### **ACTUARIAL VALUATION REPORT**

## CITY OF NEW ORLEANS EMPLOYEES' RETIREMENT SYSTEM

Annual Actuarial Valuation as of January 1, 2016

CONEFRY & COMPANY, LLC

ACTUARIAL AND EMPLOYEE BENEFIT CONSULTING NEW ORLEANS, LOUISIANA

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#### **INTRODUCTION**

We present in this report the results of our actuarial valuation of the City of New Orleans Employees' Retirement System as of January 1, 2016. The plan is intended to be actuarially funded, and we have performed this actuarial valuation using conventional and generally accepted actuarial methods, assumptions, and principles as would typically be applied to a qualified defined benefit pension plan subject to the funding standards of the Employee Retirement Income Security Act of 1974 (ERISA), but applied, of course, in the context of governmental plans within the meaning of the Internal Revenue Code and Regulations. We have performed the actuarial valuation using the Entry Age Normal Cost Method. A full description of the funding method is contained beginning on page 4 of the report. There were changes made in the actuarial assumptions involving healthy and disabled mortality, turnover, disability incidence and expected time of retirement as a result of the 2006-2010 Actuarial Experience Study. Full details of the revised assumptions are contained in Exhibit II of the Appendix.

The Summary of Plan Provisions presented in the Appendix is intended to describe the principal benefits provided by the plan, particularly from the perspective of their significance in affecting the actuarial liability and cost of the plan. The summary is not, of course, intended to be a comprehensive or complete description of all benefits payable under all circumstances under the pension plan.

#### <u>CITY OF NEW ORLEANS</u> <u>EMPLOYEES' RETIREMENT SYSTEM</u>

### **SUMMARY**

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#### I. FINANCIAL AND ACTUARIAL STATUS as of January 1, 2016

We have conducted this actuarial valuation using employee data and asset information furnished by the plan administrator and the auditors. This section of the report presents a summary of the assets of the plan at Fair Market Value. The funding method used to determine the actuarial liabilities is described in Section II and the actuarial assumptions upon which the liabilities are based are summarized in Exhibit II of the report.

#### **ASSETS**

The following table showing the composition of the assets as of December 31, 2015 is based on information supplied by the auditors through the System administrative staff.

Table 1
Statement of Assets at Fair Market Value

as of December 31, 2015

<u>Assets</u>	Market Value
Bonds and Fixed Income Type Securities	\$ 101,813,436
Stocks and Equity Type Securities	172,375,014
Cash & Equivalents	15,712,333
Alternative Investments	51,441,736
Accrued Interest & Dividends	187,066
Accounts Receivable (Net)	326,911
Net of Accounts Payable and Other Liabilities	-2,757,846
Net Assets Available for Benefits	\$ 339,098,650 *

<sup>\*</sup> The actuarial value of assets used in this valuation is Adjusted Market Value as determined in Table 3.

#### COST OF LIVING RESERVE

Historically, the Board of Trustees had adopted the policy of maintaining a "Cost of Living Account" representing a "reserve" to provide for cost of living payments to retirees and beneficiaries from excess realized investment earnings. In the January 1, 1996 and prior actuarial valuations, this reserve was used as an offset to assets in developing the actuarial value of assets. Beginning with the January 1, 1997 and in subsequent actuarial valuations, this reserve was included with other actuarial liabilities in Table 5, item (1). Effective with the January 1, 2007 actuarial valuation, the Board eliminated the inclusion of this "reserve" in system actuarial liabilities in favor of the direct demonstration of the amount available for cost of living payments as described below.

The "reserve" described above was intended to represent the amount available for such cost of living payments pursuant to Section 114-204 (7) of the New Orleans Code governing System benefits. After analysis of the language of the foregoing section, to wit that the Board ". . . shall be authorized to retain interest earnings in excess of an average 3.5 percent on investments of the system to be used to provide a cost of living increase in benefits for members who have retired in the past or who may retire in the future, in an amount not to exceed three percent of the original benefit for each year of retirement; . . . ", the Board has adopted a revised policy of determining the amount available pursuant to the foregoing section as follows. The Board has made the interpretation that "interest earnings" represents cumulative market-to-market investment performance of the fund and that "in excess of an average 3.5 percent" means cumulative investment performance in excess of 3.5 percent compounded annually. Reference to Exhibit VI in the Appendix indicates that a cumulative investment performance of 3.5 percent compounded annually would have resulted in total system assets of \$25,945,403 as of December 31, 2015 based on the assumption that there had not been any cost of living payments during the 25 year period considered. Actual fund performance during the 25 year period considered resulted in a market value of \$339,098,650 after recognition of the cost of living payments actually made.

By reference to Exhibit V in the Appendix, it will be noted that the cumulative compound annual rate of return based on market values has been 6.95%, compounded annually, for the period January 1, 1989 through December 31, 2015.

#### ACTUARIAL VALUE OF ASSETS

Beginning with the January 1, 1997 actuarial valuation, the method of determining the actuarial value of assets was changed to adjusted market value from the former adjusted book value basis. This method reflects actual market value performance over a seven year period ending on the valuation date. The market value performance is averaged over the seven year period by reflecting the actual external cash flow and adjusting each prior year's market value to the current valuation date using the actuarial interest assumption in effect for each year.

The following table develops the Adjusted Market Value of Assets to be used as the Actuarial Value of Assets in the actuarial valuation.

Table 3
Actuarial Value of Assets
As of December 31, 2015

Plan	Beginning		Market Value	Ending	Market Value Adj. Market			
Year	Market	Cash Flow	Inv. Income	Market	Performance	Value		
Ending	<u>Value</u>	For Year	For Year	<u>Value</u>	For Year	Component		
2009	267,341,275	-17,055,427	59,869,583	310,155,431	23.1323%	358,506,693		
2010	310,155,431	-18,232,506	42,485,923	334,408,848	14.1131%	387,069,435		
2011	334,408,848	-12,523,028	-4,276,183	317,609,637	-1.3031%	348,480,089		
2012	317,609,637	-14,844,479	35,842,303	338,607,461	11.5550%	364,093,505		
2013	338,607,461	-16,283,003	50,131,156	372,455,614	15.1698%	393,371,461		
2014	372,455,614	-16,860,619	15,155,075	370,750,070	4.1632%	380,301,339		
2015	370,750,070	-17,606,672	-14,044,748	339,098,650	-3.8803%	339,098,650		
Years	Included: 7	-113,405,734	185,163,109					

Average Adj. MV: \$367,274,453

#### EMPLOYER AND EMPLOYEE CONTRIBUTIONS

#### for the Plan Year Beginning January 1, 2016

#### DESCRIPTION OF ACTUARIAL COST METHOD

Under the Entry Age Normal Cost Method, the normal cost of the plan is designed to be a level percentage of payroll, calculated on an individual basis, spread over the entire working lifetime of each participant. The future working lifetime is determined from each participant's hypothetical entry age into the plan assuming the plan had always been in existence, to his expected retirement date. The actuarial accrued liability is the amount of total liability not covered by future entry age normal costs. This amount is composed of the actuarial value of benefits already funded (assets) and those not yet funded (unfunded actuarial liability).

The plan's funding cost for the year is the sum of the Entry Age Normal Cost and the amount necessary to amortize the remaining unfunded actuarial liability as of the valuation date over the adopted amortization period as discussed below. Effective with the January 1, 2012 actuarial valuation, the investment return assumption was changed from 7.75% annually to 7.50% annually.

The basis used to amortize the unfunded actuarial liability can be "open" (that is, a constant number of years) or "closed" (that is, with the remaining period reducing by one each year). The basis may also be either a level dollar amortization method (more conservative) or a method based on increasing valuation payroll (less conservative). Beginning with the January 1, 2011 actuarial valuation, the actuarial cost method was changed from the Frozen Initial Liability Method to the Entry Age Normal Cost Method. The former amortization basis used through the January 1, 2009 actuarial valuations consisted of a level dollar amortization for a ten (10) year "closed" amortization period from January 1, 2008 through December 31, 2017. Effective January 1, 2011, this was replaced by a level dollar amortization for an "open" ten (10) year amortization period effective on each valuation date. Beginning with the January 1, 2012 actuarial valuation the open ten (10) year amortization amount was changed to an open fifteen (15) year amortization and that amount is developed later in this section and presented in Table 5.

# Table 4 Entry Age Normal Cost for Plan Year Beginning January 1, 2016

(1) Total Entry Age Normal Cost of All Active Participants \$ 8,144,544
 (2) Current Annual Payroll of Active Participants \* \$ 105,691,915
 (3) Composite Entry Age Normal Cost Percentage:

 (1) divided by (2)
 7.706%

\* There are 2,562 active participants: 1,227-fully vested; 0-partially vested; 1,335-not vested.

# Table 5 Entry Age Normal Cost Unfunded Actuarial Liability as of January 1, 2016

(1)	Actuarial Present Value of Expected Benefits to Plan Participants (a) Total Active	\$	249,980,766	
	<ul> <li>(b) Ordinary &amp; Separation Retirement</li> <li>(c) Beneficiaries</li> <li>(d) Disabled Retirement</li> <li>(e) Terminated Vested</li> <li>(f) D.R.O.P. Account Balances</li> <li>(g) D.R.O.P. Future Benefits</li> </ul>	_	285,309,193 20,245,369 16,401,780 3,956,590 11,913,298 30,463,617	
	Total Inactive	\$	368,289,847	
	Grand Total			\$ 618,270,613
(2)	Actuarial Present Value of Future Normal Cost Contributions:			55,584,208
(3)	Entry Age Normal Cost Accrued Actuarial Liability (a) Active: (1)(a) - (2) (b) Inactive: (1)(g) (c) Total: (3)(a) + (3)(b)	\$	194,396,558 368,289,847	562,686,405
(4)	Actuarial Value of Assets (from Table 3)			367,274,453
(5)	Unfunded EAN Actuarial Liability as of January 1, 2016: (3)(c) - (4)			\$ 195,411,952

#### TOTAL CONTRIBUTION FOR PLAN YEAR BEGINNING January 1, 2016

The contribution for a plan year equals the normal cost, plus the expense assumption cost, plus the amount necessary to amortize the Entry Age Normal Cost (EAN) Unfunded Actuarial Liability. This Unfunded Liability for funding purposes is \$195,411,952, as discussed on page 4. The annual amount required to amortize this EAN Unfunded Liability over the open 15 year period ending December 31, 2030 at 7.50% annual interest is \$20,593,191.

The total plan contribution on this basis is developed in the following Table 6.

# Table 6 Total Required Contribution for the Plan Year Beginning January 1, 2016

(1)	(From Table 4)	\$ 8,144,544		
(2)	Expense Assumption Cost (0.3% of Annual Covered Payroll)	317,076		
(3)	Net Annual charge Required for 15 Year Amortization of EAN Unfunded Liability (See Above)	20,593,191		
(4)	Total Plan Contribution as of January 1, 2016: (1) + (2) + (3)	\$ 29,054,811	(27.490%)	*
(5)	Annual Employee Plan Contributions as of January 1, 2016	\$ 6,341,515	(6.000%)	*
(6)	Employer Contribution as of January 1, 2016: (4) - (5)	\$ 22,713,296	(21.490%)	*

<sup>\*</sup> Expressed as a percentage of annual participant payroll of \$105,691,915.

(1)

#### NET ACTUARIAL EXPERIENCE

#### for the Plan Year Beginning January 1, 2015

Actuarial experience refers to the comparison of actuarial results of each valuation with those expected from the previous valuation according to the actuarial assumptions. Under the Entry Age Normal Cost Method the basis of comparison is the change in the total plan actuarial cost, expressed as a percentage of payroll. A decrease or increase in the total plan actuarial cost percentage is normally indicative of favorable (gains) or unfavorable (losses) experience, respectively. If the overall experience follows the general pattern indicated by the assumptions presented in the Appendix, the percentage of payroll will remain unchanged, except for routine fluctuations.

The method of determination of the actuarial gain or loss over the past plan year is presented in the table below.

# Table 7 Net Actuarial Experience for the Plan Year Ending December 31, 2015

( )	as of January 1, 2016	27.490%
(2)	Total Plan Actuarial Cost Percentage as of January 1, 2015	28.512%
(3)	Net Change in Total Plan Cost Percentage: (1)-(2)	-1.022%
(4)	Change in Total Plan Cost Percentage Due to Actuarial Experience:	-1.022%

Total Plan Actuarial Cost Percentage

## <u>Table 8</u> <u>Net Actuarial Experience by Component</u> <u>for the Plan Year Ending December 31, 2015</u>

Component	Effect on Employer cost Gain (-) or Loss (+)
Interest Assumption	-0.614%
Salary Scale	-0.913%
Net Change From All Other Sources	+0.505%
Grand Total	<u>-1.022%</u>

#### EXHIBIT I

### EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF NEW ORLEANS

#### SUMMARY OF PLAN PROVISIONS

EFFECTIVE DATE: 1947; Restated for Plan Qualification, January 1, 1994;

Last major amendment date - January 1, 2013.

<u>CREDITABLE SERVICE</u>: Prior service plus membership service for which credit is

allowable. Also, one month service credit given for every twenty-one days accumulated sick and/or annual leave. Credit for prior military service may be purchased (maximum 4 years) by active contributing member who reaches age 65 or who has at least 10 years of service; lump sum payment required based on 4% of excess over first \$100 monthly average for each month claimed plus 4% compound interest. After March 1, 1980, military service available only to those who will not receive a benefit from another public pension plan. (except Social

Security)

EARNABLE COMPENSATION: Annual compensation paid to an employee; includes

tenure pay and excludes overtime pay.

AVERAGE COMPENSATION: Average annual earned compensation of a member for

highest thirty-six successive months (forty-eight effective January 1, 2014 and sixty months effective January 1, 2015) of service as a member, minus \$1,200. Effective June 1, 2002, \$1,200 removed. After April 29, 1979, earned compensation based on pay for regular required

work and excludes State supplemental pay.

EMPLOYEE CONTRIBUTIONS: 4% of earnable compensation over \$1,200 per year.

Effective June 1, 2002, \$1,200 removed. Effective January 1, 2012 the rate is 5% and effective January 1, 2013 the

rate is 6%.

EMPLOYER CONTRIBUTIONS: Certain percentage of earnable compensation of each

member, known as "Normal Contributions," determined on basis of regular interest and mortality tables adopted by the Board, and additional percentage of earnable compensation, known as "Accrued Liability Contributions," determined by actuary on basis of the amortization period

adopted by the board from time to time.

#### MEMBERSHIP:

Includes:

- 1) Employees hired on July 1, 1947 and after, who become members as condition of employment, except for those over 65 unless 10 years prior service.
- 2) Employees hired before July 1, 1947 became members, unless they elected not to join.
- 3) For officials elected or appointed for fixed terms, membership is optional.
- 4) All officers and employees of various judicial and parochial offices of the parish, except those covered by another system and those for whom no contributions are made by respective officers, are eligible.
- 5) For employees of French Market Corporation, membership is optional; eligibility is contingent on not having attained age 55.
- 6) Effective November 1, 1993, membership includes the full-time employees of the Coroner's Office.
- 7) Effective April 1, 1997, membership includes the full-time employees of the District Attorney's Office.

Age 60 and 10 years of service: age 65 and 5 years of service; any age and 30 years of service. Effective January 1, 2002, any member whose age and service total 80 may retire with no age reduction.

Retirement allowance, consisting of (1) and (2) below:

1) An annuity, which is the actuarial equivalent of employee's accumulated contribution; plus

#### **RETIREMENT:**

Eligibility:

Benefits:

- 2) Effective for members retiring on or after January 1, 2002, an annual pension, which, together with above annuity, provides total retirement allowance equal to 2.5% of average compensation times first 25 years, plus 4% of average compensation times creditable service over 25 years.
- 3) Effective for members retiring before 2002, but on or after January 1, 1983, an annual pension, which, together with above annuity, provides total retirement allowance equal to 2% of average compensation times first 10 years, plus 2 1/2% of average compensation times next 10 years, plus 3% of average compensation times next 10 years, plus 4% of average compensation times creditable service over 30 years.
- 4) Effective January 1, 1983, additional pension equal to 2% of \$1,200 times first 10 years, plus 2 1/2% of \$1,200 times next 10 years, plus 3% of \$1,200 times next 10 years, plus 4% of \$1,200 times service over 30 years. Ceases at 62 or at eligibility for Social Security, whichever comes first. Effective January 1, 2002, the \$1,200 exclusion will not apply.
- 5) Additional pension for member who reaches age 65 with 20 or more years and the retirement allowance under (1) and (2) above is less than \$1,200 per year; to produce total retirement allowance of \$1,200 per year.
- 6) Effective January 1, 1982, for service retirement prior to age 62 with less than 30 years of Service, (3) and (4) above are reduced by 3% for each year below 62. However, effective January 1, 1996, this reduction is not made if employee has at least 30 years of service. Effective January 1, 2002, no reduction if age and service total at least 80.
- 7) <u>Maximum Benefit</u>: Benefit not to be greater than 100% of average compensation, unless member has already accrued a larger benefit as of April 1978.

- 8) Minimum Benefit: Effective June 1, 1999, benefit of \$300 per month for retirees with 10 years of service at retirement.
- 9) Form of Benefit: Modified cash refund annuity If a member dies after retirement and before receiving the amount of his accumulated contributions in annuity payments, then lump sum balance of his contributions is paid to beneficiary.
- 10) Cost-of-Living: Board of Trustees retains excess over average 3 1/2% interest earnings to provide Cost-of-Living increases in benefits to retirees (past or future) not to exceed 3% of original benefit per each year of retirement. Effective January 1, 2001, additional one-time increase of 1% times member's or beneficiary's current monthly benefit times whole calendar years from date benefit commenced.

#### **DISABILITY**:

Ordinary Disability Retirement:

Eligibility:

10 years of credited service and totally and permanently incapacitated for performance of duty (certified by physician nominated by Board).

Benefit:

If eligible, service retirement allowance:

- a) An annuity, which is the actuarial equivalent of employee's accumulated contributions; and
- b) An annual pension, which, together with a) equals 75% of service allowance that would have been payable at age 65 had member continued in service to age 65, computed on average compensation (minimum benefit \$300 per year).

Accidental Disability Retirement:

Eligibility:

Accident sustained in service as member and while in performance of duty (and certification by physician nominated by Board of incapacity).

Benefit:

1) If eligible - service retirement allowance.

2) If ineligible for retirement allowance, then <u>accidental</u> <u>disability retirement allowance</u>, consisting of:

- a) An annuity which is the actuarial equivalent of employee's accumulated contributions; and
- b) An annual pension, equal to the difference between the annuity and 65% of earnable compensation for year preceding Date of Accident.

Medical examinations required every three years for those disability retirees under 60. Accidental disability benefits are offset by workmen's compensation payments, if any.

Note:

#### **DEATH BENEFITS:**

Ordinary Death Benefits:

Eligibility:

Benefits:

Notes:

Death of member in active service.

Employee's accumulated contributions paid to beneficiary.

- 1) If member has three years Creditable Service, additional Lump Sum Benefit equal to 1/4 of earnable compensation for year preceding death, plus 5% of such earnable compensation for each additional year of creditable service (benefit not to exceed compensation made before death).
- 2) If, at date of death, member was eligible for retirement and leaves Surviving Spouse, Surviving Spouse shall be eligible to elect either Option Number 2 or Lump Sum refund of Employee's contributions.
- 3) Offset by Worker's Compensation benefits.
- 4) If, at date of death, member was ineligible for retirement, but was at least 55 years of age and had

10 or more years of creditable service, or was under age 55 and had at least 20 years of creditable service, then surviving spouse may elect to receive benefit equal to an actuarially reduced amount based upon the members' age and years of creditable service. Benefit to cease when surviving spouse reaches age of eligibility for Social Security.

SEPARATION BENEFITS:

1) Effective January 1, 2002, a member who separates with 5 years of Creditable Service may allow his accumulated contributions to remain on deposit and service retirement allowance to begin as early as age 65.

Prior to January 1, 2002, withdrawal with 10 years of Creditable Service prior to separation, member may allow accumulated contributions to remain on deposit and service retirement allowance to begin as early as age 60 (subject to reduction if retirement is elected before age 62). If death before retirement, return of accumulated contributions with interest.

2) Upon withdrawal without 5 years Creditable Service, Employee is entitled to return of his accumulated contributions with interest or may allow contributions to remain on deposit for maximum of five years. (In case of employee's death, then accumulated contribution plus interest are paid to beneficiary.)

If employee re-enters after receipt of refund and continues service thereafter for at least six months, he may repay amount of refund plus the amount of employer contributions, with compound interest, to receive

prior creditable service again.

- If a member dies before receiving, in annuity payments, the value of his annuity at the time of his retirement, then balance is payable to his beneficiary.
- 2) 100% survivor's benefits reduced retirement benefit continued to beneficiary at member's death. spouse predeceases the retiree, the benefit reverts back to the maximum amount.

Note:

OPTIONAL FORMS OF BENEFIT:

- 3) 50% survivor's benefits 50% of reduced retirement benefit continued to beneficiary at member's death. If the spouse predeceases the retiree, the benefit reverts back to the maximum amount.
- 4) Other benefits of equal actuarial value, upon approval of Board.

On monthly basis, except when total retirement allowance is less than \$120 per year; then, quarterly, semi-annually, or annually, as Board decides.

Effective July 16, 1974, provisions made for reciprocal transfers of service and funds between this System and Employees' Retirement System of the Sewerage and Water Board of New Orleans, in the event an employee transfers from one employing agency to the other; service credits were transferred from sending system to receiving system provided all employee contributions plus earned interest and all employer contributions plus agreed-upon interest were transferred; effective September 23, 1993 retroactive for transfers on and after October 17, 1988), agreement was amended to provide for a transfer from the sending system to the receiving system equal to the GASB #5 liability of the sending system at 7% interest, 5% salary scale, the remaining GASB #5 actuarial assumptions and the salary and benefit structure in effect for the sending system at time of transfer.

From January 1, 1987 through April 30, 1987 an early retirement window was available. Any member who had at least 15 years of service and whose age plus service totalled at least 70, could retire during the window with no reduction for early retirement. Member must have converted all sick leave into service credits.

Effective January 1, 1994, any member who is eligible for a service retirement under Section 114-201(a) may participate in the DROP program:

#### **PAYMENT OF BENEFITS:**

RECIPROCITY:

EARLY RETIREMENT WINDOW:

DROP ACCOUNT:

- 1) A member can participate for up to five years.
- 2) When a member joins the DROP, he stops contributing to and earning benefits in the system. Employer contributions also stop. His retirement benefit begins being paid into his DROP account.
- 3) Interest is earned on the DROP account at an annual rate set by the Board. Members of the DROP receive cost-of-living increases, as if they would have received such raises as a retiree.
- 4) Upon termination of employment at the end of the specified period of DROP participation, the DROP account is paid out. After his DROP period ends and upon continued or re-employment, the member may resume contributions and earn a supplemental benefit based on current covered compensation.
- 5) If at the end of a Member's period of DROP participation he does not terminate employment, payments into the DROP shall cease and no further interest shall be earned or credited to the account. Payments shall not be made until employment is terminated.

#### SUMMARY OF PLAN CHANGES IN RECENT YEARS

April 27, 1978 Monthly retirement benefit shall not exceed average

monthly compensation of a member.

January 1, 1979 Mandatory retirement age is 70.

April 29, 1979 Defined "Average Compensation" and "Based earned

compensation".

Allows for purchase of credit for prior military service.

September 17, 1981 "Ordinary Death Benefits" is described.

January 1, 1982 Any member who has 30 years of creditable service may

retire regardless of age.

Additional pension allotment was outlined.

January 1, 1983 Normal Retirement Benefits amended by the addition of

4% of average compensation times creditable service over 30 years. Also, 4% of \$1,200 times service over 30 years

is provided for in the additional pension.

For those retiring under age 55, benefit reduced by 2%

for each year under 55.

January 1, 1987 Any member with a minimum of 15 years of creditable

service and age plus service equal to 70, providing that he converts all sick leave to membership credit, may retire with no reduction in benefits during the period of

January 1, 1987 through April 30, 1987 only.

May 21, 1987 "Average Compensation" re-defined for computing benefits

from September 30, 1986 through November 30, 1989.

#### SUMMARY OF PLAN CHANGES IN RECENT YEARS (Continued)

May 21, 1987 Offset of plan benefits with Workers' Compensation and

Social Security benefits is clarified.

<u>January 19, 1989</u> "Employee" re-defined to provide for part-time service

credit.

Purchase of part-time service credits allowed.

September 23, 1993 Reciprocity agreement with Sewerage and Water Board

amended retroactive for transfers on and after October

17, 1988 (see Page 15 of this report for details).

November 1, 1993 Membership extended to Coroner's Office.

January 1, 1994 Plan amended for qualification under Internal Revenue

Code for Governmental Plans.

The Deferred Retirement Option Plan was adopted to allow members terminating employment and accepting a service retirement allowance under plan section 55-34(1)

to participate in this program.

For members retiring on or after January 1, 1994, and choose either Option 2 or Option 3, if the beneficiary predeceases the retiree, the reduced benefit reverts back to the maximum amount beginning the month following

notification of death.

January 1, 1996 Any member with 30 years of creditable service may

retire regardless of age, with no reduction in benefits.

The DROP period extended from two to five years. The

two-year waiting period was removed.

April 1, 1997 Membership extended to District Attorney's Office.

Minimum benefit of \$300 per month for retirees with 10

years of service at retirement.

June 1, 1999

### SUMMARY OF PLAN CHANGES IN RECENT YEARS (Continued)

January 1, 2001	Additional cost of living increase to members and beneficiaries equal to a 1% increase times the current monthly benefit times whole calendar years since benefit commenced (one-time increase).
January 1, 2002	Rule of 80 adopted. Age plus service equal 80. No reduction in benefit.
January 1, 2002	Normal Retirement Benefit formula amended to 2.5% of average compensation times the first 25 years of creditable service plus 4% times service over 25 years.
January 1, 2002	"Creditable service" redefined.
January 1, 2002	Any member who separates from service before age 65 with 5 years of service and leaves his accumulated contributions on deposit may receive a retirement allowance beginning at or after age 65.
June 1, 2002	\$1,200 exclusion on earnings removed.
January 1, 2012	Period for calculation of average compensation changed to 48 months effective January 1, 2014 and 60 months effective January 1, 2015.
January 1, 2012	Employee contribution percentage changed to 5% of all pension compensation effective January 1, 2012 and to 6% effective January 1, 2013.

#### EXHIBIT II

#### <u>CITY OF NEW ORLEANS</u> EMPLOYEES' RETIREMENT SYSTEM

#### STATEMENT OF ACTUARIAL BASIS FOR FUNDING PURPOSES

Actuarial Funding Method:

Cost Method:

Entry Age Normal Cost Method.

Asset Valuation Method:

Adjusted Market Value using seven year smoothing.

Actuarial Assumptions

Interest:

7.50% compounded annually (changed from 7.75%

effective with January 1, 2012 Actuarial Valuation).

Healthy Mortality:

RP-2000 Combined Healthy Mortality Table (Sex Distinct) Without Projection, with ages set forward six years below age 70 for males and four years below age 65 for

females.

Disabled Mortality:

RP-2000 Disability Mortality Table (Sex Distinct) Without

Projection.

Turnover:

Table developed from the 2006-2010 Actuarial Experience

Study.

Salary Increases:

5.0% compounded annually.

Retirement:

Based on the results of the 2006-2010 periodic actuarial experience study, it has been assumed that employees retire (or enter D.R.O.P.) one year after the earliest of: first, attainment of 30 years of service; second, the later of age 60 and completion of 10 years of service; third, attainment of age 65 and completion of 20 years of service; fourth, satisfaction of the "Rule of 80" (age plus service equals or exceeds 80). Employees who would have retired (or entered D.R.O.P.) based on the foregoing criteria on or prior to the valuation date are assumed to

retire three years after the valuation date.

Disability Incidence:

Table developed from the 2006-2010 Actuarial Experience

Study.

Note: The full rate set of assumptions for mortality, turnover and disability incidence is contained in the table in the following pages.

## CITY OF NEW ORLEANS EMPLOYEES' RETIREMENT SYSTEM ACTUARIAL VALUATION ASSUMPTION SET ASSUMED RATES OF MORTALITY, WITHDRAWAL AND DISABILITY INCIDENCE BY AGE AND GENDER

	MORTALITY		WITHDI	RAWAL	DISABII MORTAI	DISABILITY INCIDENCE	
AGE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	
15	.000357	.000190	.240400	.176300	.022571	.007450	.001650
16	.000366	.000191	.240400	.176300	.022571	.007450	.001650
17	.000373	.000192	.240400	.176300	.022571	.007450	.001650
18	.000375	.000194	.240400	.176300	.022571	.007450	.001650
19	.000376	.000197	.240400	.176300	.022571	.007450	.001650
20	.000378	.000201	.240400	.176300	.022571	.007450	.001650
20 21	.000378	.000207	.240400	.176300	.022571	.007450	.001650
	.000382	.000214	.240400	.176300	.022571	.007450	.001650
22	.000393	.000214	.240400	.176300	.022571	.007450	.001650
23		.000225	.240400	.176300	.022571	.007450	.001650
2 <b>4</b>	.000444	.000233	.240400	.176300	.022571	.007450	.001650
25	.000499	.000248	.240400	.176300	.022571	.007450	.001650
26	.000562		.240400	.176300	.022571	.007450	.001650
27	.000631	.000307		.176300	.022571	.007450	.001650
28	.000702	.000350	.240400		.022571	.007450	.001650
29	.000773	.000394	.240400	.176300		.007450	.001650
30	.000841	.000435	.122500	.128300	.022571		.001500
31	.000904	.000475	.122500	.128300	.022571	.007450	.001350
32	.000964	.000514	.122500	.128300	.022571	.007450	
33	.001021	.000554	.122500	.128300	.022571	.007450	.001200
34	.001079	.000598	.122500	.128300	.022571	.007450	.001050
35	.001142	.000648	.080000	.083200	.022571	.007450	.000900
36	.001215	.000706	.080000	.083200	.022571	.007450	.001050
37	.001299	.000774	.080000	.083200	.022571	.007450	.001200
38	.001397	.000852	.080000	.083200	.022571	.007450	.001350
39	.001508	.000937	.080000	.083200	.022571	.007450	.001500
40	.001616	.001029	.066800	.060000	.022571	.007450	.001350
41	.001734	.001124	.066800	.060000	.022571	.007450	.001800
42	.001860	.001223	.066800	.060000	.022571	.007450	.002250
43	.001995	.001326	.066800	.060000	.022571	.007450	.002700
44	.002138	.001434	.066800	.060000	.022571	.007450	.003150
45	.002449	.001550	.050000	.051700	.022571	.007450	.003300
46	.002667	.001676	.050000	.051700	.023847	.008184	.003750
47	.002916	.001852	.050000	.051700	.025124	.008959	.004200
48	.0023196	.002018	.050000	.051700	.026404	.009775	.004650
	.003190	.002207	.050000	.051700	.027687	.010634	.005100
<b>49</b>	.003024	.002424	.050000	.040000	.028975	.011535	.005250
50 51	.004200	.002717	.050000	.040000	.030268	.012477	.005400
51		.003090	.050000	.040000	.031563	.013456	.005400
52	.005273	.003478	.050000	.040000	.032859	.014465	.005550
53	.005945		.050000	.040000	.034152	.015497	.005550
54	.006747	.003923		.040000	.035442	.016544	.006450
55	.007676	.004441	.050000	.040000	.036732	.017598	.007350
56	.008757	.005055	.050000		.038026	.017598	.008250
57	.010012	.005814	.050000	.040000			.009150
58	.011280	.006657	.050000	.040000	.039334	.019710	.009150
59	.012737	.007648	.050000	.040000	.040668	.020768	
60	.014409	.008619	.050000	.040000	.042042	.021839	.009150
61	.016075	.009706	.050000	.040000	.043474	.022936	.009150
62	.017871	.009706	.050000	.040000	.044981	.024080	.009150
63	.019802	.009706	.050000	.040000	.046584	.025293	.009150
64	.022206	.009706	.050000	.040000	.048307	.026600	.009150
65	.022206	.009706	.050000	.040000	.050174	.028026	.009150

CONEFRY & COMPANY, LLC

# CITY OF NEW ORLEANS EMPLOYEES' RETIREMENT SYSTEM ACTUARIAL VALUATION ASSUMPTION SET ASSUMED RATES OF MORTALITY, WITHDRAWAL AND DISABILITY INCIDENCE BY AGE AND GENDER

MORTALITY		.ITY	WITHD	RAWAL	DISABII MORTAI	DISABILITY INCIDENCE	
AGE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	<u> </u>
	22222	.010954	.050000	.040000	.052213	.029594	.009150
66	.022206	.010954	.050000	.040000	.054450	.031325	.009150
67	.022206	.013445	.050000	.040000	.056909	.033243	.009150
68	.022206	.013445	.050000	.040000	.059613	.035335	.009150
69	.022206		.050000	.040000	.062583	.037635	.009150
70	.022206	.016742	0.000000	0.000000	.065841	.040140	.009150
71	.024570	.018579	0.000000	0.000000	.069405	.042851	.009150
72	.027281	.020665	0.000000	0.000000	.073292	.045769	.009150
73	.030387	.022970	0.000000	0.000000	.077512	.048895	.009150
74	.033900	.025458	0.000000	0.000000	.082067	.052230	.009150
75	.037834	.028106	0.000000	0.000000	.086951	.055777	.009150
76	.042169	.030966	0.000000	0.000000	.092149	.059545	.009150
77	.046906	.034105	0.000000	0.000000	.097640	.063545	.009150
78	.052123	.037595	0.000000	0.000000	.103392	.067793	.009150
79	.057927	.041506	0.000000	0.000000	.109372	.072312	.009150
80	.064368	.045879	0.000000	0.000000	.115544	.077135	.009150
81	.072041	.050780	0.000000	0.000000	.121877	.082298	.009150
82	.080486	.056294		0.000000	.128343	.087838	.009150
83	.089718	.062506	0.000000	0.000000	.134923	.093794	.009150
84	.099779	.069517	0.000000	0.000000	.141603	.100203	.009150
85	.110757	.077446	0.000000	0.000000	.148374	.107099	.009150
86	.122797	.086376	0.000000	0.000000	.155235	.114512	.009150
87	.136043	.096337	0.000000	0.000000	.162186	.122464	.009150
88	.150590	.107303	0.000000	0.000000	.169233	.130972	.009150
89	.166420	.119154	0.000000		.183408	.140049	.009150
90	.183408	.131682	0.000000	0.000000 0.000000	.199769	.149698	.009150
91	.199769	.144604	0.000000		.216605	.159924	.009150
92	.216605	.157608	0.000000	0.000000	.233662	.170433	.009150
93	.233662	.170433	0.000000	0.000000	.250693	.182799	.009150
94	.250693	.182799	0.000000	0.000000	.267491	.194509	.009150
95	.267491	.194509	0.000000	0.000000	.283905	.205379	.009150
96	.283905	.205379	0.000000	0.000000	.299852	.215240	.009150
97	.299852	.215240	0.000000	0.000000	.315296	.223947	.009150
98	.315296	.223947	0.000000	0.000000	.330207	.231387	.009150
99	.330207	.231387	0.000000	0.000000	.344556	.237467	.009150
100	.344556	.237467	0.000000	0.000000		.244834	.009150
101	.258628	.244834	0.000000	0.000000	.358628	.254498	.009150
102	.371685	.254498	0.000000	0.000000	.371685	.266044	.009150
103	.383040	.266044	0.000000	0.000000	.383040	.279055	.009150
104	.392003	.279055	0.000000	0.000000	.392003	.273033	.009150
105	.397886	.293116	0.000000	0.000000	.397886	.307811	.009150
106	.400000	.307811	0.000000	0.000000	.400000	.322725	.009150
107	.400000	.322725	0.000000	0.000000	.400000	.322725	.009150
108	.400000	.337441	0.000000	0.000000	.400000		.009150
109	.400000	.351544	0.000000	0.000000	.400000	.351544	.009150
110	.400000	.364617	0.000000	0.000000	.400000	.364617	.007130

#### EXHIBIT III

#### January 1, 2016 ACCOUNTING INFORMATION FOR FINANCIAL STATEMENTS

This section is included to provide information required by the Governmental Accounting Standards Board Statement Number 25 and is provided for historical continuity and consistency. GASB Statements 25 and 27 have been replaced by GASB Statements 67 and 68. These two statements have made extensive and fundamental changes in the nature of the financial disclosure requirements and have effectively removed the actual funding aspects of the plan from any direct involvement. The effective date of GASB 67 (with respect to the plan itself) was the first Plan Year beginning after June 15, 2013 (namely, the Plan Year beginning January 1, 2014). The effective date of GASB 68 (with respect to the City of New Orleans as sponsoring employer) is the first Fiscal Year beginning after June 15, 2014 (namely, the Fiscal Year beginning January 1, 2015). The actuarial information for financial disclosure as required by these GASB Statements will be presented in a separate report.

The Projected Benefit Obligation (PBO) as of December 31, 2015 is based on all of the assumptions outlined in Exhibit II including future salary growth. The Unfunded Accrued Liability (UAL) is that used in funding the plan and is developed in Table 5.

#### SCHEDULE OF FUNDING PROGRESS

		<u>1/01/2015</u>	<u>1/01/2016</u>
Intere	est Assumption	7.50%	7.50%
RATI	O OF ENTRY AGE NORMAL COST UAAL TO	VALUATION PAYROLL:	
[1]	EAN Actuarial Accrued Liability (AAL)	\$ 540,175,678	\$ 562,686,405
[2]	Actuarial Value of Assets	352,915,906	367,274,433
[3]	Unfunded Actuarial Accrued Liability (UAAL):		
	[1] - [2]	187,259,772	195,411,952
[4]	Valuation Annual Payroll	97,243,842	105,691,915
[5]	Ratio: [3] divided by [4]	192.6%	184.9%
<u>FUN</u>	DED RATIO:		
[1]	Projected Benefit Obligation (PBO)		
	Inactive Plan Participants	\$ 371,245,139	\$ 368,289,847
	Active Plan Participants	119,540,358	139,232,478
	Total PBO	\$ 490,785,497	\$ 507,522,325
[2]	Actuarial Value of Assets [Table 3]	352,915,9066	367,274,453
[3]	Funded Ratio: [2] divided by [1]	71.9%	72.4%

### EXHIBIT IV

ACTIVE AND INACTIVE PARTICIPANT PROFILES

CITY OF NEW ORLEANS EMPLOYEES RETIREMENT SYSTEM 1/1/2016 ACTIVE PARTICIPANT AGE VS SERVICE GRID JANUARY 1, 2016 ACTUARIAL VALUATION

----- ALL ACTIVE PARTICIPANTS -----

AVERAGE SALARY	16,999.65	23,445.22	30,786.58	41,087.78	45,839.05	44,671.74	46,640.70	43,946.80	44,855.02	43,177.23	41,651.62	38,045.31	31,030.43	32,671.00	1 1 1 1	41,460.12
TOTAL ANNUAL SALARIES	84,998.25	2,485,193.77 2	10,159,572.55 3	13,805,493.01 4	13,522,520.67 4	12,552,759.58 4	13,385,880.28 4	14,502,444.16 4	13,142,520.12 4	8,462,737.99 4	3,040,568.33 4	760,906.28 3	217,213.04 3	98,012.99 3		106,220,821.02 4
TOTAL	5	106	330	336	295	281	287	330	293	196	73	20	7	м	:	2,562
+07	0	0	0	0	0	0	0	0	0	7	-	0	0	0	1 1	52
35-39	0	0	0	0	0	0	0	<b></b>	9	4	0	0	0	0	!	-
30-34	0	0	0	0	0	0	-	14	13	æ	M	0	0	0	1 1 1	39
RVICE	0	0	0	0	0	0	22	42	77	14	2	0	0	0	1	127
OF SE 20-24		0	0	<del>-</del>	-	10	20	29	35	9	2	<b>,-</b>	-	<b>~</b> -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	107
15-19		0	0	0	21	34	43	7 7	28	19	м	2	<b>-</b>	0	1 1	193
10-14	0	0	80	13	27	31	54	35	27	22	14	M	2	0	1	206
5-6	0	2	45	89	99	61	72	99	55	51	25	6	2	-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	240
7-0	12	104	277	233	182	145	105	103	85	89	20	5	-	-	1	1,334
A G E	0-19	20-24	25-29	30-34	35-39	77-07	65-65	50-54	55-59	79-09	69-59	70-74	75-79	80-84	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

CITY OF NEW ORLEANS EMPLOYEES RETIREMENT SYSTEM	1/1/2016 INACTIVE PARTICIPANT PROFILE	JANUARY 1, 2016 ACTUARIAL VALUATION	
U			

----- ORDINARY RETIREMENT

AGE	0-4	2-6	10-14	YEARS SINCE 15-19	ICE RETIREMENT 20-24 25	MENT 25-29	30-34	35-39	+07	TOTAL	TOTAL ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
67-57	<b>-</b>	0	0	0	0	0	0	0	0	<b>-</b>	8,870.28	8,870.28
50-54	12	2	0	0	0	0	0	0	0	14	595,189.68	42,513.55
55-59	36	24	9	0	0	0	0	0	0	99	2,261,029.68	34,258.03
79-09	80	65	7.0	4	0	0	0	0	0	219	6,203,997.60	28,328.76
69-59	7.4	117	147	54	0	0	0	0	0	362	9,543,898.44	26,364.36
70-74	56	55	137	77	4	7	0	0	0	273	5,425,973.52	19,875.36
75-79	9	<u>-</u>	29	73	9	25	0	0	0	188	2,582,867.16	13,738.66
80-84	2	9	13	9 7	37	25	ĸ	0	0	132	1,931,023.20	14,628.96
85-89	-	2	6	-	27	3.7	9	0	0	66	1,241,804.52	13,352.74
+06	0	-	0	9	2	3.7	17	∞	0	72	709,684.44	9,856.73
	1 1 1	;	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1 1 1	1 1 1 1	1 1	1	:	1 1 3 1		
	238	283	677	208	7.7	131	26	∞	0	1,420	30,504,338.52	21,481.93

	AVERAGE	ANNUAL BENEFIT	7,964.64	4,523.43	6,131.76	3,420.82	15,215,71	15,174.73	14,438.79	12,615.98	13,649.86	13,503.13	13,307.45	8,919.06	
	TOTAL	ANNUAL BENEFIT	31,858.56	18,093.72	30,658.80	20,524.92	152,157.12	288,319.80	433,163.76	302,783.40	423,145.68	351,081.36	465,760.68	187,300.20	
		TOTAL	4	7	5	9	10	19	3.0	54	31	56	35	21	;
SYSTEM		40+	0	0	0	0	0	0	0	0	0	0	0	7	4 1 4 1
-=5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	35-39	0	0	0	0	0	-	-	0	0	0	4	9	 
E S I C R I	ı ES	30-34	0	0	-	-	<del></del>	0	-	0	2	4	٥	٥	:
LEANS EMPLINACTIVE P	- BENEFICIAR	25-29	-	~	2	2	-	-	М	2	ಐ	13	16	2	1
OF NEW ORE 1/1/2016 I JANUARY 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	E RETIREM 20-24	0	8	0	-	0	-	-	2	9	23	23	2	
CITY		YEARS SINCE 15-19	0	0	0	ζ	-	5	9	9	6	4	0	0	
		10-14	<del></del>	0	2	0	3	4	13	0	4	-	2	0	!
		5-9	2	0	0	-	<b>~</b>	4	2	2	0	-	-	0	; ; ;
			0	0	0	0	3	23	33	0	-	0	0	0	1 1 1 1
21		AGE	30-34	35-39	77-07	50-54	55-59	79-09	69-59	70-24	62-52	80-84	85-89	+06	

12,580.69

2,704,848.00

CITY OF NEW ORLEANS EMPLOYEES RETIREMENT SYSTEM 1/1/2016 INACTIVE PARTICIPANT PROFILE JANUARY 1, 2016 ACTUARIAL VALUATION

----- DISABILITY RETIREMENT -----

AVERAGE ANNUAL	BENEFIT	25,148.56	24,199.45	16,409.69	14,335.32	11,838.08	12,947.04	9,731.00	7,017.75	9,671.04	8,394.40	L t t	13,319.90
TOTAL Annual	BEREFIT	75,445.68	266,193.96	229,735.68	444,394.92	438,008.88	401,358.12	194,619.96	49,124.28	87,039.36	25,183.20		2,211,104.04
	TOTAL	3	11	14	31	37	31	20	7	٥	ĸ	1 1 1	166
1 1 1 1 1	+0+	0	0	0	0	0	<b>~</b>	0	-	-	0	1 1 1	M
1	35-39	0	0	0	0	0	2	-	2	8	2	;	10
	30-34	0	0	<b>-</b>	4	5	2	3	2	2	<b>~</b>	1	20
MENT	25-29	0	-	-	~	2	æ	9	0	2	0	1	26
	20-24 25	0	0	0	٣	9	25	7	2	-	0	1	54
YEARS SINC		-	0	-	7	9	80	M	0	0	0	1	23
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10-14	0	0	3	6	12	50	0	0	0	0	1	29
1 1 1 1	5-9	-	M	9	۲	-	0	0	0	0	0	1 1 1	16
1 1 1 1	0 - 4	-	7	7	25	0	0	0	0	0	0	1	15
	AGE	69-59	50-54	55-59	79-09	69-59	70-74	75-79	80-84	85-89	+06	1	

CITY OF NEW ORLEANS EMPLOYEES RETIREMENT SYSTEM 1/1/2016 INACTIVE PARTICIPANT PROFILE JANUARY 1, 2016 ACTUARIAL VALUATION

SEPARATION RETIREMENT	TOTAL AVERAGE YEARS SINCE RETIREMENT	0 0 0 0 20 261,728.40 13,086.42	0 0 0 0 0 44 443,607.96 10,082.00	0 0 0 0 0 31 304,507.44 9,822.82	10 0 0 0 0 12 105,818.16 8,818.18	1 10 0 0 0 12 103,182.12 8,598.51	1 1 6 0 0 0 8 49,899.36 6,237.42	0 0 1 9 0 0 10 48,838.20 4,883.82		11 7 9
1	+0+	_	•	•	•				1	
LN.	35-39	0	0	0	0	0	0	0	1	0
RETIREME	30-34	0	0	0	0	0	0	6	1	٥
PARATION	1ENT 25-29	0	0	0	0	0	9	-	1 1 1 1	7
S	SE RETIREN 20-24	0	0	0	0	10	-	0	! ! !	-
	YEARS SIN( 15-19	0	0	0	10	<del></del>	<del></del>	0	1 1	12
	10-14	-	0	19	2	<b>-</b> -	0	0	:	23
	5-9	0	29	٥	0	0	0	0	1 1 1 1	38
	7-0	19	15	М	0	0	0	0	:	3.7
	AGE	79-09	69-59	70-74	75-79	80-84	85-89	+06	1 1 1 1	

CITY OF NEW ORLEANS EMPLOYEES RETIREMENT SYSTEM 1/1/2016 INACTIVE PARTICIPANT PROFILE JANUARY 1, 2016 ACTUARIAL VALUATION

..... D.R.O.P.

AVERAGE	BENEFIT	36,862.65	38,679.52	34,080.80	24,763.35	17,162.68	34,815.84	5,836.08	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	32,886.63
TOTAL		258,038.52	1,276,424.04	681,615.96	520,030.44	51,488.04	34,815.84	5,836.08	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2,828,248.92
	TOTAL	7	33	20	21	3	-	-	1 1 1	86
1 1 1 1 1	+0+	0	0	0	0	0	0	0		0
1 1 1 1 1 1	35-39	0	0	0	0	0	0	0	;	0
1 1 1 1 1 1 1	30-34	0	0	0	0	0	0	0	1 1 1 1 1	0
: : : :	25-29	0	0	0	0	0	0	0	,	0
	. 7	0	0	0	0	0	0	0	;	0
VEADO CTACE	15-19	0	0	0	0	0	0	0		0
		0	0	0	0	0	0	0	;	0
	5-9	2	11	4	11	м	0	0		31
; ; ; ;	0 - 4	5	22	16	10	0	<b>-</b>	-	;	55
	AGE	50-54	55-59	99-09	69-69	70-74	75-79	80-84	1	

CITY OF NEW ORLEANS EMPLOYEES RETIREMENT SYSTEM 1/1/2016 INACTIVE PARTICIPANT PROFILE JANUARY 1, 2016 ACTUARIAL VALUATION

----- TERMINATED VESTED -----

ERAG NNUA NEFI	11,022.72	2,118.00	5,509.92	7,063.89	8,931.50	9,848.70	6,153.81	1,458.72		7,942.81
TOTAL ANNUA ENEFI	11,022.72	2,118.00	38,569.44	105,958.32	214,355.88	118,184.40	24,615.24	1,458.72	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	516,282.72
TOTAL	· · · · · · · · · · · · · · · · · · ·	-	2	15	54	12	7	-		65
+07	0	0	0	0	0	0	0	-	! ! !	-
35-39	0	0	0	0	0	0	0	0	! ! !	0
30-34	0	0	0	0	0	0	0	0	1 1 1	0
TION 25-29	0	0	0	0	0	0	-	0	1 1 1	<b>-</b>
SINCE TERMINATION 9 20-24 25-3	0	0	0	0	2	8	0	0	1 1 1 1	īΟ
YEARS SINC 15-19	0	0	0	2	7	M	0	0	1 1 2 5 1	12
10-14	0	-	7	12	11	Z	М	0	1 1 1	39
5-9	0	0	0	•	4	0	0	0	1 1 1	72
0-4	-	0	0	0	0	-	0	0	1 1 1	8
AGE	35-39	77-07	45-49	50-54	55-59	79-09	69-59	80-84	1 1 1 1 1	

EXHIBIT V	

MARKET VALUE AND ACTUARIAL VALUE ASSET INVESTMENT PERFORMANCE

CITY OF NEW ORLEANS EMPLOYEES' RETIREMENT SYSTEM

PERFORMANCE	
ESTIMATED MARKET VALUE INVESTMENT PERFORMANCE	BY CALENDAR YEAR
IMATED MARKET	ΒY
ESTI	

MARKET VALUE INV. PERFORMANCE FOR YEAR	10.4631% 3.7646%	18.0881% 9.9605% 13.1489% -1.5128% 20.9959%	13.6137% 15.9959% 12.5319% 7.7362% 1.2736%	-3.3353% -6.7492% 21.3009% 9.9292% 4.5649%	11.0482% 8.6191% -30.1839% 23.1323% 14.1131%	-1.3031% 11.5550% 15.1698% 4.1632% -3.8803%
ENDING MARKET VALUE	146,059,932 149,602,231	174, 083, 849 190, 000, 562 212, 828, 714 206, 686, 758 248, 331, 601	278,446,227 319,142,011 355,566,389 375,802,388 371,909,534	348, 790, 613 314, 036, 652 366, 380, 685 390, 480, 525 392, 146, 254	404, 591, 034 412, 797, 925 267, 341, 275 310, 155, 431 334, 408, 848	317,609,637 338,607,461 372,455,614 370,750,070 339,098,650
MARKET VALUE INV. INCOME FOR YEAR	13,892,547 5,462,388	26,846,336 17,272,173 24,849,967 -3,197,363 43,229,352	33,571,866 44,255,400 39,783,953 27,236,487 4,731,448	-12,222,626 -23,149,025 65,492,332 35,797,958 17,464,439	41,708,472 33,770,375 -120,890,979 59,869,583 42,485,923	-4,276,183 35,842,303 50,131,156 15,155,075 -14,044,748
NET EXTERNAL CASH FLOW FOR YEAR	-1,219,181 -1,920,089	-2,364,718 -1,355,460 -2,021,815 -2,944,593 -1,584,509	-3,457,240 -3,559,616 -3,359,575 -7,000,488 -8,624,302	-10,896,295 -11,604,936 -13,148,299 -11,698,118 -15,798,710	-29, 263, 702 -25, 563, 484 -24, 565, 671 -17, 055, 427 -18, 232, 506	-12,523,028 -14,844,479 -16,283,003 -16,860,619 -17,606,672
TRANSFERS OUT FOR YEAR *	59,880 0	213,613 117,862 186,607 297,357 863,462	1,687,069 460,082 162,565 286,607 828,404	1,317,841 1,082,938 335,010 520,140 286,029	2,042,721 1,563,418 863,952 791,534 1,411,074	1,168,345 815,100 774,977 1,685,047 1,255,560
COLA PAID FOR YEAR	924,842 940,873	1,762,120 1,503,162 1,326,681 1,338,486 1,368,009	1,414,345 1,458,386 1,465,548 1,633,925 1,701,048	3,150,264 3,152,822 3,276,815 3,432,714 3,553,237	3,517,039 4,390,096 4,379,663 3,808,797 3,269,131	2,856,770 2,242,059 2,480,991 2,224,382 2,053,895
TOTAL BENEFIT PAYMENTS FOR YEAR	11,546,681 12,398,801	12,106,676 11,896,989 12,573,696 13,254,585 13,119,259	13, 135, 573 13, 785, 309 14, 045, 949 15, 128, 484 16, 260, 880	16,224,519 18,167,527 20,628,009 20,252,982 22,590,610	32, 138, 912 28, 270, 387 28, 375, 247 30, 342, 718 32, 158, 476	34,784,101 37,639,270 39,009,121 41,129,501 44,857,248
TRANSFERS IN FOR YEAR	6,918 15,663	138,771 135,055 62,742 60,643 214,735	159,681 44,423 93,077 798,061 883,698	136,633 632,479 782,396 144,249 591,914	1,188,916 779,955 632,232 1,418,335 1,792,875	2,281,255 1,685,729 1,483,869 1,677,851 1,622,658
EMPLOYEE CONTRIBUTIONS FOR YEAR	2,226,412 2,456,143	2,639,973 2,769,427 2,728,107 2,646,225 2,921,784	2,761,098 3,036,531 3,481,930 3,717,531 3,237,744	3,289,714 3,500,753 3,660,906 4,771,376 3,642,894	2,735,241 2,986,023 3,429,766 3,855,051 3,781,490	4,087,034 5,155,380 5,953,535 6,193,573 6,490,092
EMPLOYER CONTRIBUTIONS FOR YEAR	9,078,892 8,947,779	8,938,947 9,258,071 9,274,320 9,238,967 10,629,702	9,858,968 9,063,207 8,739,480 5,532,936 6,044,588	6,369,982 6,665,119 6,648,233 7,592,093 6,396,358	4,510,813 4,894,439 4,991,193 12,614,236 13,031,810	19,917,899 19,010,841 18,544,682 20,306,887 22,447,281
BEGINNING MARKET VALUE	133,386,566 146,059,932	149,602,231 174,083,849 190,000,562 212,828,714 206,686,758	248,331,601 278,446,227 319,142,011 355,566,389 375,802,388	371,909,534 348,790,613 314,036,652 366,380,685 390,480,525	392, 146, 264 404, 591, 034 412, 797, 925 267, 341, 275 310, 155, 431	334, 408, 848 317, 609, 637 338, 607, 461 372, 455, 614 370, 750, 070
D PLAN YEAR ENDING	12/31/89 12/31/90	12/31/91 12/31/92 12/31/93 12/31/94 12/31/95	12/31/96 12/31/97 12/31/98 12/31/99 12/31/00	12/31/01 12/31/02 12/31/03 12/31/04 12/31/05	12/31/06 12/31/07 12/31/08 12/31/09 12/31/10	12/31/11 12/31/12 12/31/13 12/31/14 12/31/15

Number of Years Included: 27

501,068,609

-295,356,535

CITY OF NEW ORLEANS EMPLOYEES' RETIREMENT SYSTEM ESTIMATED INVESTMENT PERFORMANCE BY MARKET VALUE AND ACTUARIAL VALUE OF ASSETS BY CALENDAR YEAR

ACTUARIAL ASSETS INV. PERF. FOR YR	8.5782% 6.0087%	5.6233% 5.7434% 5.2671% 6.3801% 23.8138%	11.1240% 12.9499% 12.2379% 11.8090% 9.9516%	9.5829% 10.5539% 5.3943% 4.0244%	4.9366% 5.2956% 1.9883% 6.0571% 4.0188%	2.1023% 1.9801% 2.5655% 1.3105% 9.2924%
ENDING ACTUARIAL VALUE OF ASSETS	145,400,919 152,159,905	158, 285, 109 165, 981, 703 172, 649, 085 180, 625, 703 221, 866, 292	242,897,086 270,561,907 300,107,935 328,133,916 351,735,022	374,022,897 384,415,399 402,773,504 412,486,855 412,970,222	403,370,965 398,490,554 381,604,003 387,146,017 384,105,611	379,526,159 372,049,545 365,102,483 352,915,906 367,274,453
ACTUARIAL VALUE MEAN FUND	134,474,947 144,440,875	150,977,546 157,607,379 164,970,796 171,176,789 179,833,449	220,137,672 241,117,278 268,882,120 296,607,691 323,821,765	346,286,875 368,220,429 370,269,833 396,924,445 404,587,500	398,338,371 390,589,223 386,207,719 373,076,290 378,029,764	377,844,097 372,103,920 363,908,044 356,672,174 344,102,570
MARKET VALUE MEAN FUND	132,776,976 145,099,888	148,419,872 173,406,119 188,989,655 211,356,418 205,894,504	246,602,981 276,666,419 317,462,224 352,066,145 371,490,237	366,461,387 342,988,145 307,462,503 360,531,626 382,581,170	377,514,413 391,809,292 400,515,090 258,813,562 301,039,178	328,147,334 310,187,398 330,465,960 364,025,305 361,946,734
MARKET VALUE INV. PERF. FOR YEAR	10.4631% 3.7646%	18.0881% 9.9605% 13.1489% -1.5128% 20.9959%	13.6137% 15.9959% 12.5319% 7.7362% 1.2736%	-3.3353% -6.7492% 21.3009% 9.9292% 4.5649%	11.0482% 8.6191% -30.1839% 23.1323% 14.1131%	-1.3031% 11.5550% 15.1698% 4.1632% -3.8803%
ENDING Market value	146,059,932 149,602,231	174,083,849 190,000,562 212,828,714 206,686,758 248,331,601	278,446,227 319,142,011 355,566,389 375,802,388 371,909,534	348,790,613 314,036,652 366,380,685 390,480,525 392,146,254	404,591,034 412,797,925 267,341,275 310,155,431 334,408,848	317,609,637 338,607,461 372,455,614 370,750,070 339,098,650
YEAR ENDING	12/31/1989 12/31/1990	12/31/1991 12/31/1992 12/31/1993 12/31/1994 12/31/1995	12/31/1996 12/31/1997 12/31/1998 12/31/1999 12/31/1999	12/31/2001 12/31/2002 12/31/2003 12/31/2004 12/31/2005	12/31/2006 12/31/2007 12/31/2008 12/31/2009 12/31/2010	12/31/2011 12/31/2012 12/31/2013 12/31/2014 12/31/2015

CITY OF NEW ORLEANS EMPLOYEES' RETIREMENT SYSTEM
ESTIMATED INVESTMENT PERFORMANCE
BY CALENDAR YEAR

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	YEAR	- 2	W4W9V	8 6 11 12 17	13 15 17	18 20 21 22	23 24 25 27
ALUE ANCE	AVERAGE	8.58%	6.73% 6.48% 6.24% 8.61%	8.92% 9.36% 9.64% 9.84%	9.83% 9.55% 9.61% 9.35%	8.79% 8.61% 8.27% 8.16% 7.97%	7.71% 7.46% 7.26% 7.03% 7.11%
RIAL ASSET VALUE MENT PERFORMANCE	CUMULATIVE	8.58%	21.57% 28.56% 35.33% 43.96% 78.25%	98.07% 123.72% 151.10% 180.76% 208.70%	238.28% 258.49% 296.32% 317.70% 334.51%	355.96% 380.10% 389.65% 419.31% 440.18%	451.53% 462.46% 476.89% 484.44% 538.75%
ACTUARIAL INVESTMENT	FOR YEAR	8.58%	5.62% 5.74% 5.27% 6.38% 23.81%	11.12% 12.95% 12.24% 11.81% 9.95%	9.58% 5.97% 10.55% 5.39% 4.02%	4.94% 5.30% 1.99% 6.06% 4.02%	2.10% 1.98% 2.57% 1.31% 9.29%
ANCE	AVERAGE	10.46% 7.06%	10.62% 10.45% 10.99% 8.80% 10.46%	10.85% 11.41% 11.52% 11.17%	9.20% 7.97% 8.81% 8.88%	8.76% 8.75% 6.37% 7.11%	7.03% 7.21% 7.52% 7.39% 6.95%
MARKET VALUE INVESTMENT PERFORMANCE	CUMULATIVE	10.46% 14.62%	35.35% 48.84% 68.41% 65.86% 100.68%	128.00% 164.47% 197.62% 220.64% 224.73%	213.90% 192.71% 255.06% 290.31% 308.13%	353.22% 392.29% 243.70% 323.20% 382.93%	376.63% 431.71% 512.37% 537.86% 513.11%
INVEST	FOR YEAR	10.4631% 3.7646%	18.0881% 9.9605% 13.1489% -1.5128% 20.9959%	13.6137% 15.9959% 12.5319% 7.7362% 1.2736%	-3.3353% -6.7492% 21.3009% 9.9292% 4.5649%	11.0482% 8.6191% -30.1839% 23.1323% 14.1131%	-1.3031% 11.5550% 15.1698% 4.1632% -3.8803%
	MARKET VALUE	146,059,932 149,602,231	174,083,849 190,000,562 212,828,714 206,686,758 248,331,601	278,446,227 319,142,011 355,566,389 375,802,388 371,909,534	348, 790, 613 314, 036, 652 366, 380, 685 390, 480, 525 392, 146, 254	404,591,034 412,797,925 267,341,275 310,155,431 334,408,848	317,609,637 338,607,461 372,455,614 370,750,070 339,098,650
MARKET VALUE	INV. INCOME FOR YEAR	13,892,547 5,462,388	26,846,336 17,272,173 24,849,967 -3,197,363 43,229,352	33,571,866 44,255,400 39,783,953 27,236,487 4,731,448	-12,222,626 -23,149,025 65,492,332 35,797,958 17,464,439	41,708,472 33,770,375 -120,890,979 59,869,583 42,485,923	-4,276,183 35,842,303 50,131,156 15,155,075 -14,044,748
NET EXTERNAL	FOR YEAR	-1,219,181 -1,920,089	-2,364,718 -1,355,460 -2,021,815 -2,944,593 -1,584,509	-3,457,240 -3,559,616 -3,359,575 -7,000,488 -8,624,302	-10,896,295 -11,604,936 -13,148,299 -11,698,118	-29, 263, 702 -25, 563, 484 -24, 565, 671 -17, 055, 427 -18, 232, 506	-12,523,028 -14,844,479 -16,283,003 -16,860,619 -17,606,672
	BEGINNING MARKET VALUE	133,386,566 146,059,932	149, 602, 231 174, 083, 849 190, 000, 562 212, 828, 714 206, 686, 758	248,331,601 278,446,227 319,142,011 355,566,389 375,802,388	371,909,534 348,790,613 314,036,652 366,380,685 390,480,525	392,146,264 404,591,034 412,797,925 267,341,275 310,155,431	334, 408, 848 317, 609, 637 338, 607, 461 372, 455, 614 370, 750, 070
39	FLAN TEAK ENDING	12/31/1989 12/31/1990	12/31/1991 12/31/1992 12/31/1993 12/31/1994 12/31/1995	12/31/1996 12/31/1997 12/31/1998 12/31/1999 12/31/2000	12/31/2001 12/31/2002 12/31/2003 12/31/2004 12/31/2005	12/31/2006 12/31/2007 12/31/2008 12/31/2009 12/31/2010	12/31/2011 12/31/2012 12/31/2013 12/31/2014 12/31/2015

Number of Years Included: 27

#### EXHIBIT VI

DEMONSTRATION OF AVAILABLE "RESERVE" FOR COST OF LIVING PAYMENTS

PURSUANT TO ORDINANCE SECTION 114-204 (7)

CITY OF NEW ORLEANS EMPLOYEES! RETIREMENT SYSTEM DEMONSTRATION OF AVAILABLE COLA "RESERVE" PURSUANT TO ORDINANCE SECTION 114-204 (7) BY CALENDAR YEAR

ACTUARIAL PRESENT VALUE OF "PERMANENT" COLA INCREASES	9,942,496 553,302 1,240,046 1,831,186 1,845,499 1,816,172 4,366,253 0	21,392,954
HYPOTHETICAL MARKET VALUE AT END OF YEAR ASSUMING NO COLA PAYMENTS AND 3.5% ANNUAL RETURN SINCE 1/1/1989	137, 739, 421 141, 547, 483 145, 857, 665 151, 086, 664 155, 644, 182 164, 770, 055 164, 770, 055 172, 165, 263 176, 917, 495 176, 917, 495 176, 917, 495 177, 541, 905 165, 008, 200 158, 261, 537 167, 451, 927 82, 475, 300 75, 476, 525 65, 256, 005 53, 456, 605 53, 945, 403	
ACTUAL ENDING MARKET VALUE	146, 059, 932 149, 602, 231 174, 608, 849 190, 000, 562 212, 828, 714 206, 686, 758 278, 446, 227 319, 142, 1011 355, 566, 389 371, 909, 534 375, 802, 388 375, 802, 388 376, 806, 525 392, 146, 254 412, 797, 925 392, 146, 254 412, 797, 925 310, 155, 431 334, 408, 848 317, 609, 637 338, 607, 461 372, 455, 614 372, 455, 614 370, 750, 070	
ACTUAL NET EXTERNAL CASH FLOW DURING YEAR	-1,219,181 -1,920,089 -2,364,718 -2,021,815 -2,944,593 -1,584,509 -3,559,616 -3,559,616 -3,559,616 -3,559,616 -1,64,302 -11,64,302 -11,64,302 -11,64,302 -11,64,302 -11,64,302 -11,64,302 -11,64,302 -11,64,479 -12,523,028 -14,844,479 -16,283,003 -16,283,003 -16,844,479 -17,055,427 -17,055 -17,055 -17,055 -17,055 -17,05	
ACTUAL COLA PAID DURING YEAR	924, 842 940, 873 1, 762, 120 1, 326, 681 1, 338, 486 1, 4414, 345 1, 701, 048 3, 152, 822 3, 152, 822 3, 553, 237 4, 390, 096 4, 390, 096 4, 390, 096 4, 390, 096 5, 224, 059 2, 224, 085 2, 224, 382 2, 224, 382 2, 224, 382 2, 224, 382 2, 224, 382 2, 224, 382	64,626,100
BEGINNING MARKET VALUE	133, 386, 566 146, 059, 932 149, 602, 231 174, 083, 849 190, 000, 562 212, 828, 714 226, 686, 758 246, 331, 601 275, 802, 388 371, 601 375, 566, 389 375, 566, 389 376, 685 390, 480, 525 390, 480, 525 390, 480, 525 310, 155, 431 338, 607, 461 372, 455, 614 370, 750, 070	rs:
PLAN YEAR ENDING	12/31/1989 12/31/1990 12/31/1991 12/31/1994 12/31/1994 12/31/1995 12/31/1999 12/31/2000 12/31/2000 12/31/2000 12/31/2000 12/31/2000 12/31/2000 12/31/2000 12/31/2000 12/31/2010 12/31/2010 12/31/2010 12/31/2010	TOTALS

Number of Years Included: 27

#### **CERTIFICATION**

The foregoing report presents fairly the actuarial position of the City of New Orleans Employees' Retirement System as of January 1, 2016 in accordance with generally accepted actuarial principles, applied on a basis consistent with that of the preceding valuation, except where noted. In our opinion, each actuarial assumption used in preparing the liabilities and estimated costs is reasonably related to the historical experience of the plan and to reasonable future expectations and represents our best estimate of anticipated experience under the plan.

CONEFRY & COMPANY, L.L.C.

Michael A. Conefry, FCA, ASA, MAAA, MSPA

Enrollment Number 14-1235

New Orleans, Louisiana May, 2016

V1512.CNO