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Revised Agenda

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BUDGET DEVELOPMENT COMMITTEE

April 25, 2016
2:00 PM

James R. Mills Building
Executive Conference Room
1255 Imperial Avenue, San Diego

This information will be made available in alternative formats upon request. To request an agenda in an alternative format, please call the Clerk of the Board at least two working days prior to the meeting to ensure availability. Assistive Listening Devices (ALDs) are available from the Clerk of the Board/Assistant Clerk of the Board prior to the meeting and are to be returned at the end of the meeting.

ACTION RECOMMENDED

1. ROLL CALL
2. APPROVAL OF MINUTES - March 3, 2016 Approve
3. PUBLIC COMMENTS
4. COMMITTEE DISCUSSION ITEMS
 - a. Appointment of Committee Chairman and Vice Chairman Elect

Action would take nominations from the floor and elect the budget development committee chairman and vice chairman for the 2016 calendar year.
 - b. SDTC Retirement Plan Experience Study Approve

~~Action would approve the revised actuarial assumptions for San Diego Transit Corporation's (SDTC's) retirement plan.~~
That the Budget Development Committee: 1. adopt the Actuarial Experience Study of the San Diego Transit Corporation's (SDTC's) retirement plan;
2. approve the revised actuarial assumptions; 3. and direct staff to incorporate the revised contribution amount in the FY17 operating budget.

Please SILENCE electronics
during the meeting

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Metropolitan Transit System (MTS) is a California public agency comprised of San Diego Transit Corp., San Diego Trolley, Inc. and San Diego and Arizona Eastern Railway Company (nonprofit public benefit corporations). MTS is the taxicab administrator for seven cities.

MTS member agencies include the cities of Chula Vista, Coronado, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, Poway, San Diego, Santee, and the County of San Diego.



4 COMMITTEE DISCUSSION ITEMS - Continued

c. FY 2017 Operating Budget

Approve

Action would forward a recommendation the MTS Board of Directors to hold a public hearing on May 12th and to approve the proposed FY 2017 operating budget.

5. ADJOURNMENT

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BUDGET DEVELOPMENT COMMITTEE
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101

March 3, 2016

MINUTES

1. ROLL CALL

Chairman Roberts called the Budget Development Committee (BDC) meeting to order at 9:11 a.m. A roll call sheet listing BDC member attendance is attached.

2. APPROVAL OF MINUTES

Mr. Mathis moved to approve the minutes of the April 30, 2015 MTS BDC meeting. Mr. McClellan seconded the motion, and the vote was 3-0 in favor, with Mr. Minto and Ms. Cole absent.

3. PUBLIC COMMENTS

There were no public comments.

4.a. Appointment of Committee Chairman and Vice Chairman

The appointment of Committee Chairman and Vice Chairman was deferred to the next meeting.

4 b. Fiscal Year 2017 Capital Improvement Program (Mike Thompson)

Mr. Thompson gave the Committee a presentation on the MTS Fiscal Year (FY) 2017 Capital Improvement Program (CIP). He discussed the development of MTS's FY17 CIP requests for projects, which began in October 2015. He explained that the Capital Projects Review Committee (CPRC) met to discuss the priority project list, and the CEO approved the prioritization of the capital requests. He gave an overview of CIP project highlights, including a \$45 million Trolley Capacity Improvement Project. He explained that \$31.9 million was awarded from the Transit and Intercity Rail Capital Program for this project.

Mr. Jablonski spoke about SD100 Replacement, which calls for replacing 43 SD100s by 2025. He explained that the project requires about \$180 million in funding, and he has a goal of setting aside 50% of the requirement. He also proposed funding \$170,000 in both FY17 and FY18 for the vintage trolley. Mr. Jablonski then highlighted the need for a new transit facility, and led a discussion regarding this topic.

Mr. Thompson explained how funding for the various capital project categories made up a total of about \$108.9 million for the proposed FY17. He also provided an overview of the five year outlook of funding for the CIP.

Action Taken

Mr. McClellan moved to forward the following recommendation to the MTS Board for Fiscal Year 2017 Capital Improvement Program: (1) approve the fiscal year 2017 Capital Improvement Program (CIP) with the estimated federal and nonfederal funding levels. As the federal appropriation figures are finalized and/or other project funding sources become available, allow the Chief Executive Officer (CEO) to identify and adjust projects for the adjusted funding levels; (2) recommend that the San Diego Association of Governments (SANDAG) Board of Directors approve the submittal of federal Sections 5307, 5337, and 5339 applications for the MTS fiscal year 2017 CIP; (3) approve the transfer of \$600,000 from project 1142500-Centralize Train Control to 1144000-Substation SCADA; (4) recommend that the SANDAG Board of Directors approve the amendment of the Regional Transportation Improvement Program (RTIP) in accordance with the fiscal year 2017 CIP recommendations. Mr. Mathis seconded the motion, and the vote was 3-0 in favor, with Mr. Minto and Ms. Cole absent.

4 c. Fiscal Year 2016 Midyear Adjustment (Mike Thompson)

Mr. Thompson gave the Committee a report of the FY16 midyear budget adjustment and discussed the non-operating revenue and operating revenue. He explained that the passenger revenue is unfavorable by \$1.2 million. He explained that bus ridership decreased 8% year over year through December, but the average fare increased, so this growth partially offset ridership loss. Mr. Thompson explained that CNG Tax Credit is included in the operating budget instead of CIP to offset the State Transit Assistance (STA) funding that was lost. Mr. Jablonski discussed the decrease in STA. Mr. Thompson discussed the FY16 midyear revenue summary and explained that the total revenue is increasing by \$2.78 million, or an increase of 1.0%.

Mr. Thompson explained the expense assumptions summary and stated personnel costs are favorable by \$1.4 million or 1.1%. He recommended changing the salary grade ranges for non-represented employees who have not been reviewed using market data since 2011. A discussion of the proposed pay increases followed. Mr. Thompson said that repairs and maintenance services, part of outside services, have unfavorable expenses of \$850,000. Mr. Jablonski led a discussion on vandalism, which is the main cost of repairs and maintenance services.

Mr. Thompson stated that the total revenue less expenses is a \$760,000 favorable variance. He reviewed the reserve balance and explained that the projected balance on June 30, 2016 would be \$32.9 million. He also stated that the goal is to have a contingency reserve balance of 12.5% of operating expense budget by FY16.

Action Taken

Mr. McClellan moved to forward a recommendation to the MTS Board of Directors to approve the Combined MTS FY2016 Midyear Budget Amendment. Mr. Mathis seconded the motion, and the vote was 3-0 in favor, with Mr. Minto and Ms. Cole absent.

4 d. Fiscal Year 2017 Operating Budget High Level Assumptions (Mike Thompson)

Mr. Thompson discussed the FY2017 revenue assumptions, including sloping growth in sales tax receipts revenue and changes in passenger levels. He reviewed expense assumptions, including service level assumptions and purchased transportation. Mr. Jablonski elaborated on ADA First Transit

rate. Mr. Thompson summarized the San Diego Transit Corporation pension plan experience study, which falls under personnel costs. He stated that management pension contribution will increase by 1% to 8% beginning January 1, 2017. Lastly, he reviewed the budget development calendar.

5. Adjournment

Chairman Roberts adjourned the meeting at 10:32 a.m.



Chairman of the Budget Development Committee

Clerk of the Budget Development Committee

Attachment: A. Roll Call Sheet

BUDGET DEVELOPMENT COMMITTEE
SAN DIEGO METROPOLITAN TRANSIT SYSTEM

ROLL CALL

MEETING OF (DATE) 3/3/16

CALL TO ORDER (TIME) 9:11 AM

RECESS _____

RECONVENE _____

CLOSED SESSION _____

RECONVENE _____

ADJOURN 10:32 AM

BOARD MEMBER (Alternate)	PRESENT (TIME ARRIVED)	ABSENT (TIME LEFT)
COLE <input type="checkbox"/>		
MATHIS <input checked="" type="checkbox"/>	9:11	10:32
McCLELLAN <input checked="" type="checkbox"/>	9:11	10:32
MINTO <input type="checkbox"/>		
ROBERTS <input checked="" type="checkbox"/>	9:11	10:32

SIGNED BY THE CLERK OF THE BUDGET DEVELOPMENT COMMITTEE: 

CONFIRMED BY OFFICE OF THE GENERAL COUNSEL: 

c: Clerk of the Board
Accounts Payable
Attachment to Original and Draft Minutes

Agenda Item No. 4a

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BUDGET DEVELOPMENT COMMITTEE

April 25, 2016

SUBJECT:

APPOINTMENT OF COMMITTEE CHAIRMAN AND VICE CHAIRMAN

RECOMMENDATION:

That the Budget Development Committee:

Action would take nominations from the floor and elect the Budget Development Committee Chairman and Vice Chairman for the 2016 calendar year.

Budget Impact

None.

DISCUSSION:

Budget Development Committee and MTS Board of Directors' Finance Workshops are led by a Budget Development Committee appointed Chair, or Vice Chair in the Chair's absence.

The Chairman and Vice Chairman of the Budget Development Committee nomination procedures pursuant to Robert's Rules of Order are as follows:

1. The past Vice-Chairman opens the agenda item.
2. The past Vice-Chairman requests nominations from the floor. Nominations do not require a second.
3. The past Vice-Chairman closes the nominations.
4. The past Vice-Chairman invites the candidate(s) to address the Committee for 3 minutes.
5. The past Vice-Chairman asks for any Committee discussion.



6. The past Vice-Chairman calls for the vote on each motion for each candidate.
7. The vote is taken on the motion(s) for each candidate based upon the order in which they were nominated. The vote continues until a candidate is elected.



Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Mike Thompson, 619-557-4557, mike.thompson@sdmts.com



Metropolitan Transit System

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Agenda Item No. 4b

REVISED

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BUDGET DEVELOPMENT COMMITTEE

April 25, 2016

SUBJECT:

SDTC RETIREMENT PLAN ACTUARIAL REVIEW AND ANALYSIS (MIKE THOMPSON)

RECOMMENDATION:

That the Budget Development Committee approve the revised actuarial assumptions for San Diego Transit Corporation's (SDTC's) retirement plan;

1. adopt the Actuarial Experience Study of the San Diego Transit Corporation's (SDTC's) retirement plan;
2. approve the revised actuarial assumptions;
3. and direct staff to incorporate the revised contribution amount in the FY17 operating budget.

Budget Impact

The SDTC retirement plan contribution would increase by \$2.8 million as the recommended employer contribution percentage has increased from the fiscal year 2016 actuarial contribution of \$12.4 million to \$15.2 million for fiscal year 2017. This amount has already been reflected in the fiscal year 2017 draft budget.

DISCUSSION:

The following are the results of an experience study of SDTC's retirement plan of July 1, 2015. The purpose of this experience study is to:

1. Review the actuarial experience of the plan during the period from January 1, 2010 through June 30, 2015.
2. Recommend revising the actuarial assumptions of the plan going forward.

In this experience study, SDTC's retirement plan's demographic experience – observed rates of retirement, withdrawal, termination, disability, and death – is compared with the experience expected under the actuarial assumptions adopted to determine plan actuarial liabilities and cost and revised assumptions are recommended as appropriate. In addition, the plan's economic assumptions are reviewed. The economic assumptions include the assumed rates of inflation, investment return and active payroll growth.



The proposed revised actuarial assumptions will be presented. Among the recommended changes are the following:

- Adopting the Society of Actuaries' Retirement Plan Experience Committee recommendations to include future generational mortality improvements within the mortality assumptions
- Reducing the investment rate of return assumption from 7.5% to 7.0%
- Reducing the inflation assumption from 3.0% to 2.75%

In the table shown below, we present a summary of experience and the expected impact of the proposed assumption changes on the overall plan contribution, as of July 1, 2015.

<i>Assumption Change</i>	<i>Impact</i>
Base mortality experience	\$ 570,000
Future mortality improvements	1,360,000
Investment rate of return	1,320,000
Inflation	-180,000
Retirement rates	-230,000
Other	-50,000
Total Contribution Increase	\$ \$2,790,000

Should all of the recommendations in this report be adopted, it would result in an increase in the total actuarial contribution of \$2.8 million for the next fiscal year.



Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Mike Thompson, 619.557.4557, mike.thompson@sdmts.com

Attachment: A. Draft SDTC Actuarial Experience Study January 1, 2010 through June 30, 2015

DRAFT

**Retirement Plans of
San Diego Transit Corporation**

**Actuarial Experience Study for
July 1, 2010 through June 30, 2015**

Produced by Cheiron

April 2016

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April 18, 2016

Mr. Larry Marinesi
San Diego Transit Corporation
1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490

Dear Mr. Marinesi:

The purpose of this report is to present an Actuarial Experience Study of the Retirement Plans of San Diego Transit Corporation (SDTC) covering actuarial experience from July 1, 2010 through June 30, 2015. This report includes analyses and recommendations of economic and demographic assumptions to be used beginning with the July 1, 2016 actuarial valuation.

If you have any questions about the report or would like additional information, please let us know.

Sincerely,
Cheiron

Robert T. McCrory, FSA, FCA, EA, MAAA
Principal Consulting Actuary

Anne D. Harper, FSA, EA, MAAA
Consulting Actuary

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

SECTION I – EXECUTIVE SUMMARY

Actuarial assumptions (economic and demographic) are intended to be long-term in nature, and should be both individually reasonable and consistent in the aggregate. The purpose of this experience study is to evaluate whether or not the current assumptions adequately reflect the long-term expectations for the Retirement Plans of San Diego Transit Corporation (SDTC), and if not, to recommend adjustments. It is important to note that frequent and significant changes in the actuarial assumptions are not typically recommended, unless there are known fundamental changes in expectations of the economy, or with respect to SDTC's membership, plan provisions, or assets that would warrant such frequent or significant changes.

All economic assumptions apply to the Plans of SDTC as a whole whereas the demographic assumptions may be specific to each group (or bargaining unit) where reasonable and appropriate.

SUMMARY OF ECONOMIC ASSUMPTION ANALYSIS

The specific economic assumptions analyzed in this report are price inflation, wage inflation, and the discount rate. For purposes of the actuarial funding valuation, the discount rate is synonymous with the assumed rate of return on investments. These assumptions have a significant impact on the contribution rates in the short-term and the risk of negative outcomes in the long-term.

The current economic assumptions adopted by the Retirement Board include a 7.5% long-term rate of return on Plan assets, an annual increase in prices measured by the Consumer Price Index (CPI) of 3.0%, and annual wage increase equal to price increases.

Based on the capital market assumptions developed by the investment consultant, RVK, the average annual compound return on Plan investments over a 20-year period will be 6.1%, assuming 2.5% annual inflation.

Therefore, the Board should consider decreasing its assumed investment return assumption to reflect both RVK expectations and those of other investment consultants and the Board. We recommend lowering the assumption to 7.0% for the July 1, 2016 valuation. In addition, future annual reductions in 0.25% or 0.10% increments could also be considered and reviewed by the Board and staff in consultation with the Plan's actuary and investment consultant to determine if further reductions are deemed to be appropriate.

The current inflation assumption of 3.0% annually is not unreasonable, but it is higher than the 2.5% assumed by RVK and many other investment consultants. Accordingly, we recommend decreasing the inflation assumption to 2.75%, which is close to the average inflation rate over the past 30 years. In the future, if the investment return assumption is decreased below 7%, a further reduction in the inflation rate to 2.5% may be considered.

In past valuations, based on the experience of transit districts generally, we have assumed that wages will increase with, but not more than, price inflation. We do not recommend any change in this assumption at this time.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

SECTION I – EXECUTIVE SUMMARY

SUMMARY OF DEMOGRAPHIC ASSUMPTION ANALYSIS

This experience study specifically analyzes and makes the following recommendations for the demographic assumptions.

- **Merit pay increases** – Minor adjustments to merit pay increases for ATU, Non-Contract, and Clerical. No changes are recommended for IBEW.
- **Retirement rates** – Slightly lowered rates for each group. More significant reductions are recommended for the Clerical/Non-Contract members after age 62.
- **Termination rates** – Slightly lowered rates for ATU/IBEW members with less than ten years of service years and Non-Contract members with less than four years of service. No changes are recommended for the Clerical members.
- **Disability rates** – Marginal reduction to the rate of disability for ATU Drivers and IBEW Mechanics. Clerical and Non-Contract members are not assumed to become disabled.
- **Mortality rates** – Adjusted Blue Collar tables used for all non-disabled male retirees with no adjustment for female retirees. There is a separate table for active members with no adjustment and only the male rates are used. Generational mortality improvements are assumed for all non-disabled members.

The mortality improvements represent two steps: 1) Where we are now and 2) Where we are going.

We first reviewed the mortality rates that apply to the SDTC members now based on the Plan data during the last ten years. The analysis showed that, along with the general population and other transit plans, the SDTC members are living longer. This means that on average the Plan will be paying benefits for a longer period of time than previously expected.

The second step accounts for future mortality rates among the SDTC members. Recent studies of mortality from the Society of Actuaries in the US and the Faculty of Actuaries in the UK have shown that lifespans of pension members have increased in the past but more importantly are likely to increase in the future. This means that a retiree who turns 65 in 20 years is expected to live longer than a 65-year old retiree today. So, future retirees are expected to live longer. In light of these studies, the actuarial professional standards have changed and, unless there are extenuating circumstances, actuaries are required to account for the likelihood of future mortality improvements in their work.

The recommended change to the mortality assumptions has the largest impact on the total plan Contributions. The impact of all the demographic assumption changes along with the proposed economic assumptions on the Plan costs and liabilities can be found in Table I-1 and are shown in detail for each assumption in Table I-2 on the following pages.

The body of this report provides additional detail and support for our conclusions and recommendations.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

SECTION I – EXECUTIVE SUMMARY

IMPACT OF ASSUMPTION CHANGES

The table below shows the results of the 2015 actuarial valuation with the current and proposed actuarial assumptions. The economic assumptions are specifically noted.

Table I-1

June 30, 2015 Actuarial Valuation Results		
	Current Assumptions	Proposed Assumptions
Investment Rate of Return	7.50%	7.00%
Inflation	3.00%	2.75%
Actuarial Liability (AL)	\$ 256,750,000	\$ 285,400,000
Actuarial Value of Assets (AVA)	<u>168,570,000</u>	<u>168,570,000</u>
Unfunded Actuarial Liability (UAL)	\$ 88,180,000	\$ 116,830,000
Funded Ratio (AVA/AL)	66%	59%
Normal Cost	\$ 3,470,000	\$ 3,970,000
Assumed Administrative Expenses	250,000	260,000
UAL Payment	<u>7,860,000</u>	<u>10,000,000</u>
Total Contribution, Beginning of Year	\$ 11,580,000	\$ 14,230,000
Total Contribution, Middle of Year	\$ 12,010,000	\$ 14,720,000
Total Contribution, End of Year	\$ 12,440,000	\$ 15,230,000
Change in Contribution (End of Year)		\$ 2,790,000

The actuarial liability would increase from \$256.8 million to \$285.4 million, or \$28.7 million. This liability increase is amortized over a 22-year closed period, a similar time frame as the remaining July 1, 2012 unfunded actuarial liability. The funded ratio would decrease as a result of the proposed assumption changes from 66% to 59%, or a 7% decrease. Finally, the Plan Contribution would increase from \$12.4 million to \$15.2 million, a \$2.8 million increase.

The details of the Contribution increase by each assumption are presented in the table on the following page.

RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015

SECTION I – EXECUTIVE SUMMARY

Table I-2

**Impact of Individual Assumption Changes on the
Plan Contribution**

Change to Base Mortality Table	\$ 570,000
Future Mortality Improvements	<u>1,360,000</u>
Total Mortality Assumption Change	\$ 1,930,000
Discount Rate/Investment Rate of Return	1,320,000
Inflation	(180,000)
Retirement Rates	(230,000)
Merit Pay Increases	(170,000)
Disability Rates	30,000
Termination Rates	80,000
Administrative Expenses	<u>10,000</u>
Total Contribution Increase	\$ 2,790,000

Mortality improvements and lowering the assumed rate of return on investments from 7.5% to 7.0% have the most significant impact on the Plan cost.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

SECTION II – CERTIFICATION

The purpose of this report is to provide the results of an Actuarial Experience Study of the Retirement Plans of San Diego Transit Corporation (SDTC) covering actuarial experience from July 1, 2010 through June 30, 2015. This report is for the use of the Retirement Board and MTS Board in selecting assumptions to be used in actuarial valuations beginning July 1, 2016.

In preparing our report, we relied on information (some oral and some written) supplied by SDTC. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared for the SDTC Retirement Board and MTS Board for the purposes described herein. This report is not intended to benefit any other party, and Cheiron assumes no duty or liability to any such party.

Robert T. McCrory, FSA, FCA, EA, MAAA
Principal Consulting Actuary

Anne D. Harper, FSA, EA, MAAA
Consulting Actuary

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION III – ECONOMIC ASSUMPTIONS
DISCOUNT RATE**

The economic assumptions used in actuarial valuations are intended to be long-term in nature, and should be both individually reasonable and consistent with each other. The specific assumptions analyzed in this report are:

- **Price inflation** – used as an underlying component of other economic assumptions.
- **Wage inflation** – across the board wage growth used to project benefits and to amortize the unfunded liability as a level percentage of expected payroll.
- **Discount rate** – used both to project long-term asset growth and to discount future cash flows in calculating the liabilities and costs of the Plan.

In order to develop recommendations for each of these assumptions, we considered historical data, both nationally and for the Plan, and expectations for the future, as expressed by the Plan's investment consultant and the Board.

DISCOUNT RATE

The discount rate assumption is generally the most significant of all the assumptions employed in actuarial valuations. The discount rate is based on the long-term expected return on plan investments. In the short-term, a higher discount rate results in lower expected contributions. However, over the long term, actual contributions will depend on actual investment returns and not the discount rate (or expected investment returns). If actual investment returns are lower than expected, contribution rates will increase in the future. It is important to set a realistic discount rate so that projections of future contributions for budgeting purposes will not be too low.

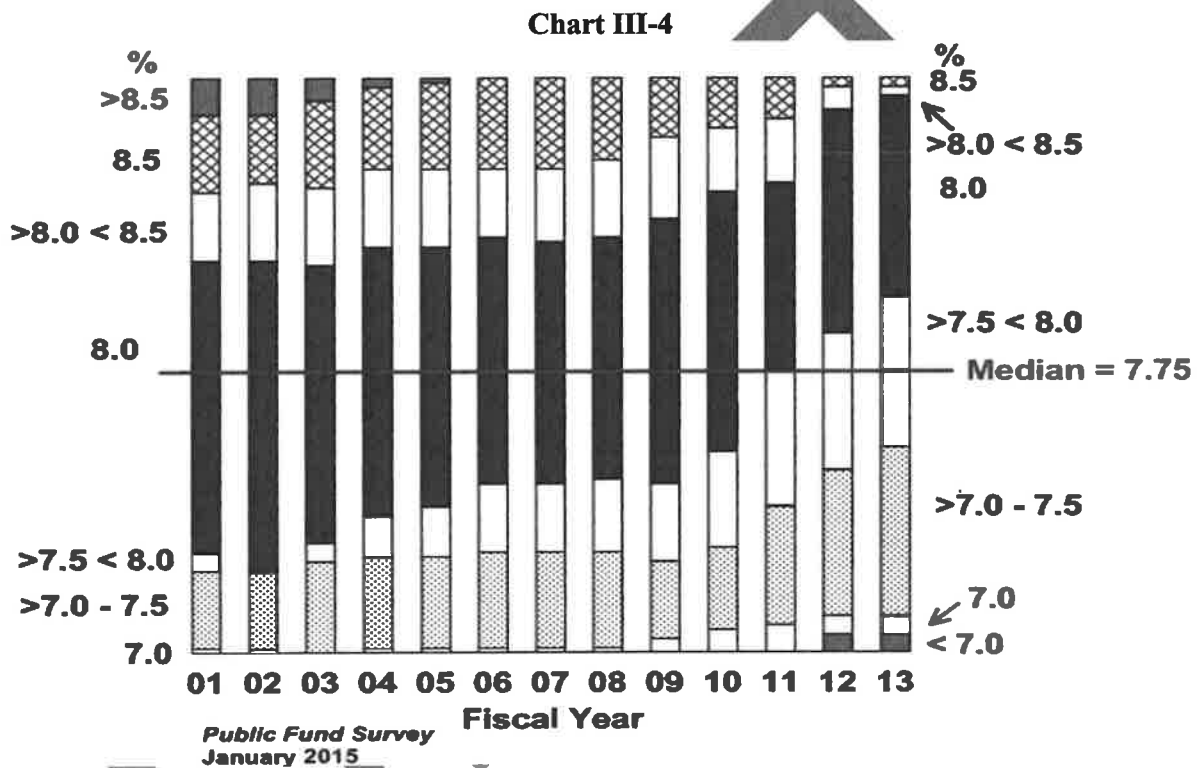
The SDTC Plans are closed to new entrants except for Non-Contract members. A closed plan has very different dynamics in terms of demographics as plan membership declines and grows older. This dynamic shortens the investment horizon and mitigating investment risk becomes crucial. As the asset mix changes to reflect the expected pattern of plan benefit payments, it will become more conservative and the expected return on plan assets will decrease. Thus, adjusting the plan's discount rate to be consistent with the trending decrease of asset returns is necessary.

RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015

SECTION III – ECONOMIC ASSUMPTIONS
DISCOUNT RATE

Other Large Public Retirement Plans

Based on the Public Fund Survey, developed by the National Association of State Retirement Administrators (NASRA) covering most of the largest public retirement systems in the country, there has been a general movement over the last decade to reduce the discount rate used in actuarial valuations. Chart III-4 shows the change in the distribution of assumptions since 2001. The median assumption is now 7.75% and the number of plans using a discount rate of 7.5% or lower has increased significantly. The survey is consistent with our experience that there has been a significant trend to reduce the discount rate in the last five years.

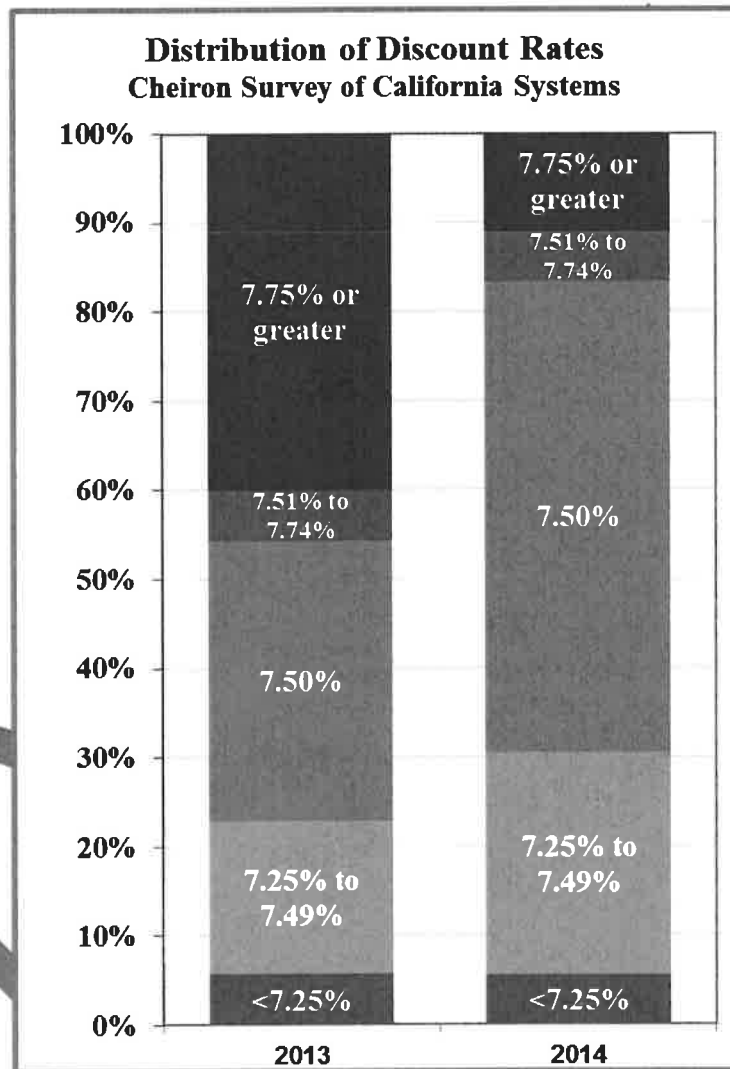


RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015

SECTION III – ECONOMIC ASSUMPTIONS
DISCOUNT RATE

In California, systems have lowered their discount rates even more than nationally. Cheiron's survey of 36 California systems shows a median discount rate of 7.50% and no system is using a discount rate greater than 7.75%. Chart III-5 shows the distribution of discount rates from our survey.

Chart III-5



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION III – ECONOMIC ASSUMPTIONS
DISCOUNT RATE**

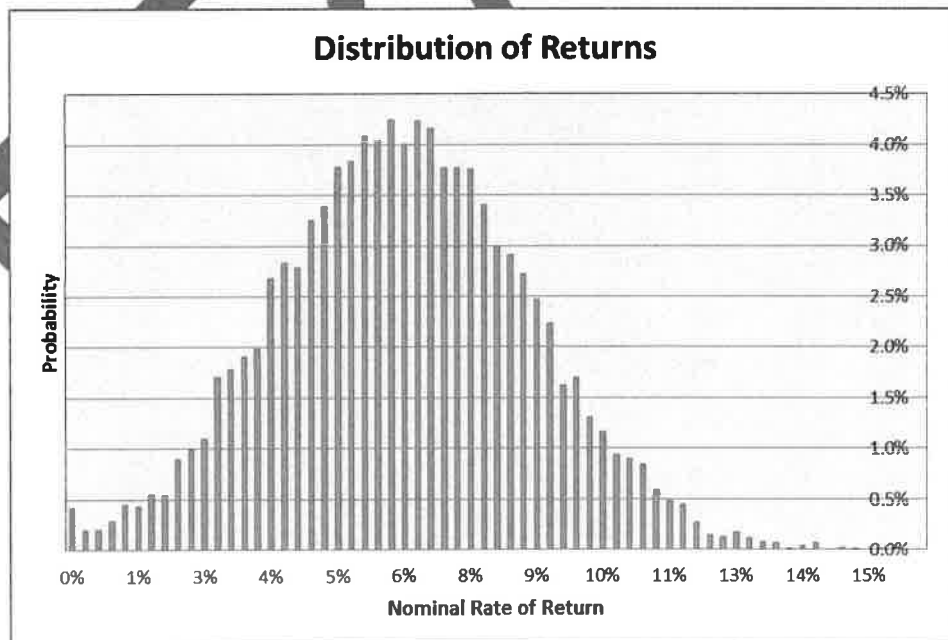
Target Asset Allocation and Future Expectations

The discount rate assumption depends on the anticipated average level of inflation and the anticipated average *real rate of return*. The real rate of return is the investment return in excess of underlying inflation. The expected average real rate of return is heavily dependent on asset mix: The portion of assets in stocks, bonds, and cash.

In Chart III-6 below, we have simulated the return derived using the asset mix of the SDTC Fund. The projected returns are derived by simulation, using the following algorithm:

1. The expected returns, standard deviation and correlation matrix for each asset class were taken from the capital market assumptions employed by the Plan's investment consultant. These assumptions were supplied by RVK with a 20-year time horizon.
2. The expected returns for each class were modified to adjust for the difference in the inflation assumption underlying the assumed asset class returns (2.5%) versus that used for Plan funding (3.0%)
3. 10,000 simulation trials for repeated 20-year periods were run, and the mean compound return was computed for each.
4. Given the distribution of returns, we have created a chart that shows the likelihood of the geometric mean return for a specific trial exceeding a specified assumption over a 20-year period, assuming that the return rates are net of investment expenses.

Chart III-6: Distribution of Returns Using RVK 20-Year Assumptions



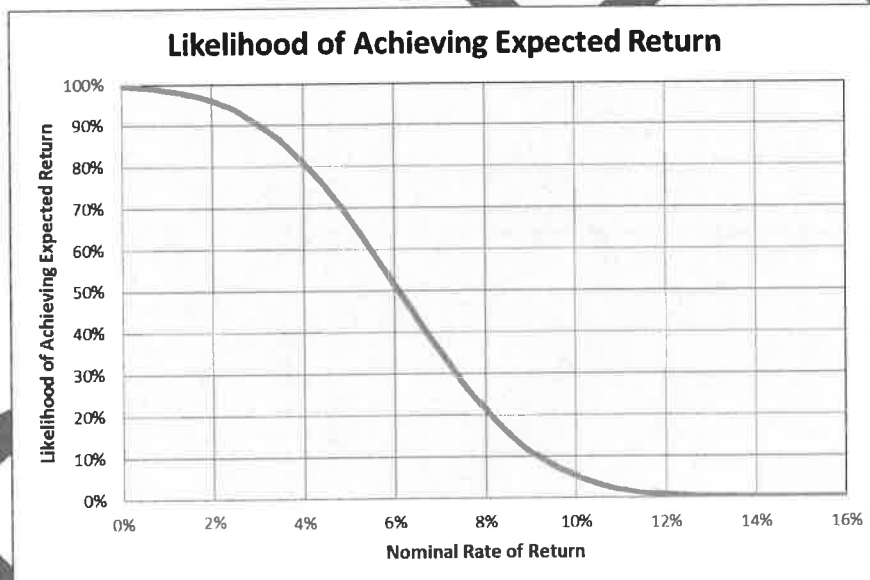
**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION III – ECONOMIC ASSUMPTIONS
DISCOUNT RATE**

The mean return from the simulation shown in Chart III-6 on the previous page is 6.1%, for a real return of 3.1%. It is important to note the wide range of outcomes shown in Chart III-6. Recall that we are showing the distribution of average returns over a 20-year period; these are not annual returns. Analysis of the simulation data shows there is a 50% probability of the 20-year average return being either lower than 4.5% or higher than 7.75%, and a 50% chance of the average return being between those two numbers. Another way of looking at the distribution is that the Plan has roughly a 50/50 chance of being within about 1.6% of the mean return.

Given the distribution of returns, we have also created Chart III-7 below that shows the likelihood of the geometric mean return for a specific trial exceeding a specified nominal return assumption over a 20-year period. Note that the curve crosses the 50% likelihood threshold near 6.0%, meaning that chances are around 50/50 that a 6.0% compound return will be achieved over a 20-year period. According to this model, the probability of achieving a 7.50% or higher compound return is just 28%.

Chart III-7



Therefore, the current investment return assumption of 7.5% has – according to the RVK capital market assumptions – about a 28% chance of being achieved over the next 20 years. This indicates that there is an inconsistency between the Plan discount rate and the long-term capital market assumptions of the Plan’s investment consultant.

Therefore, we recommend a reduction in the assumed return on Plan assets from 7.5% to 7.0% for the July 1, 2016 actuarial valuation. In addition, in the future further annual reductions of 0.10% or 0.25% increments should also be considered and reviewed by the Board and staff in consultation with the Plan’s actuary and investment consultant.

RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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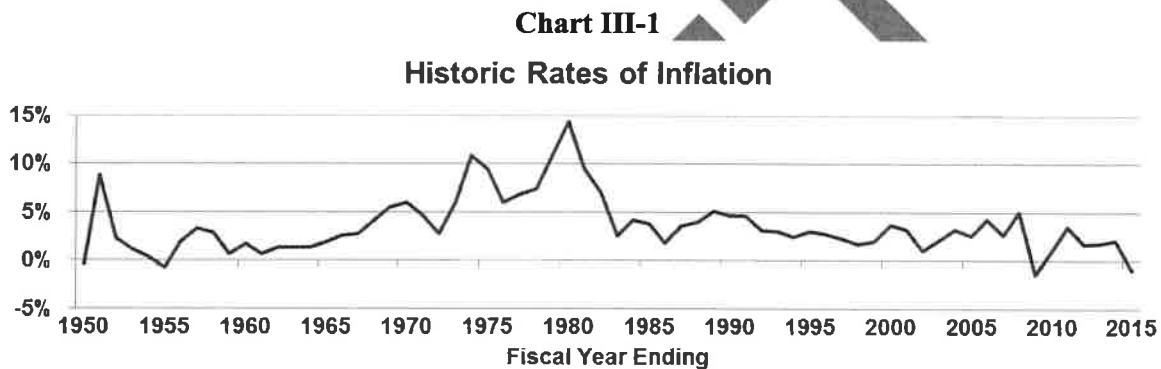
SECTION III – ECONOMIC ASSUMPTIONS
PRICE INFLATION

PRICE INFLATION

Long-term price inflation rates are the foundation of other economic assumptions. In a growing economy, wages and investments are expected to grow at the underlying inflation rate plus some additional real growth rate, whether it reflects productivity in terms of wages or risk premiums in terms of investments.

Historical Data

Chart III-1 below shows inflation for the U.S. by individual year since 1950.



Over the 50 years ending March 2015, the geometric average inflation rate for the U.S. has been about 4.1%, but this average is heavily influenced by the high inflation rates in the 1970s and early 1980s. Over the last 30 years, the geometric average inflation rate has been 2.7%.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION III – ECONOMIC ASSUMPTIONS
PRICE INFLATION**

Future Expectations

A measure of the market consensus of expected future inflation rates is the difference in yields between conventional treasury bonds and Treasury Inflation-Protected Securities (TIPS) at the same maturity. Table III-1 shows the yields on both types of bonds and the break-even inflation rate as of March 25, 2016. Break-even inflation is the level of inflation needed for an investment in TIPS to “break even” with an investment in conventional treasury bonds of the same maturity.

Table III-1

Break Even Inflation Based on Treasury Bond Yields			
Time to Maturity	Conventional Yield	TIPS Yield	Inflation
5 Years	1.4	-0.1	1.5
10 Years	1.9	0.3	1.6
20 Years	2.3	0.7	1.6

Data Source Federal Reserve, Constant Maturity Yields, Monthly Series

In the table above, we see that the consensus inflation expectations are 1.5% annually for the next five years, 1.6% annually over periods of 10 or more years.

The Federal Reserve Bank of Philadelphia publishes a quarterly survey of professional economic forecasters that includes their forecasts of inflation over the next 10 years. The survey for the first quarter of 2016 shows a median inflation forecast of 2.1%, a minimum forecast of about 1.6% and a maximum forecast of 3.1%.

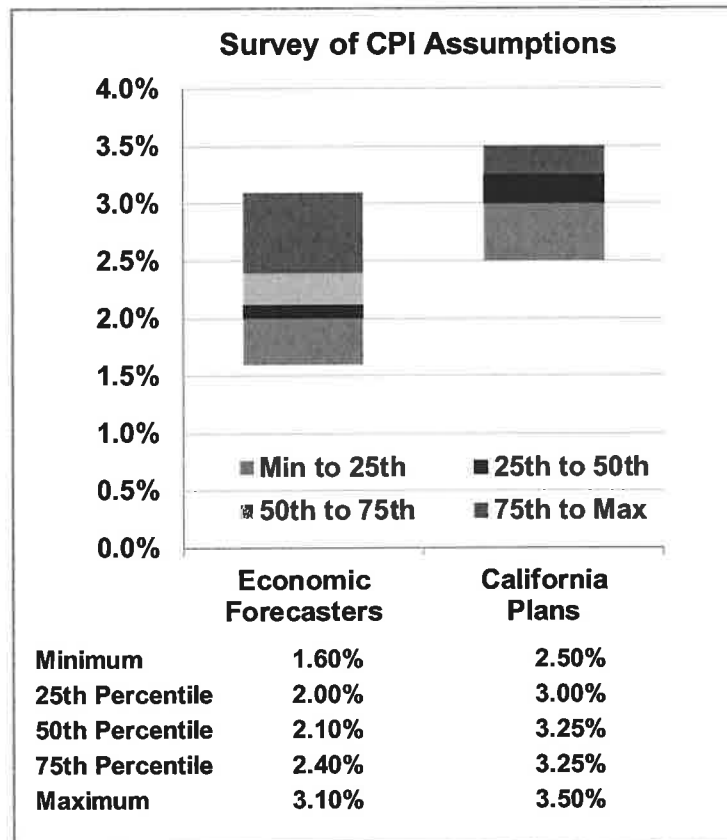
For 2014, the inflation assumptions used by Public Retirement Systems in California ranged from 2.50% to 3.50%. These assumptions tend to be based on time horizons that are longer than 10 years.

Chart III-2 on the next page shows the distribution of the current 10-year forecasts for CPI-U from the professional survey published by the Federal Reserve Bank of Philadelphia compared to the 2014 assumptions used by Public Retirement Systems in California. We note that all of the assumed inflation rates used by California plans are in the top quartile of the forecasts compiled by the Federal Reserve.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION III – ECONOMIC ASSUMPTIONS
PRICE INFLATION**

Chart III-2



Finally, RVK, the Plan's investment consultant, uses an inflation assumption of 2.5% for the next 20 years.

Based on all of these considerations, we believe a reasonable range for long-term price inflation for use in the Plan's actuarial valuations is between 2.25% and 3.5%. Therefore, the current assumption of 3.0% is reasonable. However, we recommend lowering the assumption to 2.75%, slightly above the 30-year historic average. Also, this recommendation is more in line with future expectations of inflation.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION III – ECONOMIC ASSUMPTIONS
WAGE INFLATION**

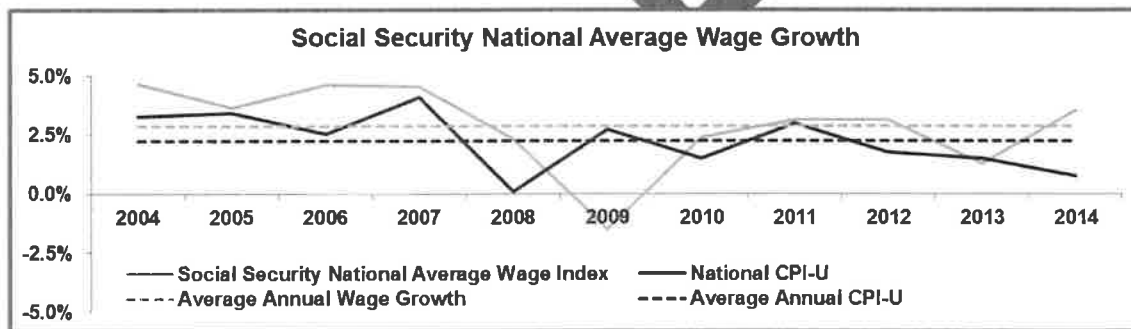
WAGE INFLATION

Wage inflation can be thought of as the annual across-the-board increase in wages. Wage inflation often exceeds price inflation by some margin reflecting the history of increased purchasing power. Individuals also receive salary increases in excess of the wage inflation rate as a result of longevity and promotion, and we study these increases as a part of the merit salary scale assumption

Wage inflation is used in the actuarial valuation as the minimum expected salary increase for an individual and, for purposes of amortizing the unfunded actuarial liability, the rate at which payroll is expected to grow over the long term, assuming a stable active member population.

Chart III-3 shows the increase in national average wages (as reported by the Social Security Administration) compared to inflation from 2004 through 2014.

Chart III-3



Over this period, national wage inflation averaged approximately 2.88% compared to annual price inflation of 2.23%; making wage increases 0.65% above inflation. Note the significant drop in 2008 and 2009 as well as the recent decline in national average wage growth in 2013. However, the national average wage growth in 2014, the latest year for which data is available, is 3.5%.

Despite this evidence of a small excess of wage inflation over price inflation, we often recommend that long range gains due to productivity, the collective bargaining process or other pressures should be assumed to be zero or minimal. While productivity tends to increase in many sectors of the economy, any long-term assumption of salary growth beyond inflation carries with it an assumed improvement in relative standard of living. For transit employees in particular, such pay increases beyond the rate of inflation have not been observed. Therefore, the current assumption of no increases in wages over inflation continues to be reasonable.

We recommend maintaining a wage inflation assumption equal to the assumed inflation rate.

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**SECTION - IV DEMOGRAPHIC ASSUMPTIONS
MORTALITY RATES**

Post-retirement mortality assumptions are typically developed separately by gender for both healthy annuitants and disabled annuitants. Pre-retirement mortality assumptions are developed separately for males and females. Unlike most of the other demographic assumptions that rely exclusively on the experience of the plan, for mortality, standard mortality tables and projection scales serve as the primary basis for the assumption.

The steps in our analysis are as follows:

1. Select a standard mortality table that is based on experience most closely matching the anticipated experience of SDTC members.
2. Compare actual SDTC experience to what would have been predicted by the selected standard table for the period of the experience study.
3. Adjust the standard table either fully or partially depending on the level of credibility for SDTC experience. This adjusted table is called the base table.
4. Select an appropriate standard mortality improvement projection scale and apply it to the base table.

Mortality assumptions are developed separately for active employees, healthy annuitants, and disabled annuitants. Generally, mortality experience of inactive participants with a deferred benefit best aligns with healthy annuitants and will be assumed as such. Within each of these groups, mortality rates are developed separately for males and females.

When actual SDTC experience is compared to that of the standard table, the experience is weighted based on the amount of the benefit being paid to each member (or salary for active members). Mortality studies in the U.S. have consistently shown that higher income individuals live longer than lower income individuals. Thus, it is important for a pension plan to use mortality assumptions that are weighted based on the actual benefits being paid and not just headcounts.

Historically we have proposed assumption changes when the Actual-to-Expected (A/E) ratio for the current assumption is less than 100%. However, for this Study we are recommending a change in this approach going forward, where the proposed assumptions are intended to track closely to actual experience (i.e. an A/E ratio close to 100%, but with a ratio slightly less than 100% still being reasonable). However, this new approach also includes an expectation that the assumed mortality rates will automatically become more conservative each year, since the actual mortality rates are also expected to decrease over time. This expected decrease in future mortality rates, also referred to as mortality improvement, is an assumption applied to the base table.

We also historically recommended the same table for active employees and healthy annuitants, specific to each group. However, recent mortality studies by the Society of Actuaries and other professional organizations have shown significantly lower rates of mortality for active employees versus those of the same age who are no longer working, therefore we recommend using separate tables for active versus inactive members.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION - IV DEMOGRAPHIC ASSUMPTIONS
MORTALITY RATES**

SDTC has been using the following assumptions, as adopted from the prior experience study:

Healthy active members, retirees, and beneficiaries

- For ATU Drivers and IBEW Mechanics and their spouses, beneficiaries and survivors, the Retired Pensioners (RP) 2000 Combined Healthy tables published by the Society of Actuaries with a one-year set-forward for females.
- For Clerical and Non-Contract Participants and their spouses, beneficiaries and survivors, the 1994 Group Annuity Mortality (GAM) table published by the Society of Actuaries, weighting male rates by 50% and female rates by 50%.

Disabled members

- For disabled ATU Drivers and IBEW Mechanics, the Retired Pensioners (RP) 2000 Combined Healthy tables published by the Society of Actuaries with a seven-year set-forward for males.
- For disabled Clerical and Non-Contract Participants, the Mortality Table for Female Participants Receiving Social Security Benefits published by the Pension Benefit Guaranty Corporation (PBGC) with no age adjustment.

The Society of Actuaries' Retirement Plans Experience Committee (RPEC) has released a new mortality improvement scale, Scale MP-2015. Scale MP-2015 reflects up-to-date data, approximately 20 years more current than that used in the development of prior scales.

MP-2015 represents the Society of Actuaries' most advanced actuarial methodology in incorporating mortality improvement trends with actual recent mortality rates, by using rates that vary not only by age but by calendar year – known as a two-dimensional approach to projecting mortality improvements. Scale MP-2015 was designed with the intent of being applied to mortality on a generational basis. The effect of this is to build in an automatic expectation of future improvements in mortality.

This is a different approach from building in a margin for conservatism in the current rates to account for the expectation that the same rates will be applied in future years, when mortality experience has improved. Recent reports issued by RPEC suggest that using generational mortality is a preferable approach, as it allows for an explicit declaration of the amount of future mortality improvement included in the assumptions.

RPEC has also recently released a new set of base mortality rate tables – the RP-2014 tables, which are intended to replace the RP-2000 tables and are based on a recent study of US defined benefit plan mortality experience. However, RPEC excluded all public pension plan data in the construction of these tables - including a large amount of California public sector data - because there were significant differences between the private and public sector retirement experience, and the new tables are expected to be used by private sector plans to meet accounting and federal funding requirements specific to private plans.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION - IV DEMOGRAPHIC ASSUMPTIONS
MORTALITY RATES**

Fortunately, there are alternative sets of assumptions that have been developed that may serve as a logical basis for developing mortality assumptions for SDTC. RPEC's most recent study showed that applying mortality improvement scale MP-2015 to the RP-2000 tables yielded similar life expectancies as the RP-2014 tables. As such, we are recommending the following assumptions:

Active members

- RP-2000 Combined Healthy mortality for males used for both male and female members, with generational improvements using Scale MP-2015.

Healthy retirees and beneficiaries

- RP-2000 Combined Healthy mortality tables with Blue Collar adjustment for males and no Collar adjustment for females, with generational improvements using Scale MP-2015.

Disabled members

- RP-2014 Disabled Annuitant mortality table for males with no adjustments.
- RP-2000 Combined Healthy mortality for female with no adjustments.

Even though there is likely to be some future mortality improvements for disabled members, future improvements have not been applied since mortality improvement scales specific to disabled annuitants have not been developed. Also, the liabilities attributable to disabled members are less than 1% of the total plan liabilities and incorporating mortality improvements for this group would have a de minimus impact.

Table IV-M1 on the following page show results separately active, healthy and disabled retirees for each group and separated for males and females. As we have done in prior experience studies, we have combined the experience of the past five years with that of the prior five-year period in order to have a more robust dataset to review. To set our base tables, the RP-2000 rates (without projection) were projected from their base year (2000) to the midpoint of the combined ten-year study period (2010).

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION - IV DEMOGRAPHIC ASSUMPTIONS
MORTALITY RATES**

Our proposed base mortality rates for all actives, healthy and disabled retired members are based on standard tables, which improve the A/E ratio both on a benefit-weighted and headcount basis from the current assumption. The exposures, actual and expected deaths shown in Table IV-M1 below are based on headcount for illustrative purposes. However, the proposed base mortality table recommendation is based on a benefit-weighted analysis. The match between the actual and expected experience across all statuses is close under the proposed assumptions: 101% based on a benefit-weighted analysis and 104% based on headcount only analysis.

Table IV-M1

Mortality Experience (2005 - 2015)								
	Exposures	Actual Deaths	Expected Deaths		Headcount Actual/Expected Ratio		Benefit-Weighted Actual/Expected Ratio	
			Current Assumption	Proposed Assumption	Current	Proposed	Current	Proposed
Actives								
Male	5,672	11	19.7	17.4	56%	63%	61%	69%
Female	1,776	11	4.2	4.5	262%	244%	269%	251%
Total Actives	7,448	22	23.9	21.9	92%	100%	95%	104%
Retired, Surv Spouse								
Male	4,006	106	111.5	104.1	95%	102%	94%	101%
Female	2,052	70	77.7	63.6	90%	110%	79%	99%
Total Retirees	6,058	176	189.2	167.7	93%	105%	90%	101%
Disabled								
Male	618	27	26	24.8	104%	109%	92%	95%
Female	424	3	7.5	5.5	40%	55%	36%	47%
Total Disabled	1,042	30	33.5	30.3	90%	99%	82%	88%
TOTAL	14,548	228	246.6	219.9	92%	104%	91%	101%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
MERIT SALARY INCREASES**

Demographic assumptions are used to predict membership behavior, including rates of retirement, termination, disability, and mortality. These assumptions are based primarily on the historical experience of SDTC Plan members. Some adjustments may be made where future experience is expected to differ from historical experience. Also, where SDTC experience is not fully credible and a standard table is available, such as the rate of mortality and future mortality improvement, the assumption is based on the standard tables with modification to reflect SDTC's actual experience. In addition to the demographic assumptions for participant turnover, assumptions for merit salary increases are also considered demographic assumptions since they too are based primarily on SDTC's historical participant experience.

MERIT SALARY INCREASES

Salary increases consist of three components: Increases due to cost of living maintenance (inflation), increases related to non-inflationary pressures on base pay (such as productivity increases), and increases in individual pay due to merit, such as longevity and promotion. Increases due to cost of living and non-inflationary base pay factors were addressed in the economic assumptions section of this report.

Charts IV-S1 through IV-S4 on the next pages compare the current pay patterns for each group with current pay data. Only increases due to merit (longevity and promotion) are considered here. In the graphs, the average pay of the active members of SDTC as of July 1, 2015 is plotted against service. A curve is then fitted to the average pay data, and this curve is used to determine a pay increase due to merit.

This is a *transverse* study of longevity and promotion pay increases: Salaries are examined at one point in time (the valuation date), as opposed to being observed over a number of years (a *longitudinal* study). This type of study serves as a reliable way to assess average increases in pay due to merit. The analysis begins with a plot of average pay versus service for the current active members of the SDTC Plans. With a homogeneous group of any size at all, the pattern of promotions and longevity increases during the career of an average employee is clearly visible in this analysis.

Longitudinal studies, which use changes in pay collected over several years, are often unreliable when used on a stand-alone basis due to the effects of inflation, collective bargaining, and management decisions during the term of the study.

In each chart, the current assumed pay increases due to merit are shown by the gold line and the proposed pay increases due to merit are shown by the teal line. The blue diamonds represent the average pay at each year of service. The charts show proposed modifications to the merit salary increases for ATU Drivers, Non-contract participants, and Clerical participants. However, the current assumption for IBEW Mechanics is close to the observed increases in merit pay, and no change in this group assumption is recommended at this time.

Details of the proposed merit salary increase assumptions by group by service can be found in the appendix of this report.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
MERIT SALARY INCREASES**

Chart IV-S1

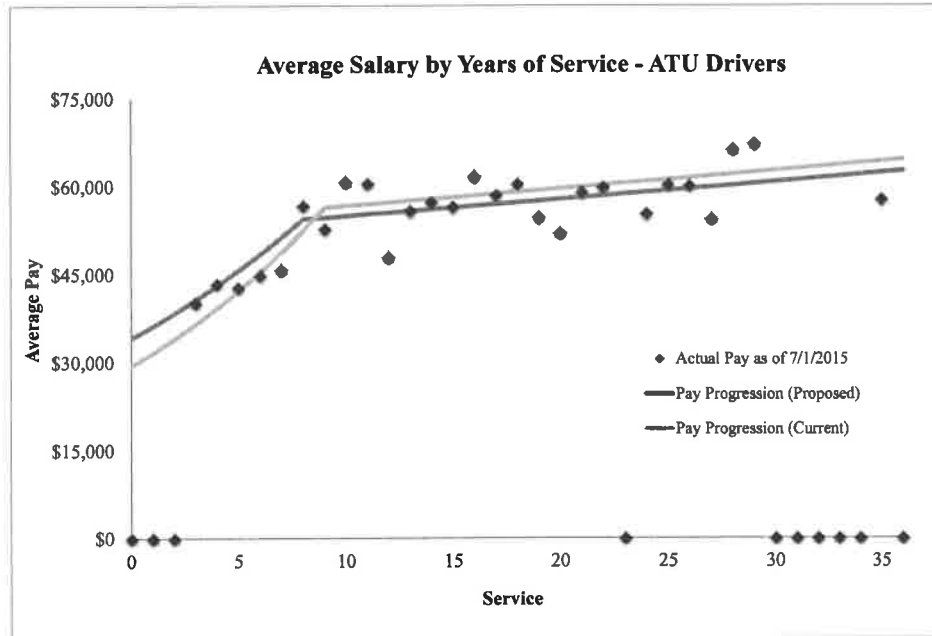
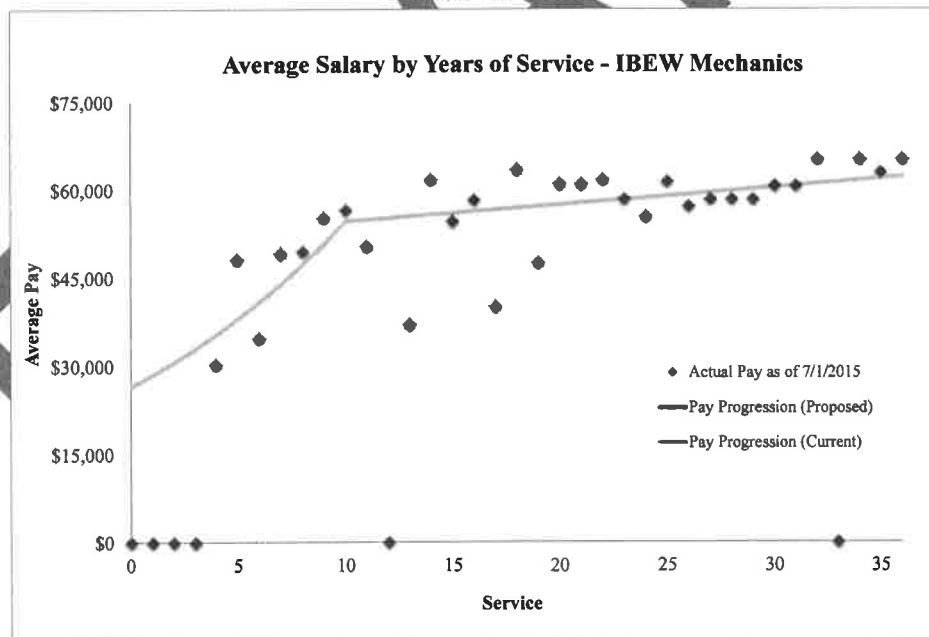


Chart IV-S2



RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015

SECTION IV – DEMOGRAPHIC ASSUMPTIONS
MERIT SALARY INCREASES

Chart IV-S3

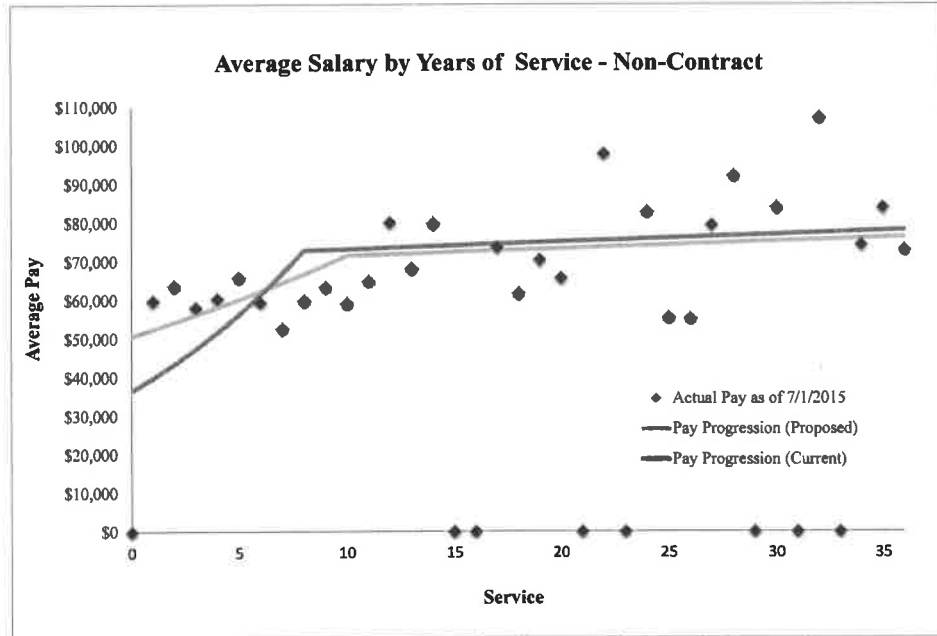
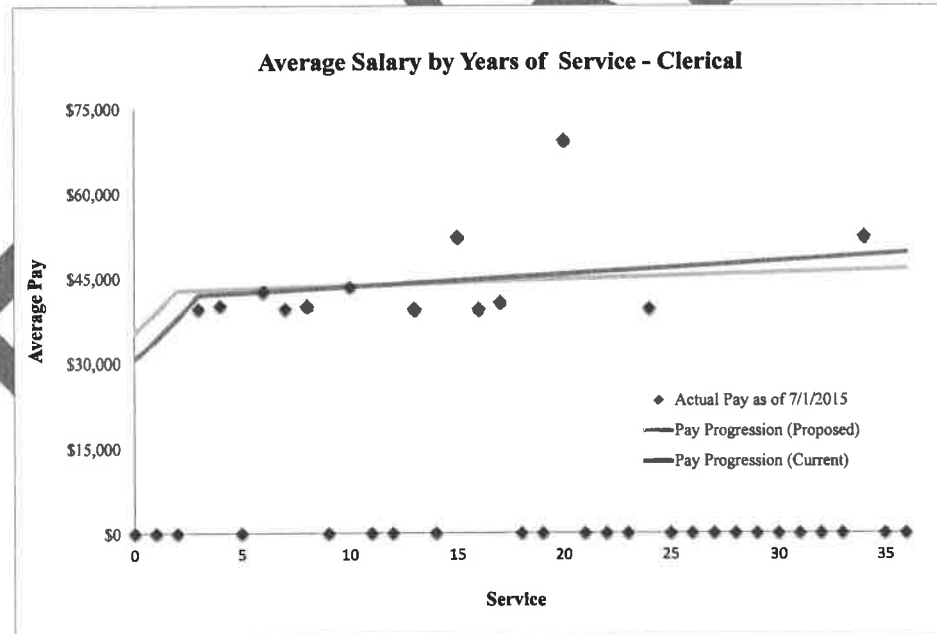


Chart IV-S4



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES**

ANALYSIS OF TURNOVER RATES

For all demographic assumptions with respect to turnover – retirement rates, termination rates, disability rates, and mortality rates - we determined the ratio of the actual number of decrements compared to the expected number of decrements (A/E ratio or actual-to-expected ratio). If the assumption is perfect, this ratio will be 100 percent. Otherwise, any recommended assumption change should move from the current A/E ratio towards 100 percent unless future experience is expected to be different than the experience during the period of study.

In addition, we calculated and graphed the 90 percent confidence interval, which represents the range within which the true decrement rate during the experience study period fell with 90 percent confidence. If there is insufficient data to calculate a confidence interval, the confidence interval is shown as the entire range of the graph. We generally propose assumption changes when the current assumption is outside the 90 percent confidence interval of the observed experience. Adjustments may be made to account for differences between future expectations and historical experience, to account for the past experience represented by the current assumption, and to maintain a neutral to slight conservative bias in the selection of the assumption. For mortality rates, we compared SDTC's experience to that of standard tables and made any adjustments to the selected mortality tables so as to bring the proposed assumption closer to an A/E ratio of 100.

In the tables and charts that follow, the current and recommended assumptions may be portrayed differently than the full assumption, for example, information may be aggregated into age groups rather than incremental ages. Appendices A and B contain the current and proposed assumptions in their entirety.

RETIREMENT RATES

The current retirement rates, which vary by age and by group, are applied to all members who are eligible to retire. As a result, a member who is age 60 with 10 years of service, for example, is assumed just as likely to retire as a member within the same group who is age 60 with 30 years of service. SDTC's retirement experience was examined to see if there was any credible relation in retirement rates based on service or gender. Actual retirement behavior showed no sign of such correlation and therefore the proposed assumption continues to be based on age and group.

In the tables and charts that follow, detailed retirement experience results are shown by group of SDTC - ATU Drivers, IBEW Mechanics, and Clerical and Non-contract participants. The tables and charts are displayed by age groups rather than incremental ages to provide a better view of the credibility of Plan experience.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES**

Table IV-R1 shows the calculation of actual-to-expected ratios for ATU Drivers.

Table IV-R1

ATU Drivers Retirement Rates									
Age	Exposures	Retirements			Retirement Rates			Actual to Expected Ratios	
		Actual	Current	Recommended	Actual	Current	Recommended	Current	Recommended
55-59	381	35	38	38	9%	10%	10%	92%	92%
60-61	123	11	18	18	9%	15%	15%	60%	60%
62-64	137	26	41	34	19%	30%	25%	63%	76%
65	26	10	10	10	38%	40%	40%	96%	96%
66-69	40	11	12	12	28%	30%	30%	92%	92%
Total	707	93	120	113	13%	17%	16%	77%	82%

In Table IV-R1, the exposures show the number of ATU Drivers over the study period in each age group who were eligible for retirement. The three columns under Retirements show the actual number of participants who retired, the current expected number of retirements, and the number of retirements under the recommended assumption based on the exposures. The Retirement Rates show the actual number of participants who retired as a percent of exposures, followed by the current and recommended assumptions. Finally, the actual-to-expected ratio is calculated for the current and recommended retirement rates. The current aggregate A/E ratio is 77%, which means that there were fewer actual retirements than expected under the current assumption. Refinements were made to this assumption, decreasing the recommended assumed retirement rates between ages 62-64 which increased the total recommended aggregate A/E ratio to 82%.

RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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SECTION IV – DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES

Chart IV-R1
ATU Drivers Retirement Rates

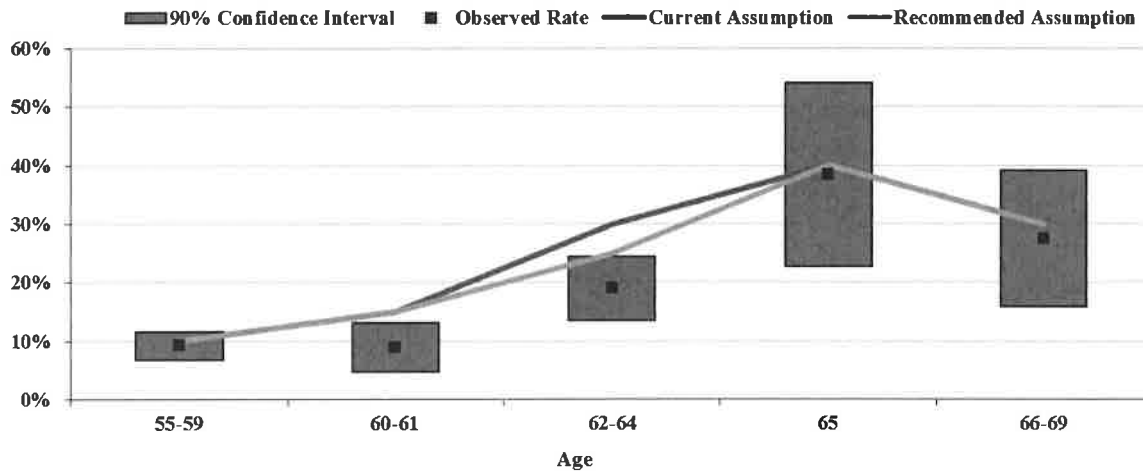


Chart IV-R1 graphically depicts the retirement experience graphically along with the 90 percent confidence interval over the study period for ATU Drivers by age group.

The current assumption for ages 62-64 is outside the 90 percent confidence interval whereas the recommended assumption to decrease retirement rates from 30% to 25% brings the recommended assumption inside the to this interval.

In prior experience study, the actual retirement rate for ages 60-61 was 20% and the retirement rate was increased from 10% to 15% for those ages. For this five-year study period, the actual retirement rate for ages 60-61 is 9%. However, in light of the combined ten year period experience, we do not recommending decreasing the rates.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES**

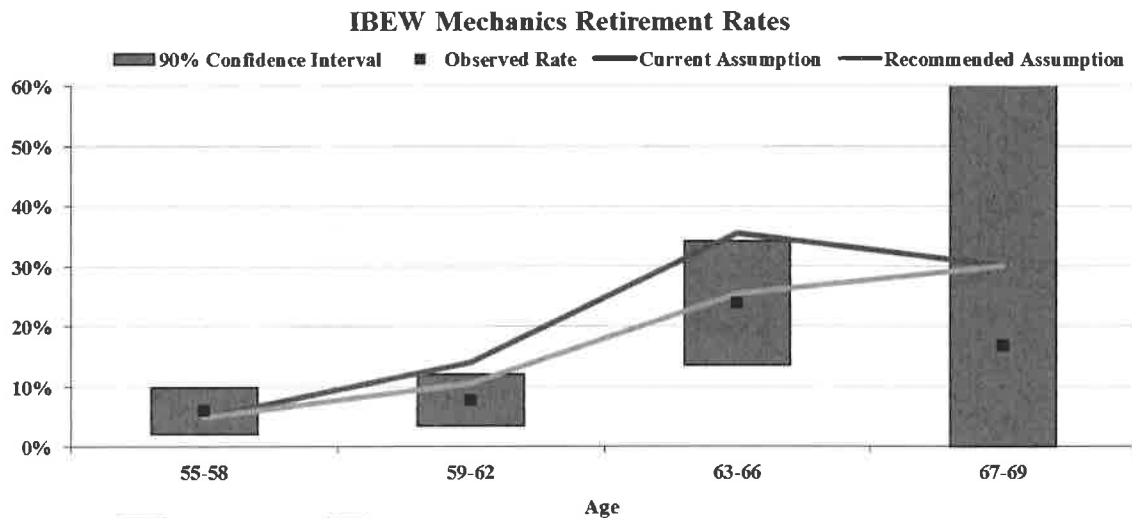
Table IV-R2 shows the calculation of actual-to-expected ratios IBEW Mechanics. Chart IV-R2 shows the information graphically along with the 90 percent confidence interval.

The data shows lower actual retirement rates than expected under the current assumption, especially at ages 63-66. The proposed assumptions reduce the overall assumed rate of retirement to be more in line with plan experience. The aggregate A/E ratio increases from 69% to 88%.

Table IV-R2

IBEW Mechanics Retirement Rates									
Age	Exposures	Retirements			Retirement Rates			Actual to Expected Ratios	
		Actual	Current	Recommended	Actual	Current	Recommended	Current	Recommended
55-58	100	6	5	5	6%	5%	5%	120%	120%
59-62	104	8	15	11	8%	14%	11%	55%	72%
63-66	46	11	16	12	24%	35%	25%	67%	94%
67-69	6	1	2	2	17%	30%	30%	56%	56%
Total	256	26	38	30	10%	15%	12%	69%	88%

Chart IV-R2



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES**

Table IV-R3 shows the calculation of actual-to-expected ratios for Clerical and Non-contract participants. Chart IV-R3 shows the information graphically along with the 90 percent confidence interval.

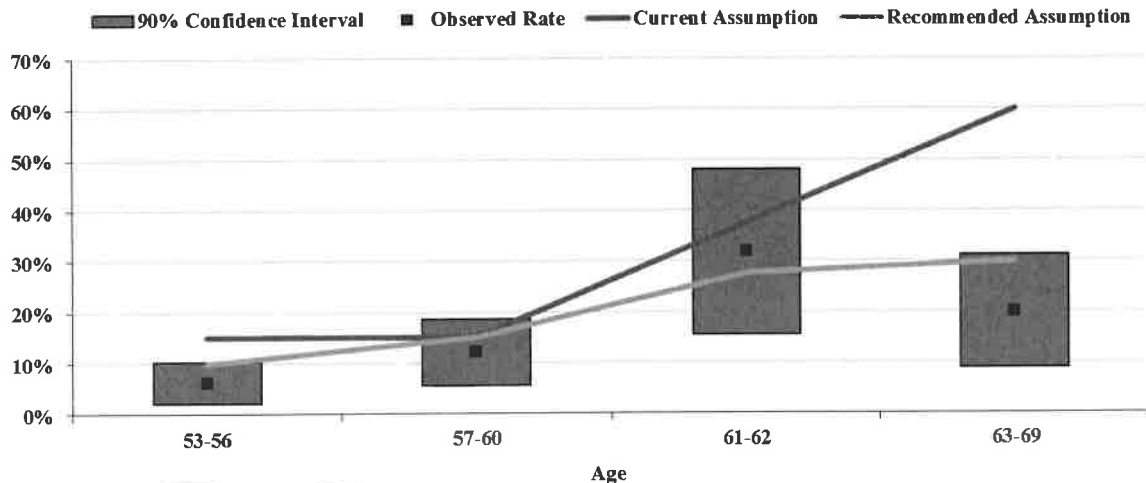
The data shows lower actual retirement rates than expected under the current assumption, especially over age 62. The proposed assumptions decrease the aggregate assumed rate of retirement to be more in line with plan experience. The aggregate A/E ratio increases from 52% to 77%.

Table IV-R3

Clerical/Non-Contract Retirement Rates									
Age	Exposures	Retirements			Retirement Rates			Actual to Expected Ratios	
		Actual	Current	Recommended	Actual	Current	Recommended	Current	Recommended
53-56	97	6	15	10	6%	15%	10%	41%	62%
57-60	66	8	10	10	12%	15%	15%	81%	81%
61-62	22	7	8	6	32%	38%	28%	85%	116%
63-69	35	7	21	11	20%	60%	30%	33%	67%
Total	220	28	54	36	13%	24%	16%	52%	77%

Chart IV-R3

Clerical/Non-Contract Retirement Rates



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
TERMINATION RATES**

Termination rates reflect the frequency at which active members leave employment for reasons other than retirement, death, or disability. Currently, there is one set of service-based termination rates for ATU Drivers and IBEW Mechanics, another set of service-based termination rates for Non-Contract members, and a set of age-based rates for Clerical members.

For each termination rate group, we determined the ratio of the actual number of terminations at each age compared to the expected number of terminations (A/E ratio). If the assumption is perfect, this ratio will be 100 percent. In addition, we calculated and graphed the 90 percent confidence interval, which represents the range within which the true termination rate during the experience study period fell with 90 percent confidence. If there is insufficient data to calculate a confidence interval, the confidence interval is shown as the entire range of the graph. We generally propose assumption changes when the current assumption is outside the 90 percent confidence interval of the observed experience. However, adjustments are made to account for differences between future expectations and historical experience, to account for the past experience represented by the current assumption, and to maintain a neutral to slight conservative bias in the selection of the assumption.

It is important to note that once a participant is eligible to retire the rate of termination is assumed to be zero regardless of the service-based or age-based termination rate in the assumptions. Therefore, those who are retirement eligible are not considered in this termination rate analysis.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
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**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
TERMINATION RATES**

Table IV-T1 shows the calculation of actual-to-expected ratios for ATU and IBEW members, and Chart IV-T1 shows the information graphically along with the 90 percent confidence interval.

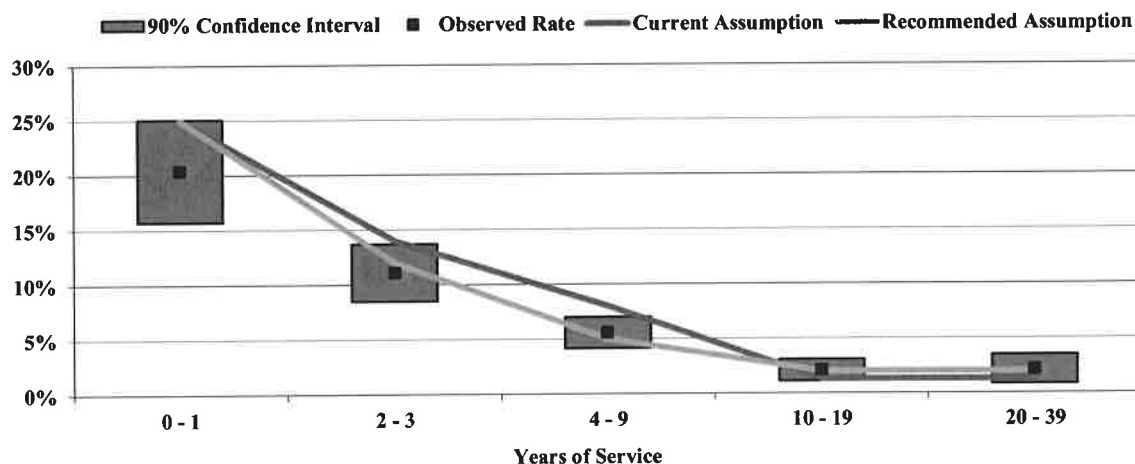
The data shows lower actual termination rates than expected under the current assumption for members with less than ten years of service and higher actual termination rates than expected for members with ten or more years of service. The proposed assumption is adjusted slightly for each of these observations. In aggregate, the proposed assumptions decrease the assumed rates of termination to be more in line with plan experience. The A/E ratio increases from 82% to 95%.

Table IV-T1

ATU Driver/IBEW Mechanic Termination Rates									
Service	Exposures	Terminations			Termination Rates			Actual to Expected Ratios	
		Actual	Current	Recommended	Actual	Current	Recommended	Current	Recommended
0 - 1	201	41	50	50	20%	25%	25%	82%	82%
2 - 3	388	43	54	47	11%	14%	12%	79%	92%
4 - 9	700	39	56	35	6%	8%	5%	70%	111%
10 - 19	573	12	7	11	2%	1%	2%	161%	105%
20 - 39	325	7	4	7	2%	1%	2%	166%	108%
Total	2,187	142	172	150	6%	8%	7%	82%	95%

Chart IV-T1

ATU Driver/IBEW Mechanic Termination Rates



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
TERMINATION RATES**

Table IV-T2 shows the calculation of actual-to-expected ratios for Non-Contract members, and Chart IV-T2 shows the information graphically. Given the low incidence of termination for Non-Contract members over the study period there is insufficient data to calculate confidence intervals thus all intervals are shown as the entire range of the graph.

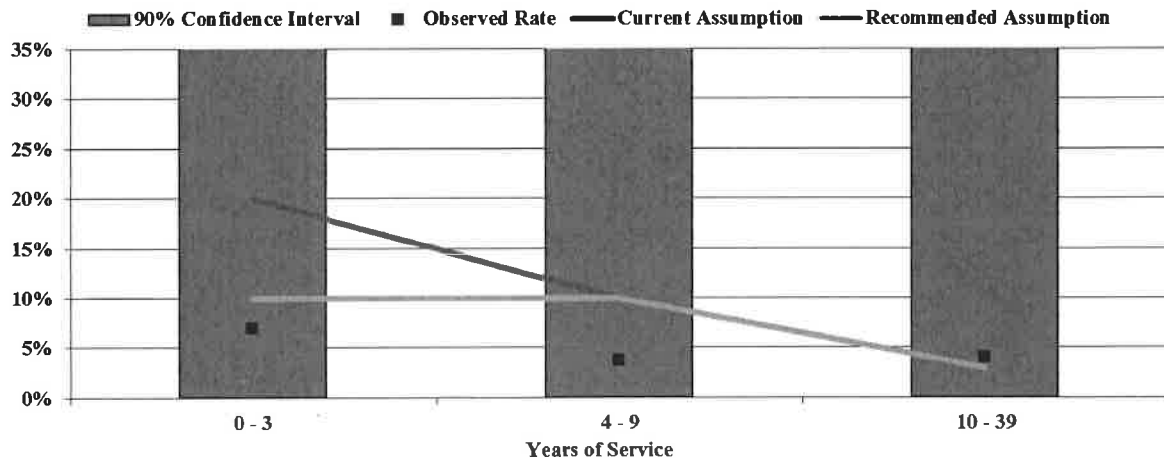
The data shows lower actual termination rates than expected under the current assumption. The proposed assumption decreases the assumed rate of termination for members with less than four years of service, and thus decreases the aggregate termination rate. This recommended modification to the assumption increases the aggregate A/E ratio from 53% percent to 72%.

Table IV-T2

Non-Contract Termination Rates									
Service	Exposures	Terminations			Termination Rates			Actual to Expected Ratios	
		Actual	Current	Recommended	Actual	Current	Recommended	Current	Recommended
0 - 3	43	3	9	4	7%	20%	10%	35%	70%
4 - 9	53	2	5	5	4%	10%	10%	38%	38%
10 - 39	99	4	3	3	4%	3%	3%	135%	135%
Total	195	9	17	13	5%	9%	6%	53%	72%

Chart IV-T2

Non-Contract Termination Rates



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
TERMINATION RATES**

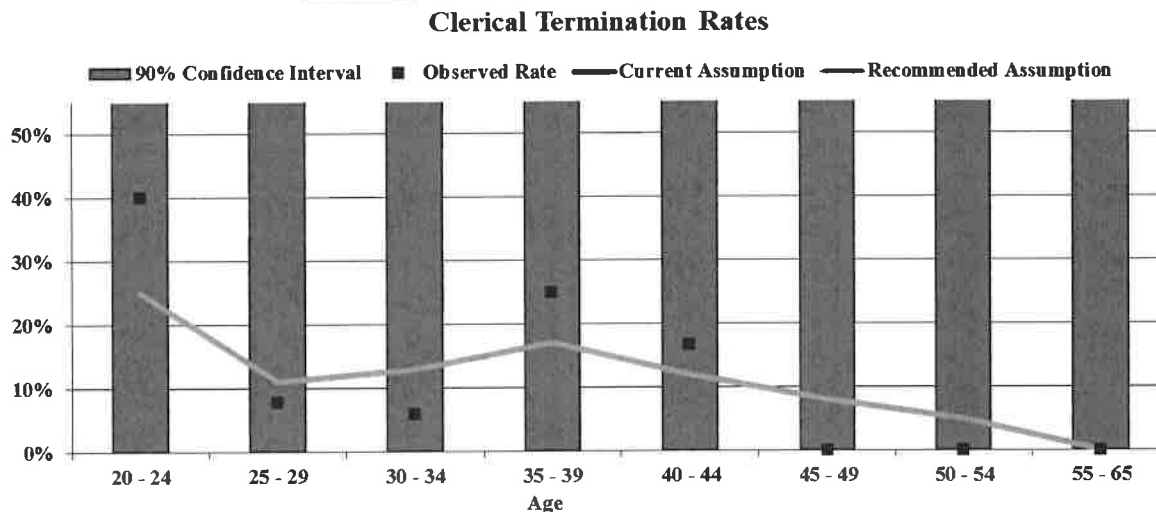
Table IV-T3 shows the calculation of actual-to-expected ratios for Clerical members, and Chart IV-T3 shows the information graphically. As was the case for Non-contract members, given the low incidence of termination for Clerical members over the study period there is insufficient data to calculate confidence intervals thus all intervals are shown as the entire range of the graph.

The data shows slightly lower termination rates than expected under the current assumption. However, we are not recommending any changes to the current rates due to the lack of credible data.

Table IV-T3

Clerical Termination Rates									
Age	Exposures	Terminations			Termination Rates			Actual to Expected Ratios	
		Actual	Current	Recommended	Actual	Current	Recommended	Current	Recommended
20 - 24	5	2	1	1	40%	25%	25%	160%	160%
25 - 29	13	1	1	1	8%	11%	11%	70%	70%
30 - 34	17	1	2	2	6%	13%	13%	45%	45%
35 - 39	4	1	1	1	25%	17%	17%	147%	147%
40 - 44	6	1	1	1	17%	12%	12%	139%	139%
45 - 49	20	0	2	2	0%	8%	8%	0%	0%
50 - 54	17	0	1	1	0%	5%	5%	0%	0%
55 - 65	3	0	0	0	0%	0%	0%	0%	0%
Total	85	6	9	9	7%	10%	10%	69%	69%

Chart IV-T3



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION IV – DEMOGRAPHIC ASSUMPTIONS
DISABILITY RATES**

This section analyzes the incidence of disability. All members are eligible for disability benefits after earning five years of credited service. There have been zero incidences of disability over the five-year study period for Clerical and Non-contract participants, as was the case during the prior experience study period. As such, the disability rate assumption for Clerical and Non-contract participants continues to be zero.

For ATU Drivers and IBEW Mechanics, the amount of disability experience is fairly limited; only four disabilities have occurred during the study period. Table IV-D1 shows the calculation of actual-to-expected ratios for ATU and IBEW members by age grouping, and Chart IV-D1 shows the information graphically along with the 90 percent confidence interval. Since there is insufficient data to calculate a confidence interval, the confidence interval is shown as the entire range of the graph at all age groupings.

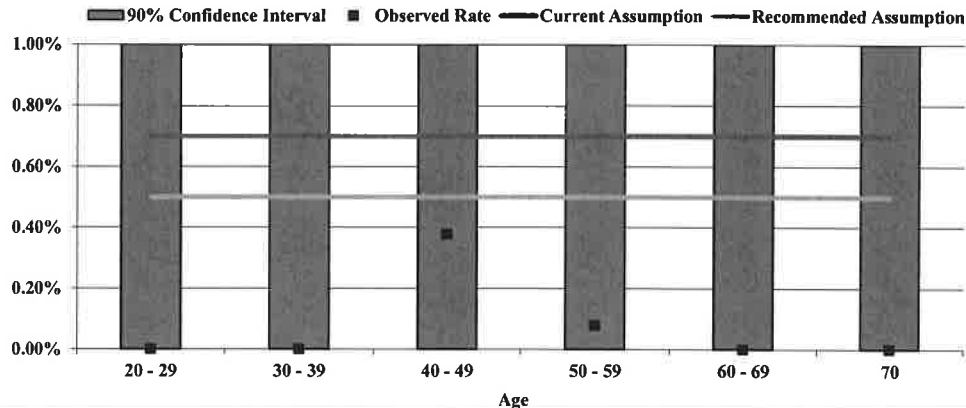
The data shows that disability rates are notably less than the current assumption. This finding is consistent with the prior experience study where the actual disability rate was only 0.5%. We are proposing to reduce the disability assumption for these members from 0.7% to 0.5% at all ages. The current assumption has an A/E ratio of 18% and the recommended assumption has an A/E ratio of 25%.

Table IV-D1

ATU Driver/IBEW Mechanic Disability Rates									
Age	Exposures	Disabilities			Disability Rates			Actual to Expected Ratios	
		Actual	Current	Recommended	Actual	Current	Recommended	Current	Recommended
20 - 29	196	0	1	1	0.0%	0.7%	0.5%	0%	0%
30 - 39	373	0	3	2	0.0%	0.7%	0.5%	0%	0%
40 - 49	794	3	6	4	0.4%	0.7%	0.5%	54%	76%
50 - 59	1,280	1	9	6	0.1%	0.7%	0.5%	11%	16%
60 - 69	504	0	4	3	0.0%	0.7%	0.5%	0%	0%
70	4	0	0	0	0.0%	0.7%	0.5%	0%	0%
Total	3,151	4	22	16	0.1%	0.7%	0.5%	18%	25%

Chart IV-D1

ATU Driver/IBEW Mechanic Disability Rates



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

**SECTION IV DEMOGRAPHIC ASSUMPTIONS
OTHER DEMOGRAPHIC ASSUMPTIONS**

POST RETIREMENT COLA

Only Non-Contract retirees received an annual Cost of Living Adjustment (COLA). The COLA is subject to a 2% annual maximum, and as such, the current assumption is that benefits for Non-Contract retirees are assumed to increase after retirement at the rate of 2.0% per year. No change in this assumption is recommended at this time.

PLAN EXPENSES

An explicit assumption was made for Plan administrative expenses of \$250,000 beginning with the July 1, 2014 actuarial valuation, and was included in the annual cost calculation. The Plan's administrative expenses during the last two years have averaged approximately \$260,000. We recommend increasing the Plan's assumed administrative expenses for 2016 to \$260,000, increasing each year at the assumed rate of inflation.

FAMILY COMPOSITION

The current assumption is that 100% of active SDTC participants have beneficiaries eligible for pre-retirement death benefits and that male spouses are four years older than their wives. SDTC does not provide spouse information for retirees. Therefore, we have made a conservative assumption – that all active members are married. No change in this assumption is recommended at this time.

EMPLOYMENT STATUS

The current assumption is that there are no future transfers among Participant groups. No change in this assumption is recommended at this time.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX A – SUMMARY OF CURRENT ASSUMPTIONS

All of the following actuarial assumptions were determined in accordance with the results of the Actuarial Experience Study - January 1, 2006 through June 30, 2010. The rationale for these assumptions can be found in the Actuarial Experience Study report dated April 27, 2011.

1. Rate of Return

The annual rate of return on all Plan assets is assumed to be 7.50% net of investment expenses.

2. Cost of Living

The cost of living as measured by the Consumer Price Index (CPI) will increase at the rate of 3.00% per year.

3. Post Retirement COLA

Benefits for Non-Contract retirees assumed to increase after retirement at the rate of 2.0% per year.

4. Pay for Benefits

In most cases pay for benefits is based on each Participant's pay during the year preceding the valuation date. Special procedures are used in some cases, as noted. For full-time Participants:

<u>Unit</u>	<u>Pay for Continuing Participants</u>	<u>Pay for New Participants</u>
Drivers	The larger of gross pay or 1,800 hours times the member's hourly rate	
Mechanics	2,150 hours times the Participant's hourly rate	
Clerical	Gross pay	The larger of gross pay or 2,100 hours times the Participant's hourly rate
Non-Contract	Gross pay	The larger of gross pay or 2,080 hours times the Participant's hourly rate

Part-time Participants are assumed to work 1,040 hours in the calculations shown above.

5. Increases in Pay

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX A – SUMMARY OF CURRENT ASSUMPTIONS

Assumed pay increases for active Participants consist of increases due to inflation (cost of living adjustments) and those due to merit, such as longevity and promotion. Based on an analysis of pay levels and service, we developed the following assumptions:

Current Longevity and Promotion Increases				
Service	ATU Drivers	IBEW Mechanics	Clerical	Non-Contract
0	7.50%	7.50%	11.00%	9.00%
1	7.50%	7.50%	11.00%	9.00%
2	7.50%	7.50%	11.00%	9.00%
3	7.50%	7.50%	0.50%	9.00%
4	7.50%	7.50%	0.50%	9.00%
5	7.50%	7.50%	0.50%	9.00%
6	7.50%	7.50%	0.50%	9.00%
7	7.50%	7.50%	0.50%	9.00%
8	7.50%	7.50%	0.50%	0.25%
9	0.50%	7.50%	0.50%	0.25%
10+	0.50%	0.50%	0.50%	0.25%

In addition, annual adjustments in pay due to inflation will equal the CPI, for an additional annual increase of 3.0%. The combination of rates is compounded rather than using an additive method.

6. Active and Retired Participant Mortality

Rates of mortality for active and retired Drivers and Mechanics and their spouses, beneficiaries and survivors are given by the Retired Pensioners (RP) 2000 Combined Healthy Tables published by the Society of Actuaries, with a one-year set-forward for females.

Rates of mortality for active and retired Clerical and Non-Contract Participants and their spouses, beneficiaries and survivors are given by the 1994 Group Annuity Mortality (GAM) Table published by the Society of Actuaries, weighting male rates by 50% and female rates by 50%.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX A – SUMMARY OF CURRENT ASSUMPTIONS

7. Disabled Participant Mortality

Rates of mortality for disabled Drivers and Mechanics are given by the Retired Pensioners (RP) 2000 Combined Healthy Tables published by the Society of Actuaries, with a seven-year set-forward for males.

Rates of mortality for Clerical and Non-Contract disabled Participants are given by the Mortality Table for Female Participants Receiving Social Security Benefits published by the Pension Benefit Guaranty Corporation (PBGC), with no age adjustment.

8. Mortality Improvement

No explicit provision for mortality improvement is included in this study. The mortality tables assumed for Plan funding were compared with actual experience over the years 2001 through 2010. We found that the actual number of deaths was 30% higher than the expected number for the total Plan. This means that there is a conservative implicit margin for future mortality improvement. Similar margins were also found when the retired population only was examined.

9. Disability

Among Drivers and Mechanics, 0.70% of Participants eligible for a disability benefit are assumed to become disabled each year. Disabled Participants are assumed not to return to active service.

10. Plan Expenses

Plan administrative expenses of \$250,000 are included in the annual cost calculated.

11. Family Composition

100% of active Participants are assumed married. Male spouses are assumed four years older than their wives are.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX A – SUMMARY OF CURRENT ASSUMPTIONS

12. Service Retirement

Retirement is assumed to occur in accordance with the rates shown in the following table:

Age	ATU Drivers	IBEW Mechanics	Clerical/Non Contract
52 ¹	0%	0%	15%
53-54	0%	0%	15%
55-58	10%	5%	15%
59	10%	10%	15%
60	15%	10%	15%
61	15%	10%	15%
62-64	30%	30%	60%
65	40%	55%	60%
66-69	30%	30%	60%
70 and older	100%	100%	100%

¹ NonContract retirement assumption at age 52 is for PEPPRA participants only, 0% otherwise.

13. Termination

Termination for ATU and IBEW Participants is assumed to occur in accordance with the rates shown in the following table:

Age	0-1 Years	2-3 Years	4-9 Years	10+ Years
20-24	25.0%	14.0%	8.0%	1.3%
25-29	25.0%	14.0%	8.0%	1.3%
30-34	25.0%	14.0%	8.0%	1.3%
35-39	25.0%	14.0%	8.0%	1.3%
40-44	25.0%	14.0%	8.0%	1.3%
45-49	25.0%	14.0%	8.0%	1.3%
50-54	25.0%	14.0%	8.0%	1.3%
55 and older	25.0%	14.0%	8.0%	0.0%

Termination for Non-Contract Participants is assumed to occur in accordance with the rates shown in the following table:

Service	0-3 Years	4-9 Years	10+ Years
	20.0%	10.0%	3.0%

**RETIREMENT PLANS OF SAN DIEGO TRASNIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX A – SUMMARY OF CURRENT ASSUMPTIONS

Termination for Clerical Participants is assumed to occur in accordance with the rates shown in the following table:

Age	Rate
20-24	25.0%
25-29	11.0%
30-34	13.0%
35-39	17.0%
40-44	12.0%
45-49	8.0%
50-54	5.0%
55 and older	0.0%

14. Employment Status

No future transfers among Participant groups are assumed.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX B – SUMMARY OF PROPOSED ASSUMPTIONS

The recommended assumptions have not yet been adopted by the Board. The demographic assumptions are based on an experience study covering the period from July 1, 2010 through June 30, 2015, with the exception of the mortality assumption that is based on experience from July 1, 2005 through June 30, 2015.

1. Rate of Return

The annual rate of return on all Plan assets is assumed to be 7.00% net of investment expenses.

2. Cost of Living

The cost of living as measured by the Consumer Price Index (CPI) will increase at the rate of 2.75% per year.

3. Post Retirement COLA

Benefits for Non-Contract retirees assumed to increase after retirement at the rate of 2.0% per year.

4. Pay for Benefits

In most cases pay for benefits is based on each Participant's pay during the year preceding the valuation date. Special procedures are used in some cases, as noted. For full-time Participants:

<u>Unit</u>	<u>Pay for Continuing Participants</u>	<u>Pay for New Participants</u>
Drivers	The larger of gross pay or 1,800 hours times the member's hourly rate	
Mechanics	2,150 hours times the Participant's hourly rate	
Clerical	Gross pay	The larger of gross pay or 2,100 hours times the Participant's hourly rate
Non-Contract	Gross pay	The larger of gross pay or 2,080 hours times the Participant's hourly rate

Part-time Participants are assumed to work 1,040 hours in the calculations shown above.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX B – SUMMARY OF PROPOSED ASSUMPTIONS

5. Merit Pay (Longevity and Promotion) Increases

Assumed pay increases for active Participants consist of increases due to inflation (cost of living adjustments) and those due to longevity and promotion. Based on an analysis of pay levels and service, we developed the following assumptions:

Proposed Longevity and Promotion Increases				
Service	ATU Drivers	IBEW Mechanics	Clerical	Non-Contract
0	6.00%	7.50%	10.00%	3.50%
1	6.00%	7.50%	10.00%	3.50%
2	6.00%	7.50%	0.25%	3.50%
3	6.00%	7.50%	0.25%	3.50%
4	6.00%	7.50%	0.25%	3.50%
5	6.00%	7.50%	0.25%	3.50%
6	6.00%	7.50%	0.25%	3.50%
7	6.00%	7.50%	0.25%	3.50%
8	0.50%	7.50%	0.25%	3.50%
9	0.50%	7.50%	0.25%	3.50%
10+	0.50%	0.50%	0.25%	0.25%

In addition, annual adjustments in pay due to inflation will equal the CPI, for an additional annual increase of 2.75%. The combination of rates is compounded rather than using an additive method.

6. Active Participant Mortality

Rates of mortality for all active Participants are given by the Combined Healthy Retired Pensioners (RP) 2000 Tables published by the Society of Actuaries with generational improvements using Scale MP-2015, from base year 2010, using male rates only for both male and female Participants.

7. Healthy Inactive Participant and Beneficiary Mortality

Rates of mortality for healthy inactive Participants, spouses, and surviving spouses are given by the Combined Healthy Retired Pensioners (RP) 2000 Tables with Blue Collar Adjustments for males and no collar adjustments for females published by the Society of Actuaries with generational improvements using Scale MP-2015, from base year 2010.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX B – SUMMARY OF PROPOSED ASSUMPTIONS

8. Disabled Participant Mortality

Rates of mortality for male disabled members are given by the Retired Pensioners (RP) 2014 Tables for Disabled Annuitants. Rates of mortality for female disabled members are given by Retired Pensioners (RP) 2000 Combined Healthy Table published by the Society of Actuaries.

9. Mortality Improvement

For active and healthy inactive Participants, mortality is assumed to improve in future years in accordance with the MP-2015 generational improvement tables. For disabled Participants no explicit provision for mortality improvement is used.

10. Disability

Among ATU Drivers and IBEW Mechanics, 0.50% of Participants eligible for a disability benefit are assumed to become disabled each year. Disabled Participants are assumed not to return to active service. No disability is assumed for Clerical and Non-Contract Participants.

11. Plan Expenses

Plan administrative expenses of \$260,000 are included in the annual cost calculated, increasing each year with the rate of inflation.

12. Family Composition

100% of active Participants are assumed married. Male spouses are assumed four years older than their wives are.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX B – SUMMARY OF PROPOSED ASSUMPTIONS

13. Service Retirement

Retirement is assumed to occur in accordance with the rates shown in the following table:

Age	ATU Drivers	IBEW Mechanics	Clerical/Non Contract
52 ¹	0%	0%	10%
53-54	0%	0%	10%
55-56	10%	5%	10%
57-59	10%	5%	15%
60-61	15%	10%	15%
62	25%	20%	40%
63-64	25%	20%	30%
65	40%	40%	30%
66-69	30%	30%	30%
70 and older	100%	100%	100%

¹ NonContract retirement assumption at age 52 is for PEPRAs participants only, 0% otherwise.

14. Termination

Service-based or age-based termination rates are shown below by group. For all participants, termination rates are assumed zero once a participant is eligible for retirement.

Termination for ATU Driver, IBEW Mechanic, and Non-Contract Participants is assumed to occur in accordance with the service-based rates shown in the following table:

Service	ATU Driver	IBEW Mechanic	Non- Contract
0	25.0%	25.0%	10.0%
1	25.0%	25.0%	10.0%
2	12.0%	12.0%	10.0%
3	12.0%	12.0%	10.0%
4-9	5.0%	5.0%	10.0%
10 +	2.0%	2.0%	3.0%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
EXPERIENCE STUDY AS OF JUNE 30, 2015**

APPENDIX B – SUMMARY OF PROPOSED ASSUMPTIONS

Termination for Clerical Participants is assumed to occur in accordance with the age-based rates shown in the following table:

Clerical	
Age	Rate
20-24	25.0%
25-29	11.0%
30-34	13.0%
35-39	17.0%
40-44	12.0%
45-49	8.0%
50 and older	5.0%

15. Employment Status

No future transfers among Participant groups are assumed.

Retirement Plans of
San Diego Transit Corporation



Actuarial Experience Study Results

July 1, 2010 through June 30, 2015

April 25, 2016

Anne D. Harper, FSA, EA, MAAA
Robert T. McCrory, FSA, CERA, EA, FCA, MAAA

Topics for Discussion

- Overview
- Cost Impact
- Mortality Assumption
- Economic Assumptions
 - Inflation
 - Expected Rate of Return on Assets
- Other Assumptions
- Appendix



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Overview

- Experience study is performed every 4 - 5 years
- Study covers both demographic and economic assumptions
 - Extensive analysis performed on multiple years of data
 - This presentation captures the most important findings
 - The draft report contains additional information not covered in this presentation
- The assumptions adopted based on this experience study will be used for the 2016 and subsequent actuarial valuations



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Overview

- Key findings and recommendations
 - Mortality in the US has improved faster than expected, people are living longer
 - Our recommended changes to the mortality assumptions have the largest impact on the contribution
 - Future expectations for investment returns are considerably lower
 - We recommend lowering the assumed rate of return on investments from 7.5% to 7.0%, which will increase the contribution
 - The aggregate impact of all other recommended assumptions changes will slightly lower the contribution



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Cost Impact

July 1, 2015 Actuarial Valuation Results		
	Current Assumptions	Proposed Assumptions
Investment Rate of Return	7.50%	7.00%
Inflation	3.00%	2.75%
Actuarial Liability (AL)	\$ 256,750,000	\$ 285,400,000
Actuarial Value of Assets (AVA)	168,570,000	168,570,000
Unfunded Actuarial Liability (UAL)	\$ 88,180,000	\$ 116,830,000
Funded Ratio (AVA/AL)	66%	59%
Normal Cost	\$ 3,470,000	\$ 3,970,000
Assumed Administrative Expenses	250,000	260,000
UAL Payment	7,860,000	10,000,000
Total Contribution, Beginning of Year	\$ 11,580,000	\$ 14,230,000
Total Contribution, Middle of Year	\$ 12,010,000	\$ 14,720,000
Total Contribution, End of Year	\$ 12,440,000	\$ 15,230,000
Change in Contribution (End of Year)		\$ 2,790,000

These calculations are based on the data, methods, assumptions, and plan provisions as outlined in the July 1, 2015 actuarial valuation report. The proposed assumptions can be found in this presentation. The unfunded actuarial liability resulting from the proposed assumption changes is amortized over a closed 22-year period.



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Cost Impact

Impact of Individual Assumption Changes on the Plan Contribution

Change to Base Mortality Table	\$	570,000
Future Mortality Improvements		<u>1,360,000</u>
Total Mortality Assumption Change	\$	1,930,000
Discount Rate/Investment Rate of Return		1,320,000
Inflation		(180,000)
Retirement Rates		(230,000)
Merit Pay Increases		(170,000)
Disability Rates		30,000
Termination Rates		80,000
Administrative Expenses		<u>10,000</u>
Total Contribution Increase	\$	2,790,000



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Mortality Assumption - Overview

Two Step Process:

- 1) Where we are now – Base Mortality Table
- 2) Where are we going – Future mortality improvements



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Mortality Assumption - Overview

1) Develop Base Table

Modify a standard table to fit SDTC experience

- Used SDTC experience from 2005-2015
- Analysis weights the deaths by the monthly benefits
 - SDTC liability is based on monthly benefits
 - Mortality has shown to vary by income level

2) Apply scale for future improvements

- Current approach: make adjustments to provide a margin for improvement in rates
- Recommended approach: apply generational improvements based on year of birth to project mortality rates applicable to each member



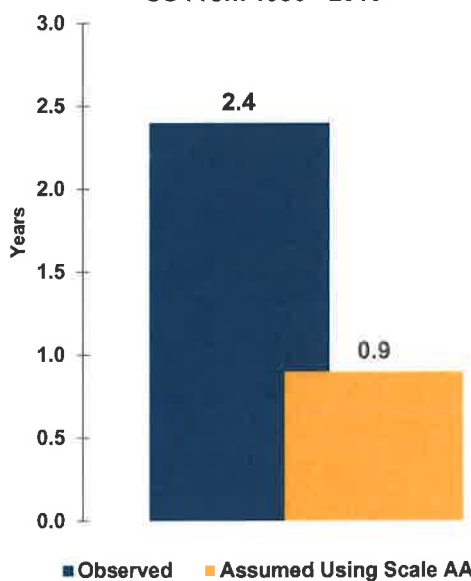
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Future Mortality Improvement

Observed Mortality Improvement vs.
Assumed Mortality Improvement in
US From 1990 - 2010



- Actual mortality improvement in the US has been significantly greater than assumed

Source: IMF Global Financial Stability Report, 2012



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Future Mortality Improvement

- Previous methodology → built margin into mortality rates to account for longer life expectancies
- Professional standards changed such that mortality improvements are required to be applied at each age, for each year in the future
- Generational mortality improvements → different rates for same age, dependent on year
- A person age 65 in 2016 will not live as long as a person who turns age 65 in 2026



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Mortality Assumption

Recommendation

- Update base tables for actives, disabled, and healthy retirees to be in line with the last 10 years of actual SDTC plan experience
- Apply most recent generational mortality improvement scales from the Society of Actuaries to the base tables



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Economic Assumptions

- Expected Rate of Return on Assets / Discount Rate
- Inflation



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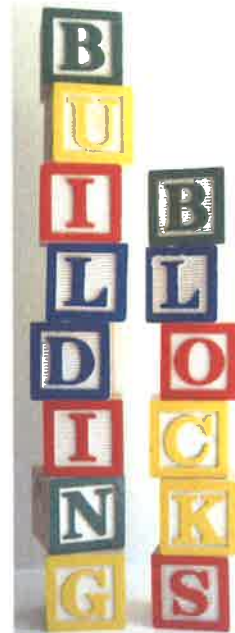
April 25, 2016

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Economic Assumptions - Background

Building block approach

- Inflation is the foundation for all economic assumptions
 - Expected Return (Nominal) = Inflation + Real Return
- Assumptions must be reasonable, both individually AND in aggregate
- Current Assumptions
 - 3.00% Inflation
 - 7.50% Expected Nominal Rate of Return
 - 4.50% Real Rate of Return

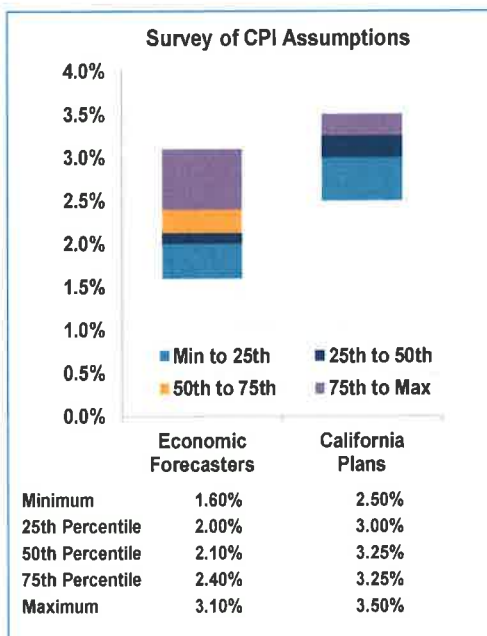


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Inflation



- Distribution of average inflation over the **next 10 years** from professional economic forecasters compared to assumptions used by California public pension plans
- 3.25% is the most common assumption for CA plans
- All of CA plans assumptions are in the top quartile of the economic forecasts



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Inflation

- Markets predict low/moderate inflation (3.0% or lower) over short and long-term
- Recommendation:
 - Reduce inflation assumption from 3.00% to 2.75%
 - Continue to monitor market expectations
- Alternative:
 - Retain current assumption of 3.00% which we believe continues to be reasonable, but a lower assumption would be more in line with economic forecasts



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Expected Rate of Return

- Most powerful single assumption
 - Higher expected return → Lower expected contributions
 - Over time, actual contributions will depend on actual investment returns (not expected)
 - Current discount rate is 7.50%
- Context for selecting the discount rate
 - Historical experience
 - Industry trends
- Primary factors considered in selecting the discount rate
 - Expectations for the future
 - Board's risk preference



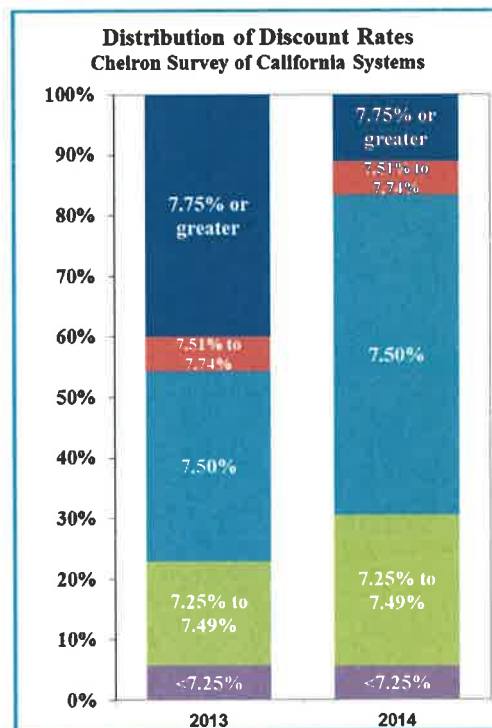
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Expected Rate of Return - California Survey

- Survey covers 36 public retirement systems in California for valuation dates from 6/30/2013 to 1/1/2015
- Minimum = 7.0%
- Median = 7.5%
(used by 19 systems in 2014 compared to 12 in 2013)
- Maximum = 7.75%
(used by 4 systems compared to 14 in prior year)

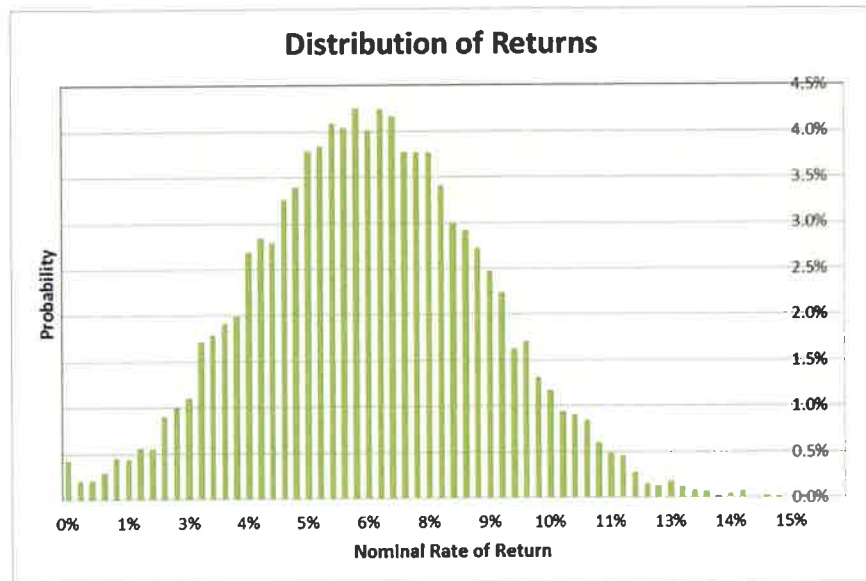


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Expected Rate of Return



Calculation of Expected Return

6.1% average 20-year geometric return

2.4% standard deviation of geometric average over 20 years

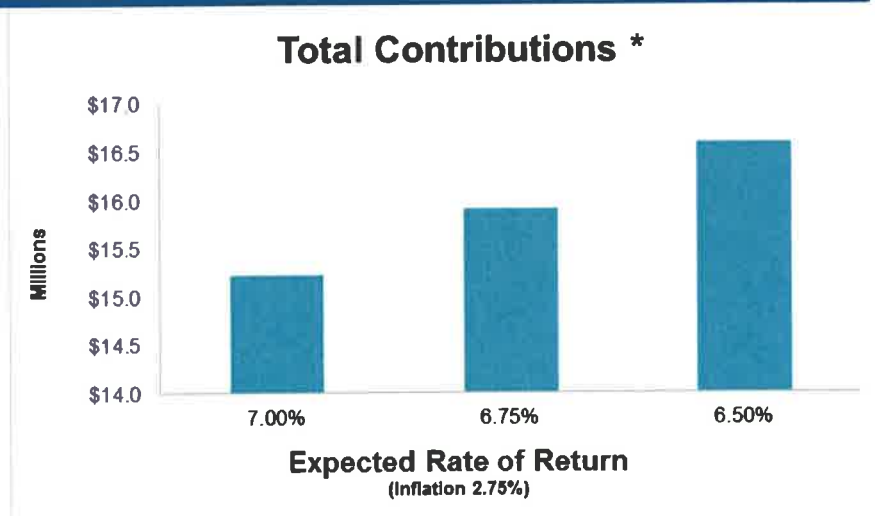


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Expected Rate of Return – Cost Impact



* All proposed demographic assumptions included in Total Contributions

- Approx. \$700,000 increase in cost for every 0.25% reduction in expected rate of return
- Approx. \$200,000 decrease in cost for every 0.25% reduction in the assumed inflation rate



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Economic Assumptions

- **Recommendation**

- Reduce expected rate of return (nominal rate) from 7.50% to 7.00%
- Reduce inflation assumption from 3.00% to 2.75%
 - The real rate of return is reduced from 4.50% to 4.25%
- Continue to monitor and potentially decrease expected rate of return in 0.10%-0.25% annual increments after 2016



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Other Assumptions

Recommendation

- *Retirement* – Minor adjustments for all groups, larger reductions for Clerical/Non-Contract
- *Termination* – Minor adjustments for all groups, except no change for Clerical
- *Disability* – Slight decrease in rates for ATU/IBEW
- *Merit Pay Increases* – Minor adjustments for all groups, except no change for IBEW
- *Administrative Expenses* – Increase from \$250,000 to \$260,000, with annual increases equal to assumed inflation



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SDTC Pension Plan Experience Study Staff Recommendation

That the Budget Development Committee

- adopt the Actuarial Experience Study of the San Diego Transit Corporation's retirement plan;
- approve the revised actuarial assumptions;
- and direct staff to incorporate the revised contribution amount in the FY17 operating budget.



Required Disclosures

The purpose of this presentation is to present the results of the 2015 Actuarial Experience Study of the San Diego Transit Corporation Retirement Plans. This presentation is for the use of the San Diego Transit Corporation (SDTC) and Metropolitan Transit System (MTS) in accordance with applicable law.

In preparing our presentation, we relied on information (some oral and some written) supplied by the SDTC and MTS. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

We hereby certify that, to the best of our knowledge, this presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This presentation was prepared exclusively for the SDTC and MTS and for the purpose described herein. This presentation is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

The proposed actuarial assumptions, data, and methods are those that would be used in the preparation of the actuarial valuation report as of July 1, 2016.

The assumptions reflect our understanding of the likely future experience of the Plans, and the assumptions as a whole represent our best estimate for the future experience of the Plans. The results of this presentation are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the plan could vary from our results.

Robert T. McCrory, FSA, CERA, EA, FCA, MAAA
Principal Consulting Actuary

Anne D. Harper, FSA, EA, MAAA
Consulting Actuary

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Appendix



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Proposed Base Mortality Tables

	Exposures	Actual Deaths	Expected Deaths		Headcount Actual/Expected Ratio		Benefit-Weighted Actual/Expected Ratio	
			Current Assumption	Proposed Assumption	Current	Proposed	Current	Proposed
Actives								
Male	5,672	11	19.7	17.4	56%	63%	61%	69%
Female	1,776	11	4.2	4.5	262%	244%	269%	251%
Total Actives	7,448	22	23.9	21.9	92%	100%	95%	104%
Retired, Surv Spouse								
Male	4,006	106	111.5	104.1	95%	102%	94%	101%
Female	2,052	70	77.7	63.6	90%	110%	79%	99%
Total Retirees	6,058	176	189.2	167.7	93%	105%	90%	101%
Disabled								
Male	618	27	26	24.8	104%	109%	92%	95%
Female	424	3	7.5	5.5	40%	55%	36%	47%
Total Disabled	1,042	30	33.5	30.3	90%	99%	82%	88%
TOTAL	14,548	228	246.6	219.9	92%	104%	91%	101%

The proposed decreases in expected mortality rates are more in line with actual plan experience over the last 10 years.



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Proposed Assumption Changes

Healthy Annuitant Mortality Rates

(Current Rates for ATU/IBEW only)

Mortality Rates at Sample Ages for Male Healthy Annuitants		
Age	Current	Proposed
50	0.21%	0.23%
60	0.67%	0.72%
70	2.22%	2.07%
80	6.44%	5.71%
90	18.34%	16.08%
100	34.46%	33.08%

Mortality Rates at Sample Ages for Female Healthy Annuitants		
Age	Current	Proposed
50	0.19%	0.17%
60	0.58%	0.42%
70	1.86%	1.38%
80	5.08%	4.00%
90	14.46%	12.04%
100	24.48%	22.85%

- Proposed mortality rates for younger male annuitants are actually slightly higher than the current assumptions
- Proposed mortality rates for females and older male annuitants are lower than the current assumptions except at the very latest ages



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Proposed Assumption Changes

Disabled Annuitant Mortality Rates (Current Rates for ATU/IBEW only)

Mortality Rates at Sample Ages for Male Disabled Annuitants		
Age	Current	Proposed
50	0.47%	2.04%
60	1.61%	2.66%
70	4.69%	4.03%
80	13.60%	7.66%
90	29.99%	17.30%
100	40.00%	32.67%

Mortality Rates at Sample Ages for Female Disabled Annuitants		
Age	Current	Proposed
50	0.17%	0.17%
60	0.51%	0.42%
70	1.67%	1.38%
80	4.59%	4.00%
90	13.17%	12.04%
100	23.75%	22.85%

- Proposed mortality rates for younger disabled male members are actually higher than the current assumptions
- Proposed mortality rates for females and older male disabled members are lower than the current assumptions



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Proposed Assumption Changes

Retirement Rates

Retirement Rates at Sample Ages
for ATU Drivers

Age	Current	Proposed
55-59	10%	10%
60-61	15%	15%
62-64	30%	25%
65	40%	40%
66-69	30%	30%
70	100%	100%

Retirement Rates at Sample Ages
for IBEW Mechanics

Age	Current	Proposed
55-58	5%	5%
59	10%	5%
60-61	10%	10%
62-64	30%	20%
65	55%	40%
66-69	30%	30%
70	100%	100%

Retirement Rates at Sample Ages
for Clerical and Non-Contract

Age	Current	Proposed
53-56	15%	10%
57-61	15%	15%
62	60%	40%
63-69	60%	30%
70	100%	100%

Proposed decreases in rates for certain ages for all groups



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Proposed Assumption Changes

Termination Rates

Termination Rates for IBEW Mechanics and ATU Drivers		
Service	Current	Proposed
0-1	25.0%	25.0%
2-3	14.0%	12.0%
4-9	8.0%	5.0%
10+	1.3%	2.0%

Termination Rates for Non-Contract Members		
Service	Current	Proposed
0-3	20%	10%
4-9	10%	10%
10+	3%	3%

Termination Rates for Clerical Members	
Age	Current/Proposed
20-24	25%
25-29	11%
30-34	13%
35-39	17%
40-44	12%
45-49	8%
50-54	5%
55+	0%

Slightly lower rates for IBEW, ATU Drivers, and Non-Contract members with certain years of service. No change for Clerical members.



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Proposed Assumption Changes

Disability Rates for IBEW Mechanics / ATU Drivers

Current	Proposed
0.7%	0.5%

Proposed rate slightly less than current assumption.
No disability is assumed for Clerical and Non-Contract members.



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Proposed Assumption Changes

Merit Pay Increases

Current Assumptions				
Service	ATU Drivers	IBEW Mechanics	Clerical	Non-Contract
0	7.50%	7.50%	11.00%	9.00%
1	7.50%	7.50%	11.00%	9.00%
2	7.50%	7.50%	11.00%	9.00%
3	7.50%	7.50%	0.50%	9.00%
4	7.50%	7.50%	0.50%	9.00%
5	7.50%	7.50%	0.50%	9.00%
6	7.50%	7.50%	0.50%	9.00%
7	7.50%	7.50%	0.50%	9.00%
8	7.50%	7.50%	0.50%	0.25%
9	0.50%	7.50%	0.50%	0.25%
10+	0.50%	0.50%	0.50%	0.25%

Proposed Assumptions				
Service	ATU Drivers	IBEW Mechanics	Clerical	Non-Contract
0	6.00%	7.50%	10.00%	3.50%
1	6.00%	7.50%	10.00%	3.50%
2	6.00%	7.50%	0.25%	3.50%
3	6.00%	7.50%	0.25%	3.50%
4	6.00%	7.50%	0.25%	3.50%
5	6.00%	7.50%	0.25%	3.50%
6	6.00%	7.50%	0.25%	3.50%
7	6.00%	7.50%	0.25%	3.50%
8	0.50%	7.50%	0.25%	3.50%
9	0.50%	7.50%	0.25%	3.50%
10+	0.50%	0.50%	0.25%	0.25%


Proposed decreases for all groups except for IBEW Mechanics



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Cheiron (pronounced kī·ron), the immortal centaur from Greek mythology, broke away from the pack and was educated by the gods. Cheiron became a mentor to classical Greek heroes, then sacrificed his immortality and was awarded in eternity as the constellation Sagittarius.



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Metropolitan Transit System

1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
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Agenda Item No. 4C

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BUDGET DEVELOPMENT COMMITTEE

April 25, 2016

SUBJECT:

PROPOSED FISCAL YEAR 2017 OPERATING BUDGET

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors:

1. Receive a report on the proposed combined MTS fiscal year (FY) 2017 operating budget; and
2. Recommend staff hold a public hearing on May 12, 2016 with the purpose of reviewing the proposed combined MTS FY17 operating budget.

Budget Impact

None at this time.

DISCUSSION:

Fiscal Year 2017 Budget Recap

The following is a recap of the FY17 budget process:

- MTS uses a zero based budgeting process that begins in December each year. In traditional historic budgeting, managers only justify variances versus prior year budget; the assumption is that the baseline is automatically approved. In contrast, using zero-based budgeting, every line item of the budget must be approved each year. In MTS's process, department managers receive personnel and non-personnel budget templates in which they propose amounts for each line item, submitted with the appropriate supporting details for each assumption. Meetings are held with each department to validate their assumptions, review proposals versus existing spending trends, and review any new initiatives. This collaborative process results in the final assumptions that are presented to senior management at MTS, the Budget Development Committee (BDC) and ultimately the MTS Board of Directors (Board).
- In March, staff met with the BDC and MTS Board. Within these two meetings, staff discussed and received approval of the FY16 midyear budget adjustment and the FY17 Capital Improvement Program (CIP).



- In this meeting, staff will review all revenues and expense assumptions for FY17, including a number of finalized assumptions relating to: passenger levels, operating income, subsidy income, personnel assumptions, energy rates and other expense assumptions. Staff will also present a proposed final draft budget for FY17.

Fiscal Year 2017 Operating Budget

The FY17 total budgeted revenue is projected at \$276,149,000, and total projected expenses are budgeted at \$276,149,000 resulting in a balanced budget for FY17.

Fiscal Year 2017 Revenues

Attachment A summarizes the total operating and non-operating revenues in a schedule format. As indicated within the schedule, FY17 combined revenues total \$276.1 million, a decrease from the FY16 amended budget of \$287.8 million (-4.0%).

Operating revenue totals \$115.1 million, a decrease from the FY16 amended budget of \$571,000 (-0.5%). Passenger revenues are increasing by \$129,000 (0.1%) due to a projected increase in Paratransit ridership. Other operating revenues are decreasing by \$700,000, primarily due to a reduction of expected processing fees within Taxicab Administration. Attachment B details the operating revenues by MTS Operator.

Attachment C details the non-operating revenues by funding source. Federal appropriations were authorized under the Fixing America's Surface Transportation Act (FAST Act), which is a fully funded five-year authorization of surface transportation programs through FY 2020. The FAST Act resulted in a net increase of federal revenues for MTS, which primarily impacts the CIP. Federal Transit Administration (FTA) funding is structured on a reimbursement basis (after expenses are incurred), and funds both the CIP and operations. In total, MTS's share of federal revenue is expected to increase by \$3.5 million to \$73.4 million, the overall amount in the operating budget will increase by \$4.0 million.

Regional sales tax receipts are projected to grow by 3.5% year over year for FY16 and by an additional 3.5% in FY17, resulting in additional formula TransNet and Transportation Development Act (TDA) revenues for MTS. Within the operating budget, TransNet and TDA revenues are projected to increase by approximately \$3.1 million in FY17.

In FY16, MTS has received \$6.6 million of State Transit Assistance (STA) funding year to date and projects to receive \$14.5 million in total. The State of California Controller's office projects MTS will receive an additional \$14.5 million for FY17. This funding is primarily programmed in the CIP, but a fixed \$3.6 million will be utilized in the operating budget to continue to fund the service increases put into place during FY13 at the Board's direction. Other State Revenue is projected to decrease by \$200,000 from the FY16 amended budget.

Other local funding is projected to decrease by \$3.9 million from the FY16 amended budget due to the use of federal CNG rebates to offset the decrease in STA Funding in FY16.

Consolidated subsidy revenue totals \$161.1 million, an increase from the FY16 amended budget of \$5.9 million (3.8%).

Within other revenue, other funds decreased \$18.1 million from the FY16 amended budget due to the completion of the Lease-Leaseback transactions during FY16. Reserve revenue totals \$25,000, an increase from the FY16 amended budget of \$1.1 million. These reserve revenues reflect projected changes to the Taxicab Administration and San Diego & Arizona Eastern reserve balances. Taxicab Administration increased reserves by \$1.1 million in the FY16 amended budget, which is the reason for the large change in these figures.

Fiscal Year 2017 Expenses

Attachment E contains the total revenues as detailed above and the total proposed expenses for FY17. Attachment F summarizes the operating expense budgets for each operating division and administrative department. As indicated within these schedules, FY17 combined expenses totaled \$276.1 million, a decrease from the FY16 amended budget of \$8.7 million (-3.1%). Attachment D contains the proposed service levels for FY17, showing a 0.4 percent increase in revenue miles.

Within operating expenses, personnel expenses are projected to increase from the FY16 amended budget by \$6.8 million (5.5%). Attachment H shows the proposed Salary Grade Ranges for FY17, which remain unchanged from the amended FY16 ranges. Attachment I contains the summary position information for FY17, and indicates an overall increase in full-time equivalent employees of 5.5, spread among the Finance, Procurement and Light Rail Vehicle Maintenance departments. In addition to these position increases and general wage inflation, MTS costs are increasing due to health and welfare costs, as well as a large increase in the pension contribution for the self-funded pension plan. The five year experience study was completed for this pension plan, and based on the recommendation of the actuaries, a number of plan assumptions will be updated, resulting in a \$2.8 million increase in the contribution cost.

Outside service expenses are projected to increase from the FY16 amended budget by \$288,000 (1.1%). This increase is due to rising maintenance service agreement costs, as well as additional repairs and maintenance expenses. These increases are partially offset by the non-recurring naming rights payment made in FY16.

Purchased transportation also is projected to increase from the FY16 amended budget by \$2.1 million (3.1%), primarily due to increases in contracted rates.

Materials and supplies costs are projected to increase by \$1.5 million (14.8%), primarily due to maintenance projects within Rail operations.

Attachment G details the energy rate assumptions for FY17. Staff projects rates for CNG, gasoline, diesel, and electricity at \$0.90 per therm, \$2.65 per gallon, \$2.25 per gallon, and \$0.208 per kWh, respectively. These rate levels result in a projected increase in energy cost of \$670,000 (2.4%) from the FY16 amended budget.

Risk management costs are decreasing by \$2.1 million (-34.0%), due to the increased settlement costs budgeted within the amended FY16 budget, which are not expected to recur in FY17.

Debt service costs are projected to decrease from the FY16 amended budget by \$18.2 million, which is also due to the completion of the Lease-Leaseback transactions during FY16.

Adjusting for the increased pension costs and the decrease to Lease-Leaseback debt service costs, expenses are increasing by \$6.4 million or 2.4%.

Handwritten signature of Sharon Cooney in cursive script.

Paul C. Jablonski
Chief Executive Officer

Key Staff Contact: Mike Thompson, 619-557-4557, mike.thompson@sdmts.com

- Attachments:
- A. Operating Revenue Summary
 - B. Operating Revenue
 - C. Non-Operating Revenue
 - D. Operating Statistics
 - E. Operating Budget – Consolidated
 - F. Total Operating Budget
 - G. Energy Impact on Operations
 - H. Salary Grade Ranges
 - I. Position Information (Summary)

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATING BUDGET
REVENUE SUMMARY
FISCAL YEAR 2017

AI No 4c: Attachment A

	ACTUAL FY15	AMENDED BUDGET FY16	PROPOSED BUDGET FY17	\$ CHANGE PROPOSED/ AMENDED	% CHANGE PROPOSED/ AMENDED
Operating Revenue					
Passenger Revenue	\$ 99,114,021	\$ 100,679,972	\$ 100,808,623	\$ 128,650	0.1%
Advertising Revenue	815,944	825,000	750,000	(75,000)	-9.1%
Contract Service Revenue	5,950	0	0	0	-
Other Income	9,576,815	14,134,537	13,509,419	(625,117)	-4.4%
Total Operating Revenue	\$ 109,512,731	\$ 115,639,509	\$ 115,068,042	\$ (571,467)	-0.5%
Subsidy Revenue					
Federal Revenue	\$ 53,520,338	\$ 52,953,321	\$ 56,870,600	\$ 3,917,279	7.4%
Transportation Development Act (TDA)	51,427,792	58,080,789	60,030,082	1,949,293	3.4%
State Transit Assistance (STA)	4,388,019	600,000	3,600,000	3,000,000	500.0%
State Revenue - Other	1,432,636	1,600,000	1,400,000	(200,000)	-12.5%
Transnet	35,051,623	36,330,346	37,481,038	1,150,692	3.2%
Other Local Subsidies	1,062,490	5,574,102	1,674,102	(3,900,000)	-70.0%
Total Subsidy Revenue	\$ 146,882,898	\$ 155,138,558	\$ 161,055,822	\$ 5,917,264	3.8%
Other Revenue					
Other Funds	\$ 101,038,302	\$ 18,108,323	\$ -	\$ (18,108,323)	-100.0%
Reserves Revenue	73,890	(1,111,299)	25,011	1,136,310	-102.3%
Total Other Revenues	\$ 101,112,192	\$ 16,997,024	\$ 25,011	\$ (16,972,013)	-99.9%
GRAND TOTAL REVENUES	\$ 357,507,820	\$ 287,775,091	\$ 276,148,875	\$ (11,626,216)	-4.0%

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATING BUDGET
OPERATING REVENUE
FISCAL YEAR 2017

AI No 4c: Attachment B

	<u>ACTUAL FY15</u>	<u>AMENDED BUDGET FY16</u>	<u>PROPOSED BUDGET FY17</u>	<u>\$ CHANGE PROPOSED/ AMENDED</u>	<u>% CHANGE PROPOSED/ AMENDED</u>
<u>Passenger Revenue</u>					
Internal Bus Operations	\$ 27,156,322	\$ 26,742,066	\$ 26,742,066	\$ -	-
Rail Operations - Base	41,140,175	42,072,048	42,072,048	-	-
MCS - Fixed route	26,880,666	29,292,854	29,292,854	-	-
MCS - Paratransit	2,437,551	2,573,005	2,701,655	128,650	5.0%
Chula Vista Transit	1,499,307	-	-	-	-
Total Passenger Revenue	<u>\$ 99,114,021</u>	<u>\$ 100,679,972</u>	<u>\$ 100,808,623</u>	<u>\$ 128,650</u>	<u>0.1%</u>
<u>Advertising Revenue</u>					
Administration	\$ 815,944	\$ 825,000	\$ 750,000	\$ (75,000)	-9.1%
Total Advertising Revenue	<u>\$ 815,944</u>	<u>\$ 825,000</u>	<u>\$ 750,000</u>	<u>\$ (75,000)</u>	<u>-9.1%</u>
<u>Contract Service Revenue</u>					
Internal Bus Operations	\$ -	\$ -	\$ -	\$ -	-
Total Contract Service Revenue	<u>\$ 5,950</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>-</u>
<u>Other Income</u>					
Internal Bus Operations	\$ 26,512	\$ 5,000	\$ 5,000	\$ -	-
Rail Operations	1,119,506	700,000	700,000	-	-
Administrative	7,270,272	10,762,537	11,279,419	516,883	4.8%
Taxicab	923,858	2,532,000	1,390,000	(1,142,000)	-45.1%
SD&AE	157,765	135,000	135,000	-	-
Total Other Income	<u>\$ 9,576,815</u>	<u>\$ 14,134,537</u>	<u>\$ 13,509,419</u>	<u>\$ (625,117)</u>	<u>-4.4%</u>
TOTAL OPERATING REVENUE	<u>\$ 109,512,731</u>	<u>\$ 115,639,509</u>	<u>\$ 115,068,042</u>	<u>\$ (571,467)</u>	<u>-0.5%</u>

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATING BUDGET
NON OPERATING REVENUE
FISCAL YEAR 2017

	ACTUAL FY15	AMENDED BUDGET FY16	PROPOSED BUDGET FY17	\$ CHANGE PROPOSED/ AMENDED	% CHANGE PROPOSED/ AMENDED
<u>FEDERAL</u>					
FTA 5307 - Planning	\$ 8,789	\$ -	\$ -	\$ -	-
FTA 5307/5309 - Preventative Maintenance	48,568,520	48,000,000	52,000,000	4,000,000	8.3%
FTA 5307 - ADA PM	3,887,480	4,297,667	4,383,600	85,933	2.0%
JARC	298,261	95,000	-	(95,000)	-100.0%
FTA 5311 / 5311(f) - Rural	468,250	560,654	487,000	(73,654)	-13.1%
Total Federal Funds	\$ 53,520,338	\$ 52,953,321	\$ 56,870,600	\$ 3,917,279	7.4%
<u>TRANSPORTATION DEVELOPMENT ACT (TDA)</u>					
TDA - Article 4.0 MTS Area	\$ 46,617,653	\$ 52,787,027	\$ 54,492,403	\$ 1,705,376	3.2%
TDA - Fuel PM	-	-	-	-	-
TDA - Article 4.5 (ADA)	4,320,225	4,545,837	4,782,760	236,923	5.2%
TDA - Article 8.0	489,914	747,925	754,919	6,994	0.9%
Total TDA Funds	\$ 51,427,792	\$ 58,080,789	\$ 60,030,082	\$ 1,949,293	3.4%
<u>STATE TRANSIT ASSISTANCE (STA)</u>					
STA - Formula	4,388,019	600,000	3,600,000	3,000,000	500.0%
Total State Funds	\$ 4,388,019	\$ 600,000	\$ 3,600,000	\$ 3,000,000	500.0%
<u>STATE REVENUE - OTHER</u>					
Caltrans	\$ 20,000	\$ -	\$ -	\$ -	-
MediCal	1,412,636	1,600,000	1,400,000	(200,000)	-12.5%
Total State Funds	\$ 1,432,636	\$ 1,600,000	\$ 1,400,000	\$ (200,000)	-12.5%
<u>TRANSNET</u>					
TransNet - 40% Operating Support	\$ 23,231,327	\$ 24,321,000	\$ 25,369,000	\$ 1,048,000	4.3%
TransNet - Access ADA	762,008	812,000	819,000	7,000	0.9%
TransNet - Superloop	2,546,033	2,260,033	2,288,959	28,926	1.3%
TransNet - BRT	8,512,255	8,937,314	9,004,079	66,765	0.7%
Total TransNet Funds	\$ 35,051,623	\$ 36,330,346	\$ 37,481,038	\$ 1,150,692	3.2%
<u>OTHER LOCAL</u>					
City of San Diego	\$ 459,102	\$ 459,102	\$ 459,102	\$ -	-
SANDAG - Inland Breeze	500,000	1,000,000	1,000,000	-	-
Other - 4S Ranch	-	-	-	-	-
SANDAG - Murphy Canyon	-	-	-	-	-
Other	103,388	215,000	215,000	-	-
CNG Rebates	-	3,900,000	-	(3,900,000)	-100.0%
Other Local Funds	\$ 1,062,490	\$ 5,574,102	\$ 1,674,102	\$ (3,900,000)	-70.0%
<u>LEASE-LEASEBACK / RESERVES</u>					
Lease-Leaseback	\$ 101,038,302	\$ 18,108,323	\$ -	\$ (18,108,323)	-100.0%
Reserve Utilization	73,890	(1,111,299)	25,011	1,136,310	-102.3%
Total Lease-Leaseback / Reserves	\$ 101,112,192	\$ 16,997,024	\$ 25,011	\$ (16,972,013)	-99.9%
TOTAL NON OPERATING REVENUE	\$ 247,995,090	\$ 172,135,582	\$ 161,080,833	\$ (11,054,749)	-6.4%

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATING BUDGET
OPERATING STATISTICS
FISCAL YEAR 2017

AI No 4c: Attachment D

	ACTUAL FY15	AMENDED BUDGET FY16	PROPOSED BUDGET FY17	\$ CHANGE PROPOSED/ AMENDED	% CHANGE PROPOSED/ AMENDED
<u>Revenue Miles</u>					
Internal Bus Operations	9,573,605	9,685,496	9,689,251	3,755	0.0%
Rail Operations - Base	8,591,751	8,488,071	8,488,071	-	0.0%
MCS - Fixed Route	9,627,572	10,322,335	10,303,454	(18,881)	-0.2%
MCS - Paratransit	4,152,658	4,569,283	4,708,525	139,242	3.0%
Chula Vista Transit	610,651	-	-	-	0.0%
Total	32,556,236	33,065,184	33,189,301	124,117	0.4%
<u>Total Miles</u>					
Internal Bus Operations	11,156,778	11,308,616	11,324,668	16,052	0.1%
Rail Operations - Base	8,685,858	8,571,980	8,571,980	-	0.0%
MCS - Fixed Route	11,525,410	12,344,857	12,371,421	26,563	0.2%
MCS - Paratransit	5,621,010	6,159,040	6,355,354	196,314	3.2%
Chula Vista Transit	681,414	-	-	-	0.0%
Total	37,670,470	38,384,493	38,623,423	238,930	0.6%
<u>Revenue Hours</u>					
Internal Bus Operations	807,066	823,358	824,961	1,603	0.2%
Rail Operations - Base	495,212	501,008	501,008	-	0.0%
MCS - Fixed Route	920,753	992,281	992,233	(48)	0.0%
MCS - Paratransit	237,488	253,737	274,353	20,617	8.1%
Chula Vista Transit	58,738	-	-	-	0.0%
Total	2,519,258	2,570,384	2,592,556	22,172	0.9%
<u>Total Hours</u>					
Internal Bus Operations	862,926	879,521	881,383	1,862	0.2%
Rail Operations - Base	508,753	506,496	506,496	-	0.0%
MCS - Fixed Route	981,108	1,060,588	1,065,395	4,807	0.5%
MCS - Paratransit	326,616	354,851	379,536	24,684	7.0%
Chula Vista Transit	62,217	-	-	-	0.0%
Total	2,741,619	2,801,456	2,832,809	31,353	1.1%

**SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATING BUDGET**

AI No 4c: Attachment E

CONSOLIDATED INCOME STATEMENT

FISCAL YEAR 2017

in (\$000s)

	ACTUAL FY15	AMENDED BUDGET FY16	PROPOSED BUDGET FY17	\$ CHANGE PROPOSED/ AMENDED	% CHANGE PROPOSED/ AMENDED
Passenger Revenue	\$ 99,114	\$ 100,680	\$ 100,809	\$ 129	0.1%
Other Revenue	10,399	14,960	14,259	(700)	-4.7%
Total Operating Revenues	\$ 109,513	\$ 115,640	\$ 115,068	\$ (571)	-0.5%
Total Non-Operating Revenue	248,124	172,136	161,081	(11,055)	-6.4%
Total Revenues	\$ 357,637	\$ 287,775	\$ 276,149	\$ (11,626)	-4.0%
Personnel Expenses	118,827	123,130	129,961	6,832	5.5%
Outside Services	21,735	26,066	26,355	288	1.1%
Purchased Transportation	66,212	67,945	70,066	2,121	3.1%
Materials And Supplies	9,964	9,890	11,353	1,464	14.8%
Energy	28,979	28,035	28,705	670	2.4%
Risk Management	4,000	6,117	4,040	(2,077)	-34.0%
General And Administrative	2,072	2,557	2,706	149	5.8%
Vehicle / Facility Lease	1,261	1,249	1,275	26	2.1%
Debt Service	102,931	19,892	1,688	(18,205)	-91.5%
Total Operating Expenses	\$ 355,980	\$ 284,880	\$ 276,149	\$ (8,731)	-3.1%
Total Revenues Less Total Expenses	1,657	2,895	0	(2,895)	-
Net Operating Subsidy	\$ (246,467)	\$ (169,241)	\$ (161,081)	\$ 8,160	4.8%

San Diego Metropolitan Transit System
Operating Budget
Total Operating Expenses
Fiscal Year 2017
(in \$000's)

	AMENDED FY16	Allocation Differences	ADJUSTED FY16	PROPOSED FY17	\$ VARIANCE	Percent Variance
Operations						
Internal Bus Operations	86,984	-	\$ 86,984	\$ 89,011	\$ 2,027	2.3%
Rail Operations	59,309	-	59,309	63,140	3,831	6.5%
Contract Services - Fixed Rou	60,740	-	60,740	61,413	674	1.1%
Contract Services - Paratransi	19,205	-	19,205	20,390	1,185	6.2%
Chula Vista Transit	-	-	-	-	-	0.0%
Coronado Ferry	200	-	200	207	7	3.5%
Administrative Pass Through	344	-	344	344	-	0.0%
Combined Operations	226,782	-	\$ 226,782	\$ 234,506	\$ 7,724	3.4%
Other Operations						
Taxicab Administration	1,249	-	\$ 1,249	\$ 1,243	\$ (6)	-0.4%
San Diego & Arizona Eastern	152	-	152	163	11	7.2%
Combined Other Operations	1,401	-	\$ 1,401	\$ 1,406	\$ 5	0.4%
Administrative						
Board of Directors	61	-	\$ 61	\$ 66	\$ 5	8.2%
BOD Admin	210	-	210	214	4	1.7%
Bus Bench / Bus Shelter	150	-	150	153	3	2.0%
Compass Card	2,503	-	2,503	2,493	(11)	-0.4%
Executive	728	-	728	683	(45)	-6.2%
Finance	1,619	-	1,619	1,593	(26)	-1.6%
Fringes	4,794	-	4,794	5,216	421	8.8%
General	21,295	-	21,295	3,550	(17,745)	-83.3%
Human Resources	1,769	-	1,769	1,817	47	2.7%
Information Technology	4,760	-	4,760	5,974	1,213	25.5%
Land Management	499	-	499	547	49	9.8%
Legal	326	-	326	473	147	45.2%
Marketing	3,098	-	3,098	1,674	(1,424)	-46.0%
Operations Planning	780	-	780	1,006	226	29.0%
Procurement	918	-	918	1,154	236	25.7%
Revenue	-	-	-	-	-	0.0%
Risk	666	-	666	745	79	11.8%
Security	9,824	-	9,824	10,334	510	5.2%
Stores	1,481	-	1,481	1,442	(38)	-2.6%
Telephone Information Service	785	-	785	783	(2)	-0.3%
Transit Store	431	-	431	321	(110)	-25.4%
Combined Administrative	56,697	-	\$ 56,697	\$ 40,237	\$ (16,461)	-29.0%
Combined Grand Total	284,880	-	\$ 284,880	\$ 276,149	\$ (8,731)	-3.1%

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

AI No 4c: Attachment G

Operating Budget**Energy Impact on Operations****Fiscal Year 2017**

	CNG	Gasoline	Diesel	Electricity
Unit of Measure	Therm	Gallon	Gallon	KwH
Proposed Rate	\$ 0.90	\$ 2.65	\$ 2.25	\$ 0.208
Annual Usage	10,540,000	1,510,000	300,000	61,300,000
Cost Impact of \$0.01 Rate Increase	\$ 105,400	\$ 15,100	\$ 3,000	\$ 613,000
Annual Miles	23,200,000	8,700,000	990,000	8,600,000
Average Cost per Mile	\$ 0.41	\$ 0.46	\$ 0.68	\$ 1.48

Historical Rate Trend

	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Amended	FY17 Projected
Diesel	\$ 3.39	\$ 3.53	\$ 3.31	\$ 2.63	\$ 1.72	\$ 2.25
Gasoline	3.53	3.50	3.34	2.77	2.07	2.65
CNG	0.84	0.75	0.89	0.87	0.84	0.90
Electricity	0.158	0.154	0.176	0.195	0.199	0.208

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

AI No 4c: Attachment H

Operating Budget

Proposed Salary Grade Ranges

Fiscal Year 2017

Range	EE Count	Existing			Proposed		
		Minimum	Midpoint	Maximum	Minimum	Midpoint	Maximum
01	11.7	\$ 21,801	\$ 28,183	\$ 34,564	\$ 21,801	\$ 28,183	\$ 34,564
02	7.0	25,071	32,410	39,749	25,071	32,410	39,749
03	6.5	28,832	37,272	45,711	28,832	37,272	45,711
04	5.0	33,157	42,862	52,568	33,157	42,862	52,568
05	31.0	38,130	49,292	60,453	38,130	49,292	60,453
06	44.0	44,003	56,883	69,763	44,003	56,883	69,763
07	31.0	50,383	65,131	79,879	50,383	65,131	79,879
08	102.0	56,557	74,607	92,657	56,557	74,607	92,657
09	35.0	64,759	85,425	106,091	64,759	85,425	106,091
10	36.0	74,148	97,811	121,474	74,148	97,811	121,474
11	10.0	84,899	111,994	139,089	84,899	111,994	139,089
12	14.0	97,209	128,234	159,258	97,209	128,234	159,258
13	3.0	109,164	146,888	184,612	109,164	146,888	184,612
14	3.0	120,081	161,576	203,072	120,081	161,576	203,072
15	4.0	143,304	192,825	242,346	143,304	192,825	242,346
16	1.0	358,760	358,760	358,760	358,760	358,760	358,760

* Adjusted with the FY16 Amended Budget. No adjustment proposed for FY17

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

AI No 4c: Attachment I

Operating Budget

Position Information (Summary Format)

Fiscal Year 2017

	Midyear FY 2016 FTE's	Position Shifts FTE's	Net Requiring Funding FTE's	Proposed FY 2017 FTE's	Frozen Positions FTE's
<u>MTS Administration</u>					
BOD ADMINISTRATION	3.0	0.0	0.0	3.0	0.0
COMPASS CARD	12.0	0.0	0.0	12.0	0.0
EXECUTIVE	3.0	0.0	0.0	3.0	0.0
FINANCE	21.0	-2.0	2.0	21.0	0.0
HUMAN RESOURCES	16.0	0.0	0.0	16.0	0.0
INFORMATION TECHNOLOGY	25.0	2.0	0.0	27.0	0.0
LEGAL	2.0	0.0	0.0	2.0	0.0
MARKETING	9.5	0.0	0.0	9.5	0.0
PLANNING	12.0	-1.0	-0.5	10.5	-1.0
PROCUREMENT	12.0	0.0	2.0	14.0	0.0
RIGHT OF WAY	3.0	0.0	0.0	3.0	0.0
RISK	4.0	0.0	0.0	4.0	0.0
SECURITY	43.0	0.0	0.0	43.0	0.0
STORES (Admin)	2.0	0.0	0.0	2.0	0.0
STORES (BUS)	14.0	0.0	0.0	14.0	0.0
STORES (RAIL)	8.0	0.0	0.0	8.0	0.0
TELEPHONE INFORMATION SERVICES	19.0	0.0	0.0	19.0	0.0
TRANSIT STORES	7.0	0.0	0.0	7.0	0.0
Subtotal MTS Administration	215.5	-1.0	3.5	218.0	-1.0
<u>Bus Operations</u>					
CONTRACT SERVICES	8.5	0.0	0.0	8.5	0.0
EXECUTIVE (BUS)	4.0	0.0	0.0	4.0	0.0
MAINTENANCE	186.0	0.0	0.0	186.0	0.0
MAINTENANCE-FACILITY	5.0	0.0	0.0	5.0	0.0
PASSENGER SERVICES	6.0	1.0	0.0	7.0	0.0
REVENUE (BUS)	12.0	0.0	0.0	12.0	0.0
SAFETY	2.0	0.0	0.0	2.0	0.0
TRAINING	7.5	0.0	0.0	7.5	0.0
TRANSPORTATION (BUS)	596.0	0.0	0.0	596.0	0.0
Subtotal Bus Operations	827.0	1.0	0.0	828.0	0.0
<u>Rail Operations</u>					
EXECUTIVE (RAIL)	7.5	0.0	0.0	7.5	0.0
FACILITIES	68.0	0.0	0.0	68.0	-1.0
LIGHT RAIL VEHICLES	83.0	0.0	2.0	85.0	0.0
MAINTENANCE OF WAYSIDE	38.0	0.0	0.0	38.0	0.0
REVENUE (RAIL)	39.7	0.0	0.0	39.7	0.0
TRACK	18.0	0.0	0.0	18.0	-1.0
TRANSPORTATION (RAIL)	212.3	0.0	0.0	212.3	0.0
Subtotal Rail Operations	466.5	0.0	2.0	468.5	-2.0
<u>Other MTS Operations</u>					
TAXICAB	16.0	0.0	0.0	16.0	0.0
Subtotal Other MTS Operations	16.0	0.0	0.0	16.0	0.0
Grand Total	1,525.0	0.0	5.5	1,530.5	-3.0

Metropolitan Transit System FY 2017 Proposed Operating Budget

MTS Board of Directors
Budget Development Committee
April 25, 2016



Fiscal Year 2017 Operating Budget Budget Development Process

- MTS uses a zero based budgeting process
 - In traditional historic budgeting, managers only justify variances versus prior year budget
 - The assumption is that the baseline is automatically approved
 - By contrast, in zero-based budgeting, every line item of the budget must be approved
- Process starts in December with template distribution
 - Managers propose amounts for each line item
 - Templates submitted include the details behind each assumption
 - Meetings with each department to validate their assumptions
 - Reviewed versus existing spending trends
 - New initiatives are highlighted and discussed
 - Collaborate on final assumptions before presented to Senior Management and the Board



Fiscal Year 2017 Operating Budget Revenue Assumptions - Subsidy

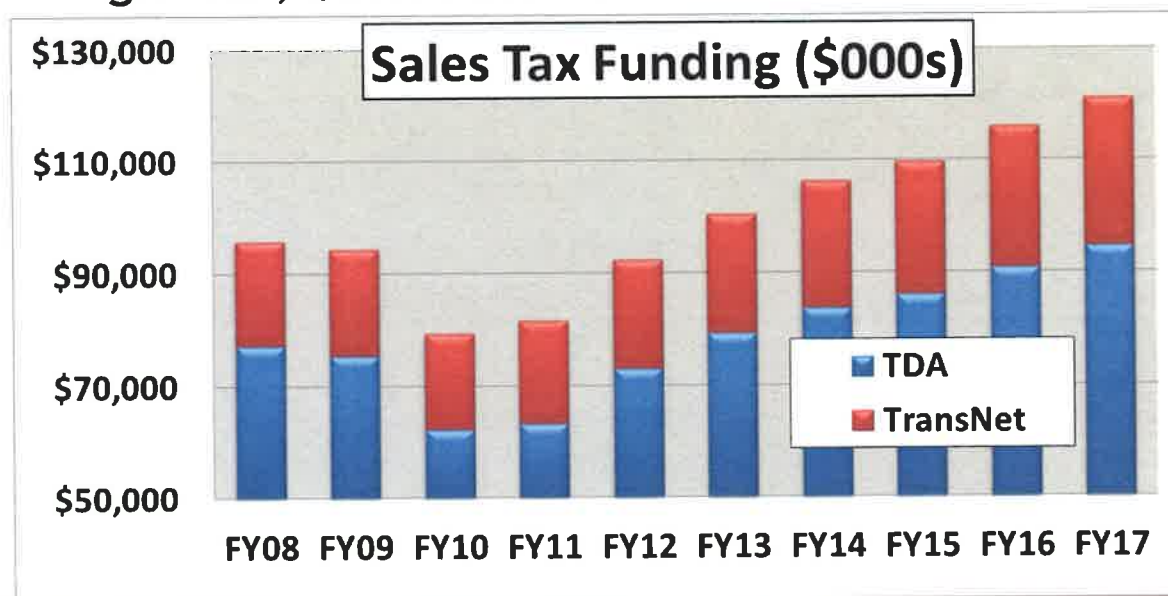
- Federal
 - Surface Transportation Reauthorization
 - Fixing America's Surface Transportation (FAST)
 - Total transit funding increased by \$931M (8.6%)
 - \$2.3B in competitive funding opportunities
 - For MTS, formula funding increased by \$3.5M over FFY16
 - Projected 1.5% increase for FFY17
 - Preventive Maintenance
 - Maximize use of Federal for PM for cash flow
 - Increase in Operating Budget of \$4M
 - Swap with TDA to preserve Capital share



Fiscal Year 2017 Operating Budget

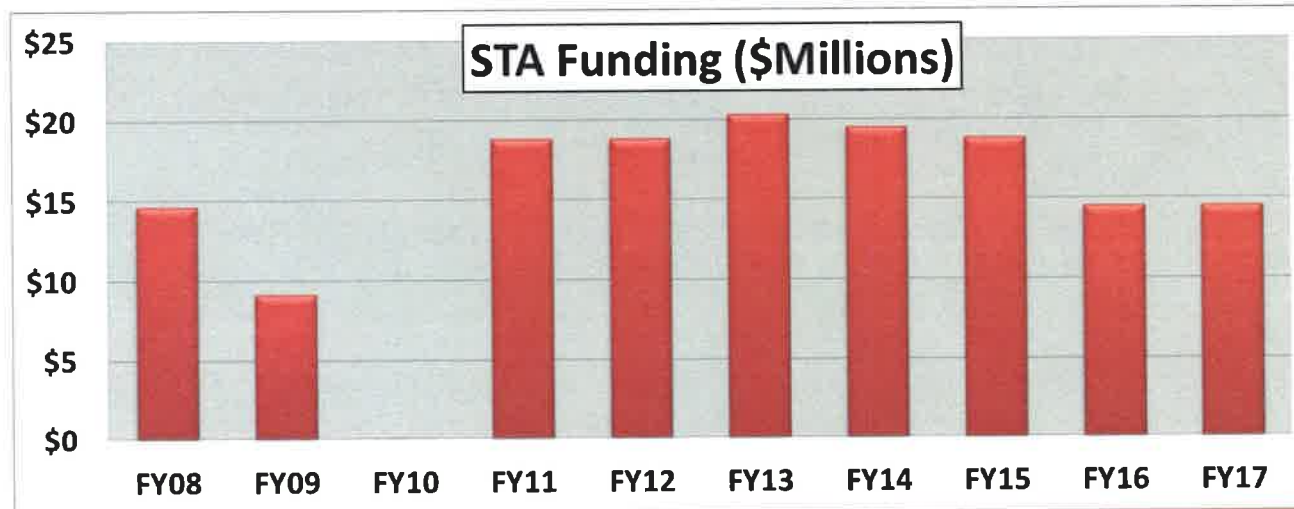
Revenue Assumptions - Subsidy

- TDA and TransNet formula funding projected to grow for the 7th straight year
 - Sales tax generated, projected by SANDAG
 - FY16 projection reduced from 5.0% to 3.5% growth
 - YTD Actual through Q3: 2.5%
 - FY17: 3.5% growth, \$5.0M increase in formula funds



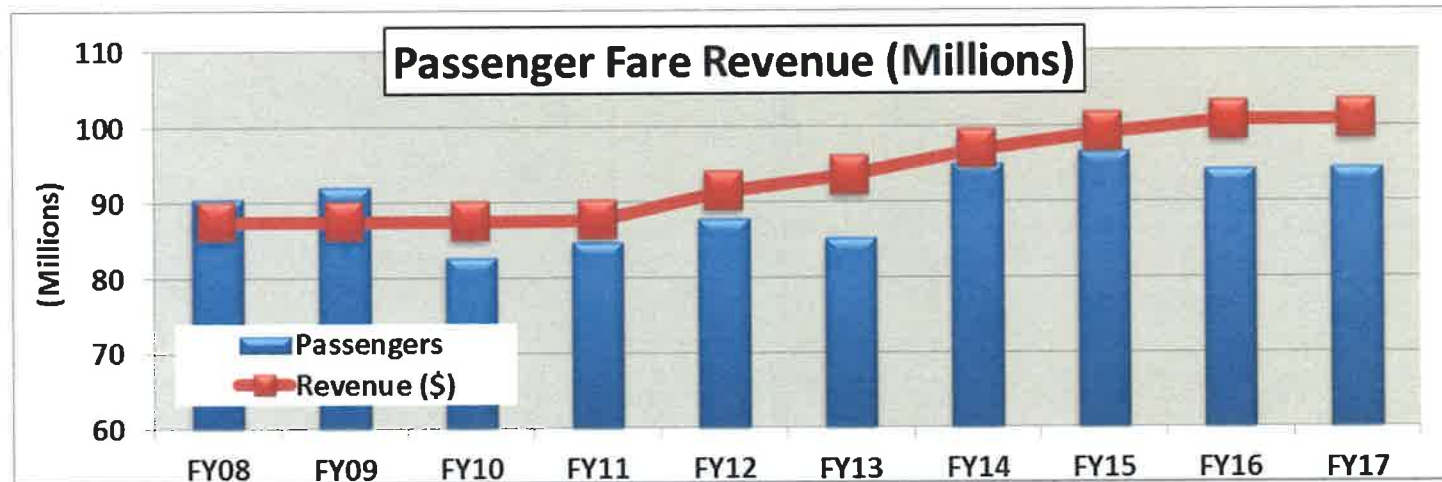
Fiscal Year 2017 Operating Budget Revenue Assumptions - Subsidy

- State Transit Assistance
 - Projected by the State Controller's Office
 - Declining over the last 4 years
 - Include \$3.6M in Operating Budget since FY13 (Sunday service)
 - FY16 Amended Budget cut funding by \$3M
 - \$14.5M - \$13.9M in Capital, \$0.6M in Operations
 - FY17: \$14.5M - \$10.9M in Capital, \$3.6M in Operations



Fiscal Year 2017 Operating Budget Revenue Assumptions - Passenger Levels

- Ridership
 - Adjusted FY16 down with midyear amendment
 - Bus ridership dropping year over year (-6.2%)
 - Trolley ridership growing slightly (2.8%)
 - Currently assuming no growth in passengers for FY17
- Fare Revenue
 - Projecting no change to the fare structure, results in flat revenue



Fiscal Year 2017 Budget Revenue Projection (\$000s)

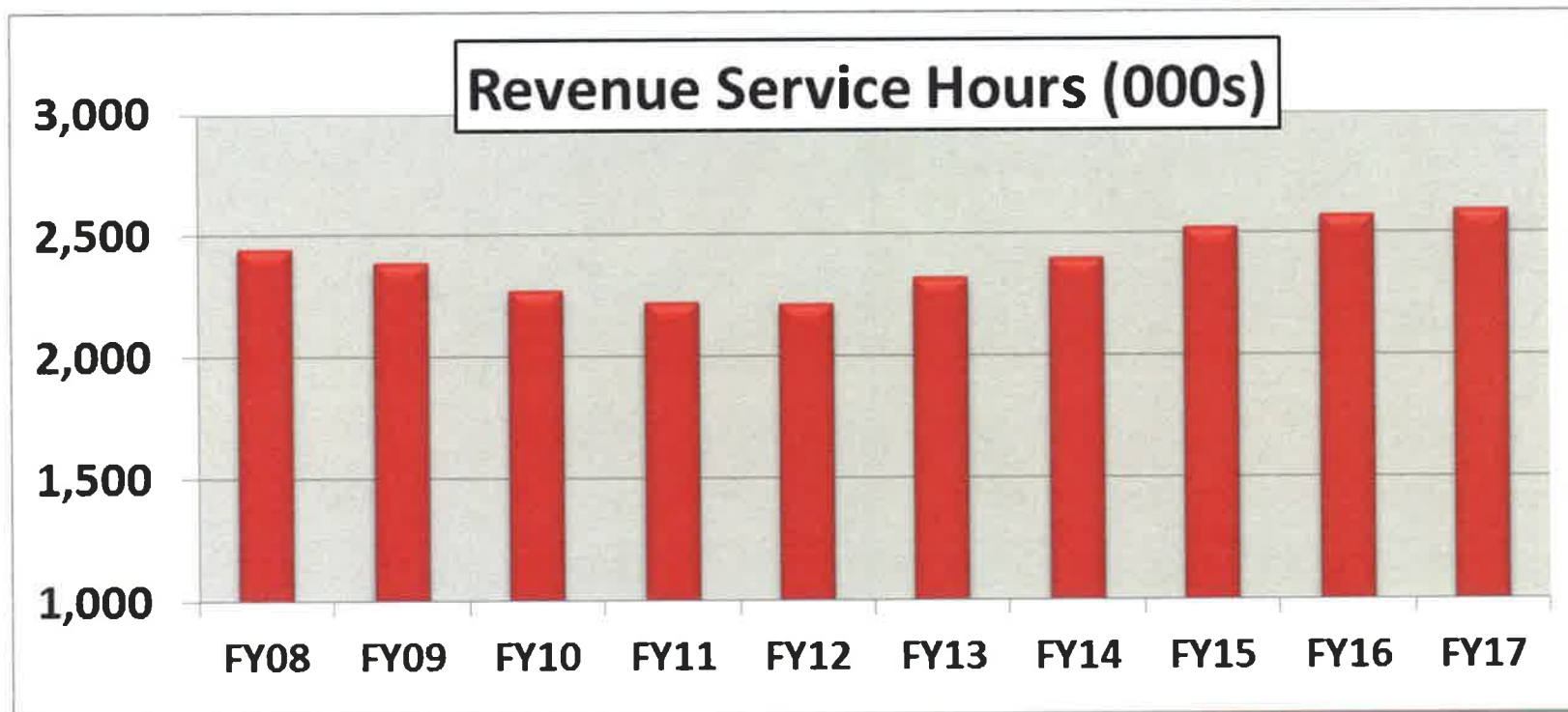
	FY 2016 Amended	FY 2017 Proposed	Var.	Var. %
Passenger Revenue	\$ 100,680	\$ 100,809	\$ 129	0.1%
Other Operating Income	14,960	14,259	(700)	-4.7%
Total Operating Income	\$ 115,640	\$ 115,068	\$ (571)	-0.5%
Federal	52,953	56,871	3,917	7.4%
TDA	58,081	60,030	1,949	3.4%
Transnet	36,330	37,481	1,151	3.2%
STA	600	3,600	3,000	500.0%
Other	7,174	3,074	(4,100)	-57.2%
Total Subsidy	\$ 155,139	\$ 161,056	\$ 5,917	3.8%
Contingency Reserves	(1,111)	25	1,136	-
Total Revenue	\$ 269,667	\$ 276,149	\$ 6,482	2.4%

- Reserves relate to SD&AE and Taxicab Admin self funded activities
- Excludes Lease-Leaseback revenues in FY16 Amended



Fiscal Year 2017 Operating Budget Assumptions - Service Levels

- Stable fixed route service levels
- ADA Paratransit service projected to grow by 8%
 - Averaging 10% growth in revenue hours from FY13 - FY16



Fiscal Year 2017 Operating Budget Expense Assumptions - Personnel

- Personnel costs increasing by \$6.8M (5.5%)
- Wages increasing by \$2.5M (3.3%)
 - Headcount increasing by 5.5 Full Time Equivalents (FTEs)
 - LRV Maintenance increasing by 2 FTEs (Assistant Lineman)
 - Finance increasing by 2 FTEs (Staff Accountant, Accounting Assistant)
 - Procurement increasing by 2 FTEs (Director of Procurement and Stores, Procurement Specialist)
 - Planning is reducing one part-time Ride Checker position
 - Management Employees
 - Merit pool assumed at 3.5%
 - Pension contribution increases from 7% to 8% in January 2017
 - Performance Improvement Program, 1.5% pool, at CEO's discretion
 - Salary grade ranges unchanged (adjusted with FY16 Amendment)



Fiscal Year 2017 Operating Budget

Expense Assumptions - Personnel continued

- Total pension plan costs increasing by \$2.9M (18.4%)
 - Employee pension contributions continue to increase
 - \$5.3M of gross pension costs in FY17 (21.5% of gross costs)
 - San Diego Transit Pension plan net cost increasing by \$2.7M (25%)
 - An experience study is performed every five years
 - Analyzes demographic and economic assumptions to ensure the actuarial valuation is based on sound assumptions
 - Major recommended assumption changes:
 - Adopt new actuary standard and incorporate generational mortality improvements into the plan (\$1.9M impact)
 - » A person that turns 65 in 2026 will live longer than a person that turns 65 in 2016
 - Reduce assumed return on investment from 7.5% to 7.0% (\$1.3M impact)
 - Other actuarial changes reduce contribution by \$460K



Fiscal Year 2017 Operating Budget Expense Assumptions - Personnel continued

- CalPERS pension plan costs increasing by \$208K (4.2%)
 - San Diego Trolley CalPERS plan rate increasing by 5.7%
 - Management CalPERS plans rate increasing by 6.3%
 - Year over year pension cost comparison:

	FY 2016	FY 2017	Var.	Var.
(\$000s)	Amended	Proposed	\$	%
SDTC	\$ 10,800	\$ 13,493	\$ 2,693	24.9%
CalPERS-SDTI	2,193	2,284	91	4.1%
CalPERS-Mgmt	2,720	2,837	117	4.3%
Total	\$ 15,713	\$ 18,614	\$ 2,901	18.5%

- Health and Welfare costs increasing by \$854K (5.8%)
 - Employer rates for bargaining unit employees increasing by 5%
 - Anticipate a 6% increase to insurance rates, typically shared by Employees

Fiscal Year 2017 Operating Budget

Expense Assumptions - Purchased Transportation

- Purchased Transportation increasing by \$2.1M (3.1%)
 - Fixed Route Contract - TransDev (formerly Veolia)
 - Operate South Bay and East County Divisions
 - Base contract expires June 2021, 6 option years
 - ADA Paratransit Contract - First Transit
 - Operates out of the Copley Park Division
 - Base contract expired June 2015, 2nd of 4 option years
 - Service levels growing by 8%, \$1.0M increase in cost
 - Minibus Contract - First Transit
 - Operates out of the Copley Park Division
 - Base contract expires June 2016, 1st of 5 option years

Service	Cost per revenue	Miles/ Hours	FY16 Rate	FY17 Rate	Change
Fixed Route	Mile	9.2M	\$5.11	\$5.23	2.3%
ADA Paratransit	Hour	262K	50.79	52.62	3.6%
Minibus	Hour	95K	38.95	40.07	2.9%



Fiscal Year 2017 Operating Budget Expense Assumptions - Energy

- Electricity Costs - Increasing by \$834K (6.4%)
 - Traction power and facility electric
 - Three components
 - Transmission/demand - SDG&E rates
 - Electricity commodity - Market index rates - Noble Americas is MTS's Direct Access service provider
 - Electricity Usage (Kilowatt hours or kWh)

(Rail only)	FY15 Actual	FY16 Amended	FY17 Proposed	Var.
Rate (per kWh)				
SDG&E	\$ 0.140	\$ 0.150	\$ 0.157	4.2%
Noble	0.052	0.049	0.051	4.4%
Total	\$ 0.192	\$ 0.199	\$ 0.208	4.2%
kWh (000s)	60,900	61,500	61,300	-0.3%
Cost (\$000s)	\$11,672	\$ 12,255	\$ 12,733	3.9%



Fiscal Year 2017 Operating Budget Expense Assumptions - Energy

- **Compressed Natural Gas - Increasing by \$538K (6.7%)**
 - Higher volumes as East County diesel buses are replaced
 - Commodity prices projected to be flat
 - SDG&E Transmission costs continue to grow
 - \$0.10 per therm in 2014 to \$0.26 in April 2016
- **Diesel/Gasoline - Decreasing by \$755K (-12.1%)**
 - Crude oil prices bottomed out in FY16 (down 68% vs FY14)
 - Projecting rates to increase by 30% over the coming year
 - East County diesel volumes will drop substantially

Fuel Type	Unit of Measure	FY15 Actual	FY16 Amended	FY17 Projected	Change	Cost per \$0.01 Increase	Avg. Cost/ Mile
Diesel	Gallon	\$ 2.63	\$ 1.72	\$ 2.25	30.7%	\$ 3,000	\$ 0.68
Gasoline	Gallon	2.77	2.07	2.65	27.8%	15,100	0.46
CNG	Therm	0.87	0.84	0.90	7.1%	105,400	0.41
Electricity	kWh	0.195	0.199	0.208	4.2%	613,000	1.48



Fiscal Year 2017 Operating Budget Expense Assumptions - Continued

- Large number of projects within the FY17 operating budget

Projects List	FY17 Funding
LRV Overhaul Projects - Brakes, Camshafts	\$ 1,100,000
Track - Rail Grinding	350,000
Rail Facilities Projects:	
Building B & Taxi building upgrades	91,000
HVAC component replacement	43,000
LRV paint booth doors replacement	60,000
Rail Revenue - equipment replacement	75,000
Paratransit Facility Projects:	
Asphalt repairs and sealing	110,000
Paint bus wash wall	25,000
Marketing - interactive displays, new outreach campaigns	225,000
Planning - Operational Analysis	250,000
Total	\$ 2,329,000



Fiscal Year 2017 Operating Budget Expense Projection (\$000s)

	FY 2016 Amended	FY 2017 Proposed	Var.	Var. %
Personnel Expenses	\$ 123,130	\$ 129,961	\$(6,832)	-5.5%
Outside Services	94,011	96,421	(2,410)	-2.6%
Materials and Supplies	9,890	11,353	(1,464)	-14.8%
Energy	28,035	28,705	(670)	-2.4%
Risk Management	6,117	4,040	2,077	34.0%
Other	5,589	5,668	(79)	-1.4%
Total Expenses	\$ 266,772	\$ 276,149	\$(9,377)	-3.5%

- Excludes Lease-Leaseback expenses in FY16 Amended
- Adjusting for the increased SDTC Pension contribution, expenses are growing by \$6.4M or 2.4%

Fiscal Year 2017 Operating Budget

Consolidated Revenues less Expenses (\$000s)

	FY 2016 Amended	FY 2017 Proposed	Var.	Var. %
Operating Revenues	\$ 115,640	\$ 115,068	\$ (571)	-0.5%
Subsidy Revenues	155,139	161,056	5,917	3.8%
Reserve Revenues	(1,111)	25	1,136	-
Total Revenues	\$ 269,667	\$ 276,149	\$ 6,482	2.4%
Total Expenses	266,772	276,149	(9,377)	-3.5%
Revenues Less Expenses	\$ 2,895	\$ 0	\$ (2,895)	-

- Excludes Lease-Leaseback revenues and expenses in FY16 Amended
- Negative Reserve Revenue amounts due to contingency reserve balance being increased

Fiscal Year 2017 Operating Budget 5 Year Projection (\$000s)

	FY 2016 Proposed	FY 2017 Projected	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected
Operating Revenues	\$ 115,068	\$ 116,826	\$ 119,114	\$ 121,439	\$ 123,810
Recurring Subsidy Revenues	161,056	163,550	166,108	169,639	173,759
Total Recurring Revenues	\$ 276,124	\$ 280,376	\$ 285,222	\$ 291,078	\$ 297,569
Total Operating Expenses	276,149	281,553	289,719	298,121	306,766
Net Operating Deficit	\$ (25)	\$ (1,177)	\$ (4,497)	\$ (7,043)	\$ (9,197)
Non-recurring Subsidy Revenues	25	-	-	-	-
Total Revenues Less Expenses	\$ 0	\$ (1,177)	\$ (4,497)	\$ (7,043)	\$ (9,197)

Revenue Assumptions:

- Annual operating revenue growth of 1.8%
- TDA\Transnet grows by 2.5-4.0%
- Federal revenue remains flat
- STA revenue remains flat

Expense Assumptions:

- Today's level of service
- Annual expenses growth of 2.7%
- Pension actuary assumptions
- Purchased Transportation rates per contracts
- Energy rates projected using DOE data



Fiscal Year 2017 Operating Budget

On-going concerns

- Economy
 - Sales tax receipts growth is slowing - recession looming?
 - STA revenue
 - Passenger levels
- State and local laws impacting operating expenses
 - Minimum wage laws
 - Zero emission buses
- Energy
 - Rebound of commodity prices
 - SDG&E Rate growth on both Electricity and CNG
- ADA Paratransit service levels continuing to grow
- Trolley capacity constraints
- Pension investment returns



Fiscal Year 2017 Operating Budget Staff Recommendation

That the Budget Development Committee:

1. Receive the report on the proposed combined MTS fiscal year 2017 operating budget; and
2. Forward a recommendation to the Board of Directors to recommend staff hold a public hearing on May 12, 2016 with the purpose of reviewing the proposed combined MTS fiscal year 2017 operating budget.

