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

## **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> EMPLOYEES' RETIREMENT SYSTEM

## **SUMMARY**

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

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Actuarial Value of Assets	\$ 367,274,453	Page 6

## II. EMPLOYER AND EMPLOYEE CONTRIBUTIONS for the Plan Year Beginning January 1, 2016

Recommended Total Contribution (As % of Payroll)	\$ 29,054,811 (27.490%)	Page 10
Expected Total Employee Contributions (As % of Payroll)	\$ 6,341,296 (6.000%)	Page 10
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III.	NET ACTUARIAL EXPERIENCE for		
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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

Assets	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	<u>\$ 339,098,650</u> *

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

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## 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 A	Assets	
As of December	31,	2015	

Plan Year	Beginning Market	Net External Cash Flow	Market Value Inv. Income	Ending Market	Market Value Performance	e Adj. Market Value
Ending	Value	For Year	For Year	Value	For Year	<u>Component</u>
_						-
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

II.

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.

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## <u>Table 4</u> <u>Entry Age Normal Cost for Plan Year</u> <u>Beginning January 1, 2016</u>

(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 5Entry Age Normal Cost Unfunded Actuarial Liabilityas 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 6Total Required Contribution for thePlan Year Beginning January 1, 2016

(1)	Normal Cost (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%)	*
*	Expressed as a percentage of annual particip	ant	payroll of S	\$105,691,915	

## <u>NET ACTUARIAL EXPERIENCE</u> 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

(1)	Total Plan Actuarial Cost Percentage 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%

## Table 8Net Actuarial Experience by Componentfor the Plan Year Ending December 31, 2015

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	-1.022%

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## EXHIBIT I

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

## SUMMARY OF PLAN PROVISIONS

<u>EFFECTIVE DATE</u> :	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 fulltime 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) <u>Minimum Benefit</u>: 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) <u>Cost-of-Living</u>: 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:	
<u>Eligibility</u> :	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.

## DEATH BENEFITS:

Note:

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

#### SEPARATION BENEFITS:

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.

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.

1) 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. If the 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, guarterly, 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

<u>April 27, 1978</u>	Monthly retirement benefit shall not exceed average monthly compensation of a member.
January 1, 1979	Mandatory retirement age is 70.
<u>April 29, 1979</u>	Defined "Average Compensation" and "Based earned compensation".
	Allows for purchase of credit for prior military service.
<u>September 17, 1981</u>	"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.
<u>January 1, 1983</u>	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.
<u>January 1, 1987</u>	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.
<u>May 21, 1987</u>	"Average Compensation" re-defined for computing benefits from September 30, 1986 through November 30, 1989.

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

<u>May 21, 1987</u>	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.
<u>January 1, 1994</u>	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.
<u>April 1, 1997</u> June 1, 1999	Membership extended to District Attorney's Office. Minimum benefit of \$300 per month for retirees with 10 years of service at retirement.

## 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.

## <u>EXHIBIT II</u>

## <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		WITH	RAWAL	DISABI MORTA	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	.000376	.000194	.240400	.176300	.022571	.007450	.001650
19	.000376	.000197	.240400	.176300	.022571	.007450	.001650
20	.000378	.000201	.240400	.176300	.022571	.007450	.001650
21	.000382	.000207	.240400	.176300	.022571	.007450	.001650
22	.000393	.000214	.240400	.176300	.022571	.007450	.001650
23	.000412	.000223	.240400	.176300	.022571	.007450	.001650
24	.000444	.000235	.240400	.176300	.022571	.007450	.001650
25	.000499	.000248	.240400	.176300	.022571	.007450	.001650
26	.000562	.000264	.240400	.176300	.022571	.007450	.001650
27	.000631	.000307	.240400	.176300	.022571	.007450	.001650
28	.000702	.000350	.240400	.176300	.022571	.007450	.001650
29	.000773	.000394	.240400	.176300	.022571	.007450	.001650
30	.000841	.000435	.122500	.128300	.022571	.007450	.001650
31	.000904	.000475	.122500	.128300	.022571		
32	.000964	.000514	.122500	.128300		.007450	.001500
33	.001021	.000554			.022571	.007450	.001350
33 34	.001021		.122500	.128300	.022571	.007450	.001200
	.001079	.000598	.122500	.128300	.022571	.007450	.001050
35		.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	.003196	.002018	.050000	.051700	.026404	.009775	.004650
49	.003624	.002207	.050000	.051700	.027687	.010634	.005100
50	.004200	.002424	.050000	.040000	.028975	.011535	.005250
51	.004693	.002717	.050000	.040000	.030268	.012477	.005400
52	.005273	.003090	.050000	.040000	.031563	.013456	.005400
53	.005945	.003478	.050000	.040000	.032859	.014465	.005550
54	.006747	.003923	.050000	.040000	.034152	.015497	.005550
55	.007676	.004441	.050000	.040000	.035442	.016544	.006450
56	.008757	.005055	.050000	.040000	.036732	.017598	.007350
57	.010012	.005814	.050000	.040000	.038026	.018654	.008250
58	.011280	.006657	.050000	.040000	.039334	.019710	.009150
59	.012737	.007648	.050000	.040000	.040668	.020768	.009150
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
						.020020	· 009130

CONEFRY & COMPANY, LLC

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

ASSUME	D RATES	5 OF	MORTALITY,	WITHDRAWAL	AND	DISABILITY	INCIDENCE	BY	AGE	AND	GENDER	

	MORTA	LITY	WITH	WITHDRAWAL		DISABILITY MORTALITY		
AGE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	120777-120777-1207777-120789999-1407	
66	.022206	.010954	.050000	.040000	.052213	.029594	.009150	
67	.022206	.012163	.050000	.040000	.054450	.031325	.009150	
68	.022206	.013445	.050000	.040000	.056909	.033243	.009150	
69	.022206	.014860	.050000	.040000	.059613	.035335	.009150	
70	.022206	.016742	.050000	.040000	.062583	.037635	.009150	
71	.024570	.018579	0.000000	0.000000	.065841	.040140	.009150	
72	.027281	.020665	0.00000	0.00000	.069405	.042851	.009150	
73	.030387	.022970	0.000000	0.00000	.073292	.045769	.009150	
74	.033900	.025458	0.00000	0.000000	.077512	.048895	.009150	
75	.037834	.028106	0.00000	0.00000	.082067	.052230	.009150	
76	.042169	.030966	0.000000	0.000000	.086951	.055777	.009150	
77	.046906	.034105	0.000000	0.00000	.092149	.059545	.009150	
78	.052123	.037595	0.000000	0.00000	.097640	.063545	.009150	
79	.057927	.041506	0.00000	0.00000	.103392	.067793	.009150	
80	.064368	.045879	0.00000	0.000000	.109372	.072312	.009150	
81	.072041	.050780	0.000000	0.000000	.115544	.077135	.009150	
82	.080486	.056294	0.00000	0.00000	.121877	.082298	.009150	
83	.089718	.062506	0.00000	0.000000	.128343	.087838	.009150	
84	.099779	.069517	0.00000	0.00000	.134923	.093794	.009150	
85	.110757	.077446	0.00000	0.00000	.141603	.100203	.009150	
86	.122797	.086376	0.00000	0.00000	.148374	.107099	.009150	
87	.136043	.096337	0.00000	0.000000	.155235	.114512	.009150	
88	.150590	.107303	0.00000	0.00000	.162186	.122464	.009150	
89	.166420	.119154	0.00000	0.00000	.169233	.130972	.009150	
90	.183408	.131682	0.000000	0.000000	.183408	.140049	.009150	
91	.199769	.144604	0.00000	0.00000	.199769	.149698	.009150	
92	.216605	.157608	0.000000	0.000000	.216605	.159924	.009150	
93	.233662	.170433	0.00000	0.00000	.233662	.170433	.009150	
94	.250693	.182799	0.000000	0.00000	.250693	.182799	.009150	
95	.267491	.194509	0.00000	0.00000	.267491	.194509	.009150	
96	.283905	.205379	0.00000	0.00000	.283905	.205379	.009150	
97	.299852	.215240	0.000000	0.00000	.299852	.215240	.009150	
98	.315296	.223947	0.000000	0.00000	.315296	.223947	.009150	
99	.330207	.231387	0.00000	0.000000	.330207	.231387	.009150	
100	.344556	.237467	0.00000	0.00000	.344556	.237467	.009150	
101	.258628	.244834	0.00000	0.00000	.358628	.244834	.009150	
102	.371685	.254498	0.00000	0.000000	.371685	.254498	.009150	
103	.383040	.266044	0.00000	0.000000	.383040	.266044	.009150	
104	.392003	.279055	0.000000	0.000000	.392003	.279055	.009150	
105	.397886	.293116	0.00000	0.00000	.397886	.293116	.009150	
106	.400000	.307811	0.000000	0.00000	.400000	.307811	.009150	
107	.400000	.322725	0.00000	0.00000	.400000	.322725	.009150	
108	.400000	.337441	0.000000	0.000000	.400000	.337441	.009150	
109	.400000	.351544	0.00000	0.000000	.400000	.351544	.009150	
110	.400000	.364617	0.000000	0.000000	.400000	.364617	.009150	

#### 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>
Interest Assumption	7.50%	7.50%
RATIO OF ENTRY AGE NORMAL COST UAAL TO	VALUATION PAYROLL:	
<ol> <li>EAN Actuarial Accrued Liability (AAL)</li> <li>Actuarial Value of Assets</li> <li>Unfunded Actuarial Accrued Liability (UAAL):         <ul> <li>[1] - [2]</li> <li>Valuation Annual Payroll</li> </ul> </li> <li>Ratio: [3] divided by [4]</li> </ol>	\$ 540,175,678 352,915,906 187,259,772 97,243,842 192.6%	\$ 562,686,405 367,274,433 195,411,952 105,691,915 184.9%
	172.070	107.970
FUNDED RATIO:		
<ul> <li>Projected Benefit Obligation (PBO)</li> <li>Inactive Plan Participants</li> <li>Active Plan Participants</li> <li>Total PBO</li> </ul>	\$ 371,245,139 <u>119,540,358</u> \$ 490,785,497	\$ 368,289,847 <u>139,232,478</u> \$ 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

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

	YEARS OF SERVICE											AVERAGE
AGE	0 - 4	5 - 9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	TOTAL ANNUAL SALARIES	SALARY
0 - <b>19</b>	5	0	0	0	0	0	0	0	0	5	84,998.25	16,999.65
20-24	104	2	0	0	0	0	0	0	0	106	2,485,193.77	23,445.22
25-29	277	45	8	0	0	0	0	0	0	330	10,159,572.55	30,786.58
30-34	233	89	13	0	1	0	0	0	0	336	13,805,493.01	41,087.78
35-39	182	64	27	21	1	0	0	0	0	295	13,522,520.67	45,839.05
40-44	145	61	31	34	10	0	0	0	0	281	12,552,759.58	44,671.74
45-49	105	72	24	43	20	22	1	0	0	287	13,385,880.28	46,640.70
50-54	103	64	35	42	29	42	14	1	0	330	14,502,444.16	43,946.80
55-59	85	55	27	28	35	44	13	6	0	293	13,142,520.12	44,855.02
60-64	68	5 1	22	19	6	14	8	4	4	196	8,462,737.99	43,177.23
65-69	20	25	14	3	2	5	3	0	1	73	3,040,568.33	41,651.62
70-74	5	9	3	2	1	0	0	0	0	20	760,906.28	38,045.31
75-79	1	2	2	1	1	0	0	0	0	7	217,213.04	31,030.43
80-84	1	1	0	0	1	0	0	0	0	3	98,012.99	32,671.00
	1,334	540	206	193	107	127	39	11	5	2,562	106,220,821.02	41,460.12

#### ----- ORDINARY RETIREMENT -----

					CE RETIRE						TOTAL ANNUAL	A V E R A G E A N N U A L
A G E	0-4	5-9 	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	BENEFIT	BENEFIT
45-49	1	0	0	0	0	0	0	0	0	1	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	6	0	0	0	0	0	0	66	2,261,029.68	34,258.03
60-64	80	65	70	4	0	0	0	0	0	219	6,203,997.60	28,328.76
65-69	74	117	147	24	0	0	0	0	0	362	9,543,898.44	26,364.36
70-74	26	55	137	44	4	7	0	0	0	273	5,425,973.52	19,875.36
75 - 79	6	11	67	73	6	25	0	0	0	188	2,582,867.16	13,738.66
80-84	2	6	13	46	37	25	3	0	0	132	1,931,023.20	14,628.96
85-89	1	2	9	11	27	37	6	0	0	93	1,241,804.52	13,352.74
90+	0	1	0	6	3	37	17	8	0	72	709,684.44	9,856.73
	238	283	449	208	77	131	26	8	0	1,420	30,504,338.52	21,481.93

### ----- BENEFICIARIES ------

				YEARS SIN	CE RETIRE	MENT					TOTAL ANNUAL	AVERAGE ANNUAL
AGE	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	BENEFIT	BENEFIT
30-34	0	2	1	0	0	1	0	0	0	4	31,858.56	7,964.64
35-39	0	0	0	0	3	1	0	0	0	4	18,093.72	4,523.43
40-44	0	0	2	0	0	2	1	0	0	5	30,658.80	6,131.76
50-54	0	1	0	1	1	2	1	0	0	6	20,524.92	3,420.82
55-59	3	1	3	1	0	1	1	0	0	10	152,157.12	15,215.71
60-64	3	4	4	5	1	1	0	1	0	19	288,319.80	15,174.73
65-69	3	2	13	6	1	3	1	1	0	30	433,163.76	14,438.79
70-74	0	2	9	6	5	2	0	0	0	24	302,783.40	12,615.98
75-79	1	0	4	9	6	8	3	0	0	31	423,145.68	13,649.86
80-84	0	1	1	4	3	13	4	0	0	26	351,081.36	13,503.13
85-89	0	1	2	0	3	16	9	4	0	35	465,760.68	13,307.45
90+	0	0	0	0	2	2	9	6	2	21	187,300.20	8,919.06
	10	14	39	32	25	52	29	12	2	215	2,704,848.00	12,580.69

#### ----- DISABILITY RETIREMENT -----

				VEADS SIN	CE RETIRE	MENT					TOTAL Annual	AVERAGE ANNUAL
AGE	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	BENEFIT	BENEFIT
45-49	1	1	0	1	0	0	0	0	0	3	75,445.68	25,148.56
50-54	7	3	0	0	0	1	0	0	0	11	266,193.96	24,199.45
55-59	2	6	3	1	0	1	1	0	0	14	229,735.68	16,409.69
60-64	5	5	9	4	3	1	4	0	0	31	444,394.92	14,335.32
65-69	0	1	12	6	6	7	5	0	0	37	438,008.88	11,838.08
70-74	0	0	5	8	5	8	2	2	1	31	401,358.12	12,947.04
75-79	0	0	0	3	7	6	3	1	0	20	194,619.96	9,731.00
80-84	0	0	0	0	2	0	2	2	1	7	49,124.28	7,017.75
85-89	0	0	0	0	1	2	2	3	1	9	87,039.36	9,671.04
90+	0	0	0	0	0	0	1	2	0	3	25,183.20	8,394.40
												47 740 00
	15	16	29	23	24	26	20	10	3	166	2,211,104.04	13,319.90

#### ----- SEPARATION RETIREMENT -----

				YEARS SIN	CE RETIRE	MENT					TOTAL Annual	AVERAGE ANNUAL
AGE	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	BENEFIT	BENEFIT
60-64	19	0	1	0	0	0	0	0	0	20	261,728.40	13,086.42
65-69	15	29	0	0	0	0	0	0	0	44	443,607.96	10,082.00
70-74	3	9	19	0	0	0	0	0	0	31	304,507.44	9,822.82
75-79	0	0	2	10	0	0	0	0	0	12	105,818.16	8,818.18
80-84	0	0	1	1	10	0	0	0	0	12	103,182.12	8,598.51
85-89	0	0	0	1	1	6	0	0	0	8	49,899.36	6,237.42
90+	0	0	0	0	0	1	9	0	0	10	48,838.20	4,883.82
	37	38	23	12	11	7	9	0	0	137	1,317,581.64	9,617.38

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

				YFARS SIN	CE RETIRE	MENT					TOTAL ANNUAL	AVERAGE ANNUAL
AGE	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	BENEFIT	BENEFIT
50-54	5	2	0	0	0	0	0	0	0	7	258,038.52	36,862.65
55-59	22	11	0	0	0	0	0	0	0	33	1,276,424.04	38,679.52
60-64	16	4	0	0	0	0	0	0	0	20	681,615.96	34,080.80
65-69	10	11	0	0	0	0	0	0	0	21	520,030.44	24,763.35
70-74	0	3	0	0	0	0	0	0	0	3	51,488.04	17,162.68
75 - 79	1	0	0	0	0	0	0	0	0	1	34,815.84	34,815.84
80-84	1	0	0	0	0	0	0	0	0	1	5,836.08	5,836.08
	55	31	0	0	0	0	0	0	0	86	2,828,248.92	32,886.63

#### ----- TERMINATED VESTED ------

				YEARS SIN	CE TERMIN	ATION					TOTAL ANNUAL	AVERAGE ANNUAL
AGE	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	TOTAL	BENEFIT	BENEFIT
75 70		•	•		0	•		0	•		44 022 72	14 030 70
35-39	I	0	0	0	0	0	0	0	0	1	11,022.72	11,022.72
40-44	0	0	1	0	0	0	0	0	0	1	2,118.00	2,118.00
45-49	0	0	7	0	0	0	0	0	0	7	38,569.44	5,509.92
50-54	0	1	12	2	0	0	0	0	0	15	105,958.32	7,063.89
55-59	0	4	11	7	2	0	0	0	0	24	214,355.88	8,931.50
60-64	1	0	5	3	3	0	0	0	0	12	118,184.40	9,848.70
65-69	0	0	3	0	0	1	0	0	0	4	24,615.24	6,153.81
80-84	0	0	0	0	0	0	0	0	1	1	1,458.72	1,458.72
	2	5	39	12	5	1	0	0	1	65	516,282.72	7,942.81

EXHIBIT V

## MARKET VALUE AND ACTUARIAL VALUE ASSET INVESTMENT PERFORMANCE

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

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

Number of Years Included: 27

-295,356,535 501,068,609

\* "TRANSFERS OUT" INCLUDES ADMINISTRATIVE EXPENSES

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

Y E A R E N D I N G	ENDING MARKET VALUE	MARKET VALUE INV. PERF. FOR YEAR	MARKET VALUE MEAN FUND	ACTUARIAL VALUE MEAN FUND	ENDING ACTUARIAL VALUE OF ASSETS	ACTUARIAL ASSETS INV. PERF. FOR YR
12/31/1989	146,059,932	10.4631%	132,776,976	134,474,947	145,400,919	8.5782%
12/31/1990	149,602,231	3.7646%	145,099,888	144,440,875	152,159,905	6.0087%
12/31/1991	174,083,849	18.0881%	148,419,872	150,977,546	158,285,109	5.6233%
12/31/1992	190,000,562	9.9605%	173,406,119	157,607,379	165,981,703	5.7434%
12/31/1993	212,828,714	13.1489%	188,989,655	164,970,796	172,649,085	5.2671%
12/31/1994	206,686,758	-1.5128%	211,356,418	171,176,789	180,625,703	6.3801%
12/31/1995	248,331,601	20.9959%	205,894,504	179,833,449	221,866,292	23.8138%
12/31/1996	278,446,227	13.6137%	246,602,981	220,137,672	242,897,086	11.1240%
12/31/1997	319,142,011	15.9959%	276,666,419	241,117,278	270,561,907	12.9499%
12/31/1998	355,566,389	12.5319%	317,462,224	268,882,120	300,107,935	12.2379%
12/31/1999	375,802,388	7.7362%	352,066,145	296,607,691	328,133,916	11.8090%
12/31/2000	371,909,534	1.2736%	371,490,237	323,821,765	351,735,022	9.9516%
12/31/2001	348,790,613	-3.3353%	366,461,387	346,286,875	374,022,897	9.5829%
12/31/2002	314,036,652	-6.7492%	342,988,145	368,220,429	384,415,399	5.9740%
12/31/2003	366,380,685	21.3009%	307,462,503	370,269,833	402,773,504	10.5539%
12/31/2004	390,480,525	9.9292%	360,531,626	396,924,445	412,486,855	5.3943%
12/31/2005	392,146,254	4.5649%	382,581,170	404,587,500	412,970,222	4.0244%
12/31/2006	404,591,034	11.0482%	377,514,413	398,338,371	403,370,965	4.9366%
12/31/2007	412,797,925	8.6191%	391,809,292	390,589,223	398,490,554	5.2954%
12/31/2008	267,341,275	-30.1839%	400,515,090	386,207,719	381,604,003	1.9883%
12/31/2009	310,155,431	23.1323%	258,813,562	373,076,290	387,146,017	6.0571%
12/31/2010	334,408,848	14.1131%	301,039,178	378,029,764	384,105,611	4.0188%
12/31/2011	317,609,637	-1.3031%	328,147,334	377,844,097	379,526,159	2.1023%
12/31/2012	338,607,461	11.5550%	310,187,398	372,103,920	372,049,545	1.9801%
12/31/2013	372,455,614	15.1698%	330,465,960	363,908,044	365,102,483	2.5655%
12/31/2014	370,750,070	4.1632%	364,025,305	356,672,174	352,915,906	1.3105%
12/31/2015	339,098,650	-3.8803%	361,946,734	344,102,570	367,274,453	9.2924%

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

ယ ပ် PLAN YEAR	BEGINNING	NET EXTERNAL CASH FLOW	MARKET VALUE INV. INCOME	ENDING	INVES	MARKET VALUE STMENT PERFORM	IANCE		JARIAL ASSET STMENT PERFORM		
ENDING	MARKET VALUE	FOR YEAR	FOR YEAR	MARKET VALUE	FOR YEAR	CUMULATIVE	AVERAGE	FOR YEAR	CUMULATIVE	AVERAGE	YEAR
12/31/1989	133,386,566	-1,219,181	13,892,547	146,059,932	10.4631%	10.46%	10.46%	8.58%	8.58%	8.58%	1
12/31/1990	146,059,932	-1,920,089	5,462,388	149,602,231	3.7646%	14.62%	7.06%	6.01%	15.10%	7.29%	2
12/31/1991	149,602,231	-2,364,718	26,846,336	174,083,849	18.0881%	35.35%	10.62%	5.62%	21.57%	6.73%	3
12/31/1992	174,083,849	-1,355,460	17,272,173	190,000,562	9.9605%	48.84%	10.45%	5.74%	28.56%	6.48%	4
12/31/1993	190,000,562	-2,021,815	24,849,967	212,828,714	13.1489%	68.41%	10.99%	5.27%	35.33%	6.24%	5
12/31/1994	212,828,714	-2,944,593	-3,197,363	206,686,758	-1.5128%	65.86%	8.80%	6.38%	43.96%	6.26%	6
12/31/1995	206,686,758	-1,584,509	43,229,352	248,331,601	20.9959%	100.68%	10.46%	23.81%	78.25%	8.61%	7
12/31/1996	248,331,601	-3,457,240	33,571,866	278,446,227	13.6137%	128.00%	10.85%	11.12%	98.07%	8.92%	8
12/31/1997	278,446,227	-3,559,616	44,255,400	319,142,011	15.9959%	164.47%	11.41%	12.95%	123.72%	9.36%	9
12/31/1998	319,142,011	-3,359,575	39,783,953	355,566,389	12.5319%	197.62%	11.52%	12.24%	151.10%	9.64%	10
12/31/1999	355,566,389	-7,000,488	27,236,487	375,802,388	7.7362%	220.64%	11.17%	11.81%	180.76%	9.84%	11
12/31/2000	375,802,388	-8,624,302	4,731,448	371,909,534	1.2736%	224.73%	10.31%	9.95%	208.70%	9.85%	12
12/31/2001	371,909,534	-10,896,295	-12,222,626	348,790,613	-3.3353%	213.90%	9.20%	9.58%	238.28%	9.83%	13
12/31/2002	348,790,613	-11,604,936	-23,149,025	314,036,652	-6.7492%	192.71%	7.97%	5.97%	258.49%	9.55%	14
12/31/2003	314,036,652	-13,148,299	65,492,332	366,380,685	21.3009%	255.06%	8.81%	10.55%	296.32%	9.61%	15
12/31/2004	366,380,685	-11,698,118	35,797,958	390,480,525	9.9292%	290.31%	8.88%	5.39%	317.70%	9.35%	16
12/31/2005	390,480,525	-15,798,710	17,464,439	392,146,254	4.5649%	308.13%	8.62%	4.02%	334.51%	9.03%	17
12/31/2006	392,146,264	-29,263,702	41,708,472	404,591,034	11.0482%	353.22%	8.76%	4.94%	355.96%	8.79%	18
12/31/2007	404,591,034	-25,563,484	33,770,375	412,797,925	8.6191%	392.29%	8.75%	5.30%	380.10%	8.61%	19
12/31/2008	412,797,925	-24,565,671	-120,890,979	267,341,275	-30.1839%	243.70%	6.37%	1.99%	389.65%	8.27%	20
12/31/2009	267,341,275	-17,055,427	59,869,583	310,155,431	23.1323%	323.20%	7.11%	6.06%	419.31%	8.16%	21
12/31/2010	310,155,431	-18,232,506	42,485,923	334,408,848	14.1131%	382.93%	7.42%	4.02%	440.18%	7.97%	22
12/31/2011	334,408,848	-12,523,028	-4,276,183	317,609,637	-1.3031%	376.63%	7.03%	2.10%	451.53%	7.71%	23
12/31/2012	317,609,637	-14,844,479	35,842,303	338,607,461	11.5550%	431.71%	7.21%	1.98%	462.46%	7.46%	24
12/31/2013	338,607,461	-16,283,003	50,131,156	372,455,614	15.1698%	512.37%	7.52%	2.57%	476.89%	7.26%	25
12/31/2014	372,455,614	-16,860,619	15,155,075	370,750,070	4.1632%	537.86%	7.39%	1.31%	484.44%	7.03%	26
12/31/2015	370,750,070	-17,606,672	-14,044,748	339,098,650	-3.8803%	513.11%	6.95%	9.29%	538.75%	7.11%	27

Number of Years Included: 27

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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

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PLAN YEAR ENDING	BEGINNING MARKET VALUE	ACTUAL COLA PAID DURING YEAR	ACTUAL NET EXTERNAL CASH FLOW DURING YEAR	. ACTUAL ENDING MARKET VALUE	HYPOTHETICAL MARKET VALUE AT END OF YEAR ASSUMING NO COLA PAYMENTS AND 3.5% ANNUAL RETURN SINCE 1/1/1989	ACTUARIAL PRESENT VALUE OF "PERMANENT" COLA INCREASES
12/31/1989 12/31/1990 12/31/1991 12/31/1992 12/31/1993 12/31/1994 12/31/1995 12/31/1995 12/31/1997 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 12/31/2000 12/31/2010 12/31/2011 12/31/2011 12/31/2013 12/31/2013 12/31/2013	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	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 2,826,770 2,242,059 2,480,991 2,224,382	-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	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	137,739,421 141,547,483 145,857,665 151,086,664 155,644,182 159,434,091 164,770,055 168,433,610 172,165,263 176,238,228 176,917,495 176,035,428 174,259,951 171,703,849 167,611,905 165,008,200 158,261,537 137,541,913 120,735,131 104,344,953 94,451,927 82,475,300 75,476,525 65,256,005 53,453,000 40,392,558	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
12/31/2015	370,750,070	2,053,895	-17,606,672	339,098,650	25,945,403	0

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TOTALS:	64,626,100

21,392,954

Number of Years Included: 27

COLARES.R2

### **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.

Sichal About

Michael A. Conefry, FCA, ASA, MAAA, MSPA Enrollment Number 14-1235

New Orleans, Louisiana May, 2016

V1512.CNO