plans of millennials. Although there are no current, retired millennials, a good plan needs to be suggested. Further research is also needed into retirement options plans like those of other states who either participate in social security or not, such as the hybrid plan.

More questions that need to be investigated, such as:

(1) What would be the retirement benefits if an active member stayed longer than 65 and what would be the effect on the system?

(2) At the current time no millennials to retire but, would a millennial rank-and-file worker benefit from working past the age of 65? What is the return value?

(3) Insurance, taxes are going up but, what about the cost of living? A research in-depth in Cost of Living Adjustments (COLA), especially when insurance rate keeps going up is needed.

(4) What is a realistic plan for ensuring a secure retirement for millennial state employees?

(5) Hybrid plans consideration, some states tried the hybrid plan, what about Louisiana systems, are they considering it?

(6) Is Louisiana systems considering cutting or rolling special incentives on retirees’ property taxes

(7) The majority of Louisiana retirees stay in Louisiana, but what about attracting others, such as those in Florida, to move to Louisiana?
Louisiana is a rare exception nationally, in that Louisiana has been fully funding the actuarially required contribution for state systems, (as outlined in the valuation of each system), since the passage of a Constitutional amendment in 1987 requiring the financial soundness of the systems to be maintained. LASERS recently conducted an experience study which also dealt with LASERS mortality rates. LASERS’s experience for the 2013 and 2018 plan years does not reflect the trend of mortality improvement seen among the general population.

The study does not provide guidance toward creating or providing a realistic plan for millennials, but rather determine through analysis that such a plan does not currently exist in Louisiana systems. However, a hybrid plan may be worth consideration, which is a way to make retirement more affordable since the new retirees have to work until 62 no matter what, so if a new hire is 22 years of age, he/she has to work 40 more years. So, with a hybrid plan, instead of paying social security, a person might pay some in an Individual Retirement Account (IRA) and some to Louisiana retirement, which gives employees an option: if they leave early, they can keep the IRA account money and what they paid for the Louisiana retirement system. It would be a good boost for the younger generations.

COLA and health care are critical subjects that also can be researched, which is a huge concern. A final direction for future research is to examine if, other than service credits, there is any significant distinction between public and private sector employees’ decision-making regarding retirement.
REFERENCES


APENDIX A
LSU INSTITUTIONL REVIEW BOARD (IRB)
Consent Form

2. Performance Site: Any PREP Seminars conducted by Louisiana State Employees Retirement Systems (LASERS)
3. Investigators: The followings investigators are available for questions about the study
   1. Osama A. Amous 225-315-0460
   2. Dr. F. Aghazadeh 225-578-5367
4. Purpose of the study: The purpose of the research project is to assist the current attitudes of the contributing factors, which will assist in a research study to determine the influencing Retirement Decision-Making for State Government Employees As we are interested in analyzing retirement trends of members who elected to retire
5. Subject Inclusion: State government employees (Active or Retired)
6. Number of Subjects: 100 +
7. Study Procedures: The study will be conducted in three phases. The first phase, subjects will spend ten minutes in the PREP seminars to fill out the survey depending if they are Active or Retired employees. Also, request a statistical data of Active and Retired status members of LASERS retirement plan from the year 2000 – 2015.
8. Benefits: Study will lead to a valuable information about the influencing retirement decision making.
9. Risks: No risks attached unless subjects name voluntarily provided, in case names were provided in the surveys, every effort will be made to maintain the confidentiality of my study records. Files will be kept in secure cabinets to which only the investigator has access.
10. Right to Refuse: Subjects may choose not to participate or to withdraw from the study at any time without penalty or loss of any benefits to which they might otherwise be entitled.
11. Privacy: Results of the study may be published. However, no names or identifying information will be included in the publication. Subject identity will remain confidential unless law requires disclosure.
12. Signatures:
   The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about subjects’ rights or other concerns, I can contact Dennis Landin, Institutional Review Board, (225) 578-8692, irb@lsu.edu, I agree to participate in the study described above and acknowledge the investigator’s obligation to provide me with a signed copy of this consent form.

Subject Signature: _____Osama Amous__________ Date: _______10/16/2017_______
**Please sign and submit this document with your IRB application**

Security of Data

Number: PS06.20

SECURITY OF DATA

PURPOSE

I certify that I have read and will follow LSU’s policy on security of data – PS06.20 (http://sites01.lsu.edu/wp/policiesprocedures/policies-procedures/6-20/) and will follow best practices for security of confidential data (http://www.lsu.edu/it_services/its_security/best-practices/sensitive-data.php)

This Policy Statement outlines the responsibilities of all users in supporting and upholding the security of data at Louisiana State University regardless of user’s affiliation or relation with the University, and irrespective of where the data is located, utilized, or accessed. All members of the University community have a responsibility to protect the confidentiality, integrity, and availability of data from unauthorized generation, access, modification, disclosure, transmission, or destruction. Specifically, this Policy Statement establishes important guidelines and restrictions regarding any and all use of data at, for, or through Louisiana State University. This policy is not exhaustive of all user responsibilities, but is intended to outline certain specific responsibilities that each user acknowledges, accepts, and agrees to follow when using data provided at, for, by and/or through the University. Violations of this policy may lead to disciplinary action up to and including dismissal, expulsion, and/or legal action. It is recommended that all personnel on your project be familiar with these policies and requirements for security of your data.

In addition it is recommended that PIs review any grant, non-disclosure/confidentiality agreement, or restricted data agreements before publishing articles using the data.

I certify that I have read and understand these policies

Name: Naghazadeh

Date: 10-16-2017
Osama A Amous <oarnous1@lsu.edu>;
Cc: Fereydoun Aghazadeh <aghaza.deh@lsu.edu>;

Hi,

The IRB chair reviewed your application, When to Take the Leap: A Study of Factors Influencing Retirement Decision-Making for State Government Employees, and determined IRB approval for this specific application (IRB# E10075) is not needed. There is no manipulation of, nor intervention with, human subjects. Should you subsequently devise a project which does involve the use of human subjects, then IRB review and approval will be needed. Please include in your recruiting statements or intro to your survey, the IRB looked at the project and determined it did not need a formal review.

You can still conduct your study. It falls under a certain category that does not need IRB approval. Elizabeth

LSU
Elizabeth Cadarette
IRB Coordinator
Dear Member,

I am a Ph.D. student at Louisiana State University (LSU) and a state employee. I would like you to complete a voluntary survey. The results will be aggregated for the benefits of this research that will give a broad in-depth analysis to use the data to aid in forecasting why state government employees want to retire and at any certain age, with eligible service credits, to assess the effect of the contributing factors, which will determine the influences of retirement decision-making for state government employees.

LSU Office of Research and Economic Development, the IRB looked at the project and determined it did not need a formal review. After completing the survey, it will be held in strict confidence. It can be handed in, faxed, e-mailed and mailed in the attached pre-stamped envelope to the following address below:

Thanks so much

O. A. Amous
C/O Vicki Hannan
LSU Engineering Student Services

2228 Patrick F. Taylor Hall
Baton Rouge, LA. 70803, U.S.A
E-Mail: oamous1@lsu.edu
Phone: 225-315-0460
FAX: 225-922-9678
1. Gender

☐ Female
☐ Male
☐ Other: ____________

2. Age:

☐ 23-34
☐ 35-44
☐ 45-54
☐ 55-64
☐ 65-74
☐ 75 and older

3. Ethnicity/Race:

☐ Hispanic/Latino
☐ American Indian or Alaska Native
☐ Asian
☐ African American
☐ Native Hawaiian or Other Pacific Islander
☐ White
☐ Other: ____________

4. Political Party Affiliation:

☐ Republican
☐ Democrat
☐ Independent
☐ Prefer not to disclose
☐ Other: ____________

5. Marital Status:

☐ Married
☐ Divorce/Separated
☐ Single/Never Married
☐ Widower
☐ Unmarried, but living with partner
6. Highest Degree/Level of School:

- None
- Nursery to 8th Grade
- Some High School, no diploma
- High School Graduate/diploma or equivalent
- Some College, no degree
- Trade/Technical/Vocation Training
- Associates Degree
- Bachelor’s Degree
- Master’s Degree
- Doctorate Degree

7. Area of Residence:

- Urban
- Suburban
- Rural

8. Do you own or rent your home?

- Own
- Rent
- Other: ___________

9. What is your current employment status?

- Employed Full Time
- Employed Part-Time
- Rehired Retiree
- Other: ___________

10. If rehired retiree, which of the following is your current job?

- In the same field
- In a different field

11. To which System do you belong?

- State Employee’s Retirement System (LASERS)
- Teachers’ Retirement System (TRSL)
- School Employees’ Retirement System (LSERS)
- State Police Retirement System
- Other: ________________
12. How many years of service credit do you have with the state government?

☐ 1-5 year(s)
☐ 6-10 years
☐ 11-15 years
☐ 16-25 years
☐ 26-30 years
☐ 30+ years

13. At what age do you plan to retire?

☐ 30-50
☐ 51-55
☐ 56-60
☐ 61-65
☐ 65+
☐ Other: ___________

<table>
<thead>
<tr>
<th>How likely are you to wait to retire to receive bigger benefits?</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>How confident are you that you will be covered by the retirement system?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How educated are you on retirement options?</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

14. What passions are activities do you wish to pursue once you actually retire?

☐ Hobbies
☐ Support an ill family member
☐ Babysit grandchildren
☐ Work
☐ Volunteer
☐ Cleanup/remodel home
☐ Other: ___________

<table>
<thead>
<tr>
<th>I have a retirement ‘to do’ list planned.</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My retirement ‘to do’ list plan is a long-term plan.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
15. How significant is the influence of your spouse affecting your plan to retire?

☐ Extremely
☐ Very significant
☐ Moderately
☐ Slightly significant
☐ Not at all

16. If married, what does your spouse do for a living?

☐ Retired
☐ Employed for wages
☐ Self-employed
☐ Homemaker
☐ Student
☐ Military
☐ Other: __________

17. What does ‘well-being’ mean to you?

☐ Happiness
☐ Prosperity
☐ Health
☐ All of the above
☐ None of the above

18. If ‘happiness’ was your choice, what path will you follow to happiness?

☐ Pleasure and Enjoyment
☐ Engagement and Challenge
☐ Meaning and Purpose

19. Does your family have a history of longevity (live longer)?

☐ Yes
☐ No
☐ Unknown

20. How satisfied are you with your health condition?

☐ Very satisfied
☐ Somewhat satisfied
☐ Neutral
☐ Somewhat dissatisfied
☐ Very dissatisfied
<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My job requires me to use a computer.</td>
<td></td>
<td></td>
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<tr>
<td>I use a computer personally.</td>
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<tr>
<td>My job requires me to use the internet.</td>
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<tr>
<td>I use the internet in my personal life.</td>
<td></td>
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</tr>
</tbody>
</table>

21. On average, how many hours per day do you spend on the internet?

- [ ] Less than 1 hour a day
- [ ] 1-2 hour(s)
- [ ] 2-3 hours
- [ ] 3-4 hours
- [ ] More than 4 hours

22. The fast-paced changes in technology affect my decision to retire.

- [ ] Strongly agree
- [ ] Somewhat agree
- [ ] Neutral
- [ ] Somewhat disagree
- [ ] Strongly disagree

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic congestion/delays influence my decisions to retire.</td>
<td></td>
<td></td>
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<tr>
<td>The 2016 Great Flood affected my decision to retire.</td>
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<tr>
<td>The terrorist act crises such as 9/11 affected my decision to retire.</td>
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</tr>
<tr>
<td>The terrorist act crises affected my decision to change my place of living.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23. Without heavy traffic conditions, how long does it take you to get to work?

☐ Less than 15 minutes
☐ 15-30 minutes
☐ 45-60 minutes
☐ 1-2 hours
☐ 2-3 hours

If you decided to postpone your plan to retire for any of the above reasons, how much longer will you work? __________

**Economical and financial impacts**

24. With is your total household income?

☐ Less than $35,00
☐ $35,00 to less than $50,000
☐ $50,000 to less than $75,000
☐ $75,000 to less than $125,000
☐ $125,000 or more
☐ Do not know
☐ Refuse to share

25. To maintain a comfortable standard living, how much income will you need upon retirement?

☐ 90% of the current salary
☐ 80-89% of the current salary
☐ 70-79% of the current salary
☐ 60-69% of the current salary
☐ 50% or less of the current salary
☐ Not sure

26. As a state employee, what matters to you the most?

☐ Retirement Benefits
☐ Salary
☐ Insurance Benefits
☐ All of the above

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you currently insured with Office of Group Benefits (OGB)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you plan to keep your OGB coverage in retirement?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will you be affected by WEP or GOP?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
27. Which of the following do you plan to do to ensure a financially secure retirement?

- Stay in current job as long as possible
- Save more than saving now
- Cut back spending once retired
- Cut back current spending
- Seek full or part time work in retirement

<table>
<thead>
<tr>
<th>How concerned are you about current economic conditions affecting your ability to achieve a secure retirement?</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>How concerned are you that you would have to sell your home in order to secure your retirement?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

28. Do you feel that it will be harder for Americans to prepare for retirement in the future?

- Much easier in the future
- Slightly easier in the future
- Slightly harder in the future
- Much harder in the future
- Not sure

The satisfaction with life scale

<table>
<thead>
<tr>
<th>The conditions of my life are excellent.</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am satisfied with my life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>So far, I have gotten the important things I want in life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>After work, I come home too tired to do some of the things I would like to do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On the job, I have so much more work to do it takes away from my personal interest.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My family/friends dislike how much I am preoccupied with my work while I am at home.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My work takes up time that I would like to spend with my family/friends.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My personal life takes up more time that I would like to spend at work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My home life interferes with my responsibilities at work, such as getting to work on time, accomplishing the daily task, or working overtime.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Your comments**

All information provided will be treated in strict confidence and will remain anonymous. Thank you for taking the time to complete the survey. Please write any additional comments.
Dear Member,

I am a Ph.D. student at Louisiana State University (LSU) and a state employee. I would like you to complete a voluntary survey. The results will be aggregated for the benefits of this research that will give a broad in-depth analysis to use the data to aid in forecasting why state government employees want to retire and at any certain age, with eligible service credits, to assess the effect of the contributing factors, which will determine the influences of retirement decision-making for state government employees.

LSU Office of Research and Economic Development, the IRB looked at the project and determined it did not need a formal review. After completing the survey, it will be held in strict confidence. It can be handed in, faxed, e-mailed and mailed in the attached pre-stamped envelope to the following address below:

Thanks so much

O. A. Amous  
C/O Vicki Hannan  
LSU Engineering Student Services  
2228 Patrick F. Taylor Hall  
Baton Rouge, LA. 70803, U.S.A  
E-Mail: oamous1@lsu.edu  
Phone: 225-315-0460  
FAX: 225-922-9678
1. Gender

☐ Female
☐ Male
☐ Other: __________

2. Age:

☐ 23-34
☐ 35-44
☐ 45-54
☐ 55-64
☐ 65-74
☐ 75 and older

3. Ethnicity/Race:

☐ Hispanic/Latino
☐ American Indian or Alaska Native
☐ Asian
☐ African American
☐ Native Hawaiian or Other Pacific Islander
☐ White
☐ Other: __________

4. Political Party Affiliation:

☐ Republican
☐ Democrat
☐ Independent
☐ Prefer not to disclose
☐ Other: __________
5. Marital Status:

- Married
- Divorce/Separated
- Single/Never Married
- Widower
- Unmarried, but living with partner

6. Highest Degree/Level of School:

- None
- Nursery to 8th Grade
- Some High School, no diploma
- High School Graduate/diploma or equivalent
- Some College, no degree
- Trade/Technical/Vocation Training
- Associates Degree
- Bachelor’s Degree
- Master’s Degree
- Doctorate Degree

7. Area of Residence:

- Urban
- Suburban
- Rural

8. Do you own or rent your home?

- Own
- Rent
- Other: _______________

9. How concerned are you that someday you may have to sell your home in order to maintain a secure environment?

- Extremely Concerned
- Very Concerned
- Moderately Concerned
- Slightly Concerned
- Not at all
10. Do you feel that in the future it will be harder for Americans to prepare for retirement?

☐ Extremely Hard
☐ Very Hard
☐ Moderately Hard
☐ Slightly Hard
☐ Not at all

11. What is your current employment status?

☐ Employed Full time
☐ Employed Part-Time
☐ Retired
☐ Re-employed Retiree
☐ Self-Employed
☐ Looking for Work
☐ Going Back to School
☐ Unable to work

12. How many years of service credit did you have upon retirement?

☐ 1-5 year(s)
☐ 6-10 years
☐ 11-15 years
☐ 16-25 years
☐ 26-30 years
☐ 30+ years

13. What System did you retire from?

☐ State Employees’ Retirement System (LASERS)
☐ Teachers’ Retirement System (TRSL)
☐ School Employees’ Retirement System (LSERS)
☐ State Police Retirement System
☐ Other: ______________________

14. Did you accept a Lump-Sum Leave payment?

☐ Yes
☐ No
☐ N/A
15. If you received a Lump-Sum Payment, what influenced your decision?
   □ Bad Economy
   □ Pay bills
   □ Vacation/Trip
   □ Investments
   □ Medical Bills
   □ Other: _______________

16. How long did you plan for retirement?
   □ Less than one year
   □ 1-3 years
   □ 4-5 years
   □ Did not plan

17. Which type of retirement did you select?
   □ Regular
   □ Actuarially Reduced Retirement
   □ Deferred Retirement Option Plan (DROP)
   □ Initial Benefit Option (IBO)
   □ Disability

18. Which retirement option did you select?
   □ Max
   □ Option 1
   □ Option 2
   □ Option 3
   □ Option 4A
   □ Option 4B

19. What affected your decision to retire?
   □ Years of service credit
   □ Social influencers
   □ Peer influencers
   □ Debt
   □ Loss of identity
   □ Heath, health of family, kids
   □ Job fulfillment
   □ Technology
   □ Other: _______________
20. What does your spouse do for a living?

- Retired
- Employed for wages
- Self-employed
- Homemaker
- Student
- Military
- Not applicable

21. Have you identified passions and activities you wish to pursue once you actually retire?

- Hobbies
- Support an ill family member
- Babysit grandchildren
- Work
- Volunteer
- Cleanup/remodel home
- Other: ___________

22. What does ‘well-being’ mean to you:

- Happiness
- Prosperity
- Health
- All of the above
- None of the above

23. If ‘happiness’ was your choice, which paths will you follow to happiness?

- Pleasure and Enjoyment
- Engagement and Challenge
- Meaning and Purpose

24. Does your family have a history of longevity (live longer)?

- Yes
- No
Please indicate how strongly you agree or disagree with the following statements by marking your response on the following.

<table>
<thead>
<tr>
<th>I was educated on my retirement options.</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was concerned about economic conditions affecting the ability for me to achieve a secure retirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I consulted with my spouse about my retirement plan.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I planned a retirement ‘to do’ list.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior to retiring, I was fulfilled in my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with my retirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am planning to leave the state.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am planning to leave the country.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am concerned because I did not make a plan or ‘to do’ list for retirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I regret my decision to retire.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was concerned about losing my ‘working’ identity after retiring.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with my health condition.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The fast changes in technology affected my decision to retire.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I returned to work, I would have to use a computer.</td>
<td>Strongly Agree</td>
<td>Somewhat Agree</td>
<td>Neutral</td>
<td>Somewhat Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>---------</td>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>I use a computer personally.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I returned to work, I would have to use the internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I use the internet in my personal life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25. On average, how many hours per day do you spend on the internet?

- [ ] Less than 1 hour a day
- [ ] 1-2 hour(s)
- [ ] 2-3 hours
- [ ] 3-4 hours
- [ ] More than 4 hours

<table>
<thead>
<tr>
<th>Traffic congestion/delays influence my decisions to retire.</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A tropical storm or hurricane affected my decision to retire.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The 2016 Great Flood affected my decision to retire.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The terrorist act crises such as 9/11 affected my decision to retire.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The terrorist act crises affected my decision to change my place of living.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

26. What is your total household income?

- [ ] Less than $35,000
- [ ] $35,000 to less than $50,000
- [ ] $50,000 to less than $75,000
- [ ] $75,000 to less than $125,000
- [ ] $125,000 or more
- [ ] Do not know
- [ ] Refuse to share
27. To maintain a comfortable standard of living, how much income will you need?

- 90% of the current salary
- 80% of the current salary
- 70% of the current salary
- 50% or less of the current salary
- Not sure

28. As a state employee, what mattered to you the most?

- Retirement benefits
- Salary
- Insurance benefits
- All of the above

29. Are you eligible to file for Social Security benefits?

- Yes
- No
- Unknown

30. If eligible, will you file under your Social Security or your spouse?

- My record
- Spouse’s record
- Unknown
31. Will you be affected by WEP or GOP?

☐ WEP
☐ GOP

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>In most ways, my life is close to ideal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The conditions of my life are excellent.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with my life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>So far, I have gotten the important things I want in life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

YOUR COMMENTS

All information provided will be treated in strict confidence and will remain anonymous. Thank you for taking the time to complete the survey. Please write any comments regarding your decision to retire that should be taken into consideration concerning the retirement process, if applicable.
## Retirement Plan Options for Louisiana Workers

### Retirement Options

Starting from option 2A the following options allow only one beneficiary and benefits amounts based on the age of retiree and age of beneficiary who will receive a benefit at retiree’s death. See table 3 for an example.

<table>
<thead>
<tr>
<th>Maximum Plan</th>
<th>Retiree receives the basic benefit; more than one beneficiary can be named and changed at any time. The beneficiary receives a balance of contributions in a lump sum, no monthly benefit payable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>Retiree receives a reduced benefit; More than one beneficiary can be named and changed at any time. The beneficiary receives the balance of contributions in a lump sum, no monthly benefit payable.</td>
</tr>
<tr>
<td>Option 2A</td>
<td>Retiree receives a reduced benefit; the beneficiary receives the same amount as the retiree.</td>
</tr>
<tr>
<td>Option 3</td>
<td>Retiree receives reduced benefit Beneficiary receives 50% of retiree benefit.</td>
</tr>
<tr>
<td>Option 4A</td>
<td>Retiree receives 90% of maximum benefit Spouse receives 55% of maximum benefit (must name the spouse as beneficiary and have been married at least two years before retirement)</td>
</tr>
<tr>
<td>Option 4B</td>
<td>Retiree receives a reduced benefit; the beneficiary receives 55% of retiree benefit.</td>
</tr>
</tbody>
</table>

(Appendix D Cont’d)
An example of retirement options: Patricia is retiring with 13.2 years of service at age 60 and her beneficiary is age 64. She has an annual final average compensation of $31,668.00 and an accrual rate of 2.5%, using the formula \((13.2 \times 0.025 \times 31,668.00)\) so her Maximum retirement benefits is $895.87 per month including $25 for COLA. This amount will be reduced if she chooses a retirement option other than Maximum. The chart below shows the monthly amount that she will receive depending on which retirement option she chooses:

<table>
<thead>
<tr>
<th></th>
<th>Maximum</th>
<th>Option 1</th>
<th>Option 2A</th>
<th>Option 3</th>
<th>Option 4A</th>
<th>Option 4B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Retirement payment</td>
<td>100 percent</td>
<td>Reduced amount from maximum</td>
<td>Reduced amount based on ages at retirement</td>
<td>Reduced amount based on ages at retirement</td>
<td>90 percent of maximum</td>
<td>Reduced amount based on ages at retirement</td>
</tr>
<tr>
<td>Monthly benefit to member</td>
<td>$895.87</td>
<td>$890.27</td>
<td>$813.94</td>
<td>$852.94</td>
<td>$806.28</td>
<td>$848.88</td>
</tr>
<tr>
<td>Beneficiary Payment (after your death)</td>
<td>Lump sum of remainder of unused employee contributions</td>
<td>Lump sum of remainder of unused employee contributions</td>
<td>Same amount as retiree</td>
<td>50 percent of retiree’s benefit</td>
<td>Maximum</td>
<td>55 percent of retiree’s benefit</td>
</tr>
<tr>
<td>Monthly Benefit to Beneficiary</td>
<td>None</td>
<td>None</td>
<td>$913.94</td>
<td>$426.47</td>
<td>$492.73</td>
<td>$466.88</td>
</tr>
</tbody>
</table>

Active members who worked prior to 1985 receive an addition of $25 for the Cost of Living Adjustments (COLA).
APPENDIX E
IBO AND DROP PLAN INFORMATION

Members of LASERS on IBO and DROP participants from the year 2014-2018

<table>
<thead>
<tr>
<th>YEAR</th>
<th>DROP</th>
<th>IBO</th>
<th>REGULAR</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>701</td>
<td>220</td>
<td>864</td>
<td>1785</td>
</tr>
<tr>
<td>2015</td>
<td>595</td>
<td>247</td>
<td>877</td>
<td>1719</td>
</tr>
<tr>
<td>2016</td>
<td>545</td>
<td>251</td>
<td>758</td>
<td>1554</td>
</tr>
<tr>
<td>2017</td>
<td>546</td>
<td>241</td>
<td>753</td>
<td>1540</td>
</tr>
<tr>
<td>2018</td>
<td>488</td>
<td>238</td>
<td>740</td>
<td>1466</td>
</tr>
<tr>
<td>TOTALS</td>
<td>2875</td>
<td>1224</td>
<td>3992</td>
<td>8064</td>
</tr>
</tbody>
</table>

Data Source and Descriptive Statistics for Regular, DROP, IBO participants of LASERS Year 2014-2018

<table>
<thead>
<tr>
<th>Variable</th>
<th>Data Source</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>DROP</td>
<td>Louisiana State Employees Retirement System (LASERS)</td>
<td>575</td>
<td>79.97812</td>
</tr>
<tr>
<td>IBO</td>
<td>Louisiana State Employees Retirement System (LASERS)</td>
<td>239.4</td>
<td>11.9708</td>
</tr>
<tr>
<td>REGULAR SERVICE</td>
<td>Louisiana State Employees Retirement System (LASERS)</td>
<td>798.4</td>
<td>66.3046</td>
</tr>
</tbody>
</table>
DEMOGRAPHIC INFORMATION OF PARTICIPANTS

Figure F.1 SURVEY PARTICIPANTS DEMOGRAPHIC INFORMATION
## APPENDIX G
DATA COLLECTED FROM LASERS AND TRSL

Members of LASERS retired in Year/ Prior Year Active 2000-2014

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ACTIVE</th>
<th>RETIRED</th>
<th>AVERAGE AGE</th>
<th>AVERAGE ELIGIBILITY SERVICE CREDIT (In Yrs)</th>
<th>PERCENTAGE OF MBRS RETIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>67879</td>
<td>1631</td>
<td>58.0</td>
<td>23.4</td>
<td>2.40</td>
</tr>
<tr>
<td>2001</td>
<td>67977</td>
<td>1614</td>
<td>57.4</td>
<td>23.4</td>
<td>2.38</td>
</tr>
<tr>
<td>2002</td>
<td>68601</td>
<td>1873</td>
<td>56.8</td>
<td>23.0</td>
<td>2.76</td>
</tr>
<tr>
<td>2003</td>
<td>68003</td>
<td>1534</td>
<td>58.1</td>
<td>23.6</td>
<td>2.24</td>
</tr>
<tr>
<td>2004</td>
<td>67714</td>
<td>1687</td>
<td>57.9</td>
<td>24.1</td>
<td>2.48</td>
</tr>
<tr>
<td>2005</td>
<td>61506</td>
<td>2326</td>
<td>57.7</td>
<td>23.9</td>
<td>3.44</td>
</tr>
<tr>
<td>2006</td>
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Data Source and Descriptive Statistics for members of LASERS retired in Year/ Prior Year Active
2000-2014

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Members of Teachers Retirement System of Louisiana (TRSL) retired in Year/ Prior Year Active 1996-2014

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Data Source and Descriptive Statistics for members of TRSL in Year/ Prior Year Active 1996-2014

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APPENDIX H
RESULTS OF QUESTIONS RESPONSES FOR 230 PARTICIPANTS

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<td>(5) I planned a retirement 'to do' list.</td>
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<td>(6) I was educated on my retirement options.</td>
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<td>(7) How concerned are you that someday you may have to sell your home in order to maintain a secure environment?</td>
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<td>(8) Changes in technology affected my decision to retire.</td>
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<td>(9) Do you feel that in the future it will be harder for Americans to prepare for retirement?</td>
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<td>(10) I was concerned about economic conditions affecting the ability for me to achieve a secure retirement.</td>
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Gender: 1 = female and 2 = male

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APPENDIX I
LOGISTIC REGRESSION WEBSITE PROGRAM

Enter the number of data points 75 (or, if summary data, the number of lines of data).
Enter the number of the predictor variable 10
Enter the confidence level 95 %

Y= active - retired or male - female

$\beta_0$ = (Coefficient)

X= Question, variable, or factor

For example:

Y= -7.44+0.8566X_1 + 0.379X_2 +…B10X_{10}

Y= -7.44+ 0.8566(Katrina Affect) + 0.379(Harder for Milliners)…+ 0.3639(economy).
VITA

Osama Abdellatif Amous was born in Attil, West Bank. He has been married to Fatima Ahmad for 24 years of marriage. They are blessed with two sons and two daughters, three of whom are currently attending LSU.

Osama received a B.S. degree in computer science from Southern University A & M College, Baton Rouge, Louisiana in 1988. He has been working at Louisiana State Employees Retirement System (LASERS) since 1992.

His desire to increase his knowledge and fulfill his passion to earn more knowledge, led him to enroll in a master’s program in industrial engineering and a Ph.D. in engineering science with a minor in information systems and decision science at LSU in 2014. He received a master’s degree in industrial engineering in summer 2019.

He taught IE project management as an Adjuncts Instructor in the LSU Department of Mechanical and Industrial Engineering in spring 2017.