



**Metropolitan
Transit
System**

Agenda

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM BUDGET DEVELOPMENT COMMITTEE

October 15, 2021

2:00 p.m.

Meeting will be held via webinar

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Para solicitar la agenda en un formato alternativo o para solicitar acomodaciones de participación, por favor mande un correo a la Secretaria de la Junta, Lucia.Mansour@sdmts.com al menos dos días hábiles antes de la reunión. Dispositivos de ayuda auditiva están disponibles antes de la junta, los cuales se regresarán al final de la junta. Instrucciones para ingresar a la junta virtual están disponibles bajo '[Meeting Link and Webinar Instructions](#).' Use este enlace para acceder la reunión virtual: <https://us02web.zoom.us/j/82907998675>

ACTION RECOMMENDED

- | | | |
|-----------------------------------|--|---------|
| 1. | ROLL CALL | |
| 2. | APPROVAL OF MINUTES - April 26, 2021 | Approve |
| 3. | PUBLIC COMMENTS | |
| COMMITTEE DISCUSSION ITEMS | | |
| 4. | Fiscal Year (FY) 2022 Budget Update/Financial Forecasts (Mike Thompson)
Action would receive a report regarding updated short and medium-term financial forecasts. | Receive |
| 5. | Fiscal Year (FY) 2021 Final Budget Comparison (Gordon Meyer)
Action would receive the MTS operations budget status report for FY 2021 and forward a recommendation to the Board of Directors to approve staff recommendations for programing excess revenues less expenses. | Approve |



6. [San Diego Transit Corporation \(SDTC\) Employee Retirement Plan's \(Plan\) Actuarial Experience Study \(Alice Alsberghe of Cheiron Inc. and Larry Marinesi\)](#) Approve
Action would forward a recommendation to the Board of Directors to: 1) Adopt the Actuarial Experience Study of the SDTC's Employee Retirement Plan; and 2) Approve the revised actuarial assumptions.
7. [San Diego Transit Corporation \(SDTC\) Employee Retirement Plan investments in Environmental, Social, and Governance \(ESG\) Funds \(Jeremy Miller of RVK Inc. and Larry Marinesi\)](#) Approve
Action would forward a recommendation to the SDTC Employee Retirement Plan Investment Committee to: 1) Research quality ESG Impact firms and strategies and identify appropriate fund to include in portfolio; 2) Fully liquidate the Vanguard Energy Index in calendar year 2022 (with estimated proceeds ranging from \$2M - \$3M) and transfer proceeds to newly acquired ESG Impact fund; and 3) Monitor acquired ESG fund performance results for next fiscal year and report back to MTS BDC / Board on results and impact.

OTHER ITEMS

8. NEXT MEETING DATE: To be determined.
9. ADJOURNMENT

DRAFT

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

04/26/2021

MINUTES

1. **ROLL CALL**

Ms. Moreno called the Budget Development Committee (BDC) meeting to order at 11:00am. A roll call sheet listing BDC member attendance is attached.

2. **APPROVAL OF MINUTES**

Ms. Salas moved to approve the minutes of the March 22, 2021 San Diego Metropolitan Transit System (MTS) BDC meeting. Mr. Sandke seconded the motion, and the vote was 5 to 0 in favor.

3. **PUBLIC COMMENTS**

There were no public comments.

4. **Proposed Fiscal Year (FY) 2022 Operating Budget (Mike Thompson)**

Mike Thompson, Director of Financial Planning and Analysis presented a PowerPoint explaining the Revenue Assumptions and Expense Assumptions for FY22.

Mr. Thompson went over the Passenger Levels and Passenger Fare Revenue. He mentioned ridership has been at a baseline of 42% since June 2020 but for the month of March 2021 ridership increased and is currently at 43.8%. Mr. Thompson mentioned that based on the new normal, MTS is projecting a growth of 11.1% in ridership, this includes Mid-Coast and students returning to school in the Fall. He stated based on the new normal for FY22 of 47% baseline on passenger revenue, the forecast is projected at \$49.5M. The projected forecast includes the negative revenue impact of the new fare system launching in August and the ridership growth from Mid-Coast and students. Mr. Thompson added that the baseline for March did have an increase and was at 50%. He stated that a significant increase in ridership and revenue could continue as things continue to recover.

Mr. Thompson went over the Other Operating Revenues, which includes Energy Credits, Advertising, Real Estate and All Other; mentioning the pre-pandemic baseline was \$20.6M, FY21 Amended decreased to \$18.4M and the FY22 Projected Revenue increased to \$21.5M. Mr. Thompson mentioned Energy Credits are increasing by \$2.0M, which is primarily due to the additional Trolley miles, Advertising is increasing by \$0.9M, Real Estate is increasing by \$1.1M and all other is increasing by \$0.1M. Mr. Thompson mentioned the small increase in the All Other Revenue comes from low interest rates and the sale of Compass Cards being much lower than in the past. Overall there is a

projected increase of \$900K from the pre-pandemic baseline, and a projected increase of \$3.1M from the FY21 amended budget. Mr. Thompson reviewed the Revenue Summary for FY22. Total Operating Revenue is increasing by \$6.0M, 9.3%, total Subsidy Revenue is increasing by \$14.2M, 7.5%, and total Revenue is increasing by \$19.8M, 7.8% all compared to the FY21 Amended Budget.

Mr. Thompson went over the final adjustments for the FY22 Operating Budget. He mentioned the total expense reduction from the prior draft is \$2.1M. These reductions come from Fringe Benefit assumptions reduced by \$2.4M, Outside Service costs increased by \$1.0M, Purchased Transportation costs decreased by \$0.9M and Energy costs increased by \$0.5M. Mr. Thompson summarized the FY 22 Operating Budget Expenses. Personnel Expenses are projected to increase by \$2.4M, 1.5%; Purchases Transportation is increasing by \$18.5M, 25%; Outside Services are increasing by \$4.4M, 13.3%; Materials and Supplies is decreasing by \$3.4M, 20.3%; Energy is increasing by \$6.9M, 20.9%, Risk Management is decreasing by \$0.3M, 3.6% and Other Expenses are increasing by \$0.4M, 6.9%. In total, Expenses are growing by \$28.9M, 8.9%. Mr. Thompson mentioned the Proposed FY22 budget will result in a \$80.3M, 12.1% deficit, which will be covered with Coronavirus Aid, Relief, and Economic Security (CARES) Act funds. The projection of the use of the CARES Act in the next 3 years is \$173M, or 78% of \$220M that was apportioned to MTS. MTS is still waiting to receive more information on the American Rescue Plan (ARP) Act, which is estimated to be \$130-140M more in relief funds. Mr. Thompson went over the Reserve Balance. He mentioned that the policy for the contingency reserve is to set the target at 12.5% of the Operating Expense Budget. The FY 22 reserve target balance is \$39.8M, and the reserve balance at the end of FY20 was \$39.3M. Of the \$39.3M balance, \$500K will be used to cover expenses in FY21, leaving a projected balance of \$38.8M.

Mr. Thompson went over the 5-year projection, explaining that Passenger Revenue is projected to get back to baseline by FY26. He mentioned that we are at about 47% of baseline in FY21, with more ridership growth in FY22 and a more dramatic improvement in FY 23 and FY24 as things get back to normal. Federal Revenue is projected to be stable, new legislation is coming at the end of the calendar year but not projecting significant changes at this point. Sales Tax Revenue is at an average of 3.5% growth per year, per the San Diego Association of Governments (SANDAG) latest numbers. No additional service other than Mid-Coast first full year in FY23 is expected. He went over the Expense Assumptions with CPI at 2.5%, 3.0% wage/benefit inflation, purchased transportation rates grow by 5.3%, energy rates are stable and all debt service will be paid in full in mid-FY24, leaving some expense savings after the payoff. Mr. Thompson went over the 5-Year Projection Summary, mentioning FY22 Proposed Recurring Revenues at \$274.8M and Total Operating Expenses at \$355.2M leaving a Deficit of \$80.3M. Deficits for FY23 through FY26 are \$64.7M, \$55.9M, \$50.9M and \$49.7M. Mr. Thompson mention the deficit will be balanced with stimulus funding up until FY26, with structural deficits still forecasted beyond that fiscal year.

Mr. Thompson gave an overview of the major initiatives at MTS, including the participation in the regional solution for homelessness, addressing the structural deficit, the launch of Pronto in August 2021, the launch of Mid-Coast in November 2021, significant capital needs over the next 5 years, and Federal funding legislation reauthorization.

Action Taken

Mr. Sandke moved to forward a recommendation to the MTS Board of Directors to recommend staff hold a public hearing on May 13, 2021 with the purpose of reviewing and approving the proposed combined MTS FY 2022 Operating Budget. Mr. Whitburn seconded the motion, and the vote was 5 to 0 in favor.

5. Fiscal Year (FY) 2022 - 2026 Capital Improvement Program (CIP) (Mike Thompson)

Mr. Thompson gave an overview with a PowerPoint presentation to discuss the proposed FY22 Capital Funding Levels. Mr. Thompson mentioned that for the next 5 years, the total unconstrained needs for projects is \$840M, with the primary need being Trolley and Bus vehicles. He mentioned that the remaining projects are broken down in to two categories: ongoing state of good repair requirements, which makes up \$580M or 69% of the overall need and other Major Initiatives which makes up approximately \$260M.

Mr. Thompson went over the CIP FY22 State of Good Repair (SGR) Projects. Bus and Trolley vehicles are typically the first to be funded, and over the next five years, 387 buses will reach their 12-year life cycle and will need to be replaced with a total cost over the next five year at \$239.8M. Forty-seven (47) Light Rail Vehicles (LRV) will reach their 25-30-year life cycle and will need to be replaced with a total cost over the next 5 years at \$118.0M. The CIP Facility & Construction Projects, which includes maintenance on existing MTS admin buildings, fueling facilities, and Transit Centers, is project to cost \$55.6M over the next five years. Rail Infrastructure (Maintenance of Wayside and Track) is projected to cost over \$117.8M over the next five years. Other Equipment & Installation Projects is budgeted at \$49.0M over the next five years. Mr. Thompson mentioned that the total expense for SGR for all five categories is \$580.2M over the next five years.

Mr. Thompson went over the Major Initiatives including Division 6, modernization projects of Imperial Avenue Division (IAD) and Kearny Mesa Division (KMD), as well as ZEB Infrastructure at South Bay, Imperial Ave., Kearny Mesa and East County Divisions. He also mentioned that the San Ysidro Intermodal Transit Center has been funded for Design in FY22. Service Expansion includes Iris Rapid, which has been funded by the Transit and Intercity Rail Capital Program (TIRCP), and the Southwestern Rapid and El Cajon Transit Center Third Track has also been partially funded by TIRCP. The total expense for Major Initiatives over the next 5 years is \$260.0M.

Mr. Thompson reviewed the CIP costs for the next 5 years. Total available CIP Revenue total \$510.1M with a total Deficit of \$330.1M (60.7% funded).

Julia Tuer, Manager of Government Affairs, went over the Congressional Community Project Request process, mentioning there are two mechanisms to submit project requests for congressional designated spending. The 1st mechanism is Community Project Requests, also known as "earmarks", which is funded through the Federal FY 2022 Appropriations process. Members are limited to submitting ten requests and funding requests to be around the \$1M range. The 2nd mechanism is the Transportation & Infrastructure (T&I) Member-Designated Community Project Requests, which are

funded through the Highway Trust Fund. This process does not limit members to submit a certain number of requests, however, members will be asked to rank their top five requests. Ms. Tuer mentioned the submitted Community Projects Requests include the IAD ZEB Infrastructure and Imperial Avenue Transit Center Expansion, and the submitted T&I Member-Designated Community Project Request includes ZEB Purchases, the South Bay ZEB Infrastructure Rapid 725 (Southwestern BRT), a New Bus Division Facility (Division 6) and the Trolley Yard Expansion Project. Ms. Tuer mentioned they are still in the early stages of the project request cycle.

Action Taken

No Action was taken. Information item only.

Ms. Salas second the motion and the vote was 5 to 0 in favor

6. Next Meeting Date:

To Be Determined

7. Adjournment

Ms. Moreno adjourned the meeting at 12:01pm

Chair of the Budget Development Committee

Clerk of the Budget Development Committee

Attachment: Roll Call Sheet

**BUDGET DEVELOPMENT COMMITTEE
SAN DIEGO METROPOLITAN TRANSIT SYSTEM**

ROLL CALL

MEETING OF (DATE) 04/26/2021

CALL TO ORDER (TIME) 11:00am

RECESS _____

RECONVENE _____

CLOSED SESSION _____

RECONVENE _____

ADJOURN 12:01pm

BOARD MEMBER (Alternate)	PRESENT (TIME ARRIVED)	ABSENT (TIME LEFT)
Moreno <input checked="" type="checkbox"/>	11:00am	12:01pm
FLETCHER <input checked="" type="checkbox"/>	11:00am	12:01pm
SALAS <input checked="" type="checkbox"/>	11:00am	12:01pm
SANDKE <input checked="" type="checkbox"/>	11:00am	12:01pm
Gloria <input type="checkbox"/> Whitburn <input checked="" type="checkbox"/>	11:00am	12:01pm

SIGNED BY THE CLERK OF THE BUDGET DEVELOPMENT COMMITTEE: Lucia Mansour

Digitally signed by Lucia Mansour
DN: cn=Lucia Mansour, o=Finance, ou,
email=Lucia.Mansour@sdmts.com,
c=US
Date: 2021.04.29 12:09:09 -0700

CONFIRMED BY OFFICE OF THE GENERAL COUNSEL: 



**Metropolitan
Transit
System**

Agenda Item No. 4

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BUDGET DEVELOPMENT COMMITTEE**

October 15, 2021

SUBJECT:

FISCAL YEAR (FY) 2022 BUDGET UPDATE / FINANCIAL FORECASTS (MIKE THOMPSON)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Budget Development Committee receive a report regarding updated short and medium-term financial forecasts.

Budget Impact

None at this time.

DISCUSSION:

Staff will review and update key assumptions within the FY 2022 operating budget. Staff will provide updated assumptions on passenger levels, operating revenues, subsidy revenues, and operating expenses to reflect the current environment that has developed over the last five months.

Staff will also provide a financial forecast for both operations and capital over the next five years to provide visibility of pandemic and operational related impacts on MTS financial future.

/s/ Sharon Cooney

Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

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San Diego 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 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. MTS is also the For-Hire Vehicle administrator for nine cities.



Metropolitan Transit System FY 2022 Operating Budget Overview

MTS Board of Directors
Budget Development Committee
October 15, 2021

Fiscal Year 2022 Budget Development Cycle Executive Summary

- Operating Budget
 - Priorities to grow ridership and keep service on the street
 - Significant structural deficit is balanced with Federal Stimulus funding
 - Also some major uncertainties
 - Ridership recovery
 - The impact of Pronto and the fare ordinance changes
 - Mid-Coast trolley extension launch
- Capital Budget
 - Priorities are State of Good Repair and Zero Emission Bus (ZEB) transition
 - \$2B in additional ZEB Fleet costs over 20 years
 - \$840M of project requests over FY22-26, only 61% funded
 - \$330M shortfall in funding levels relative to needs over these five years
 - Aggressive grant and earmark campaigns
 - Most pressing need is additional funding for Division 6 to support ZEB acceleration

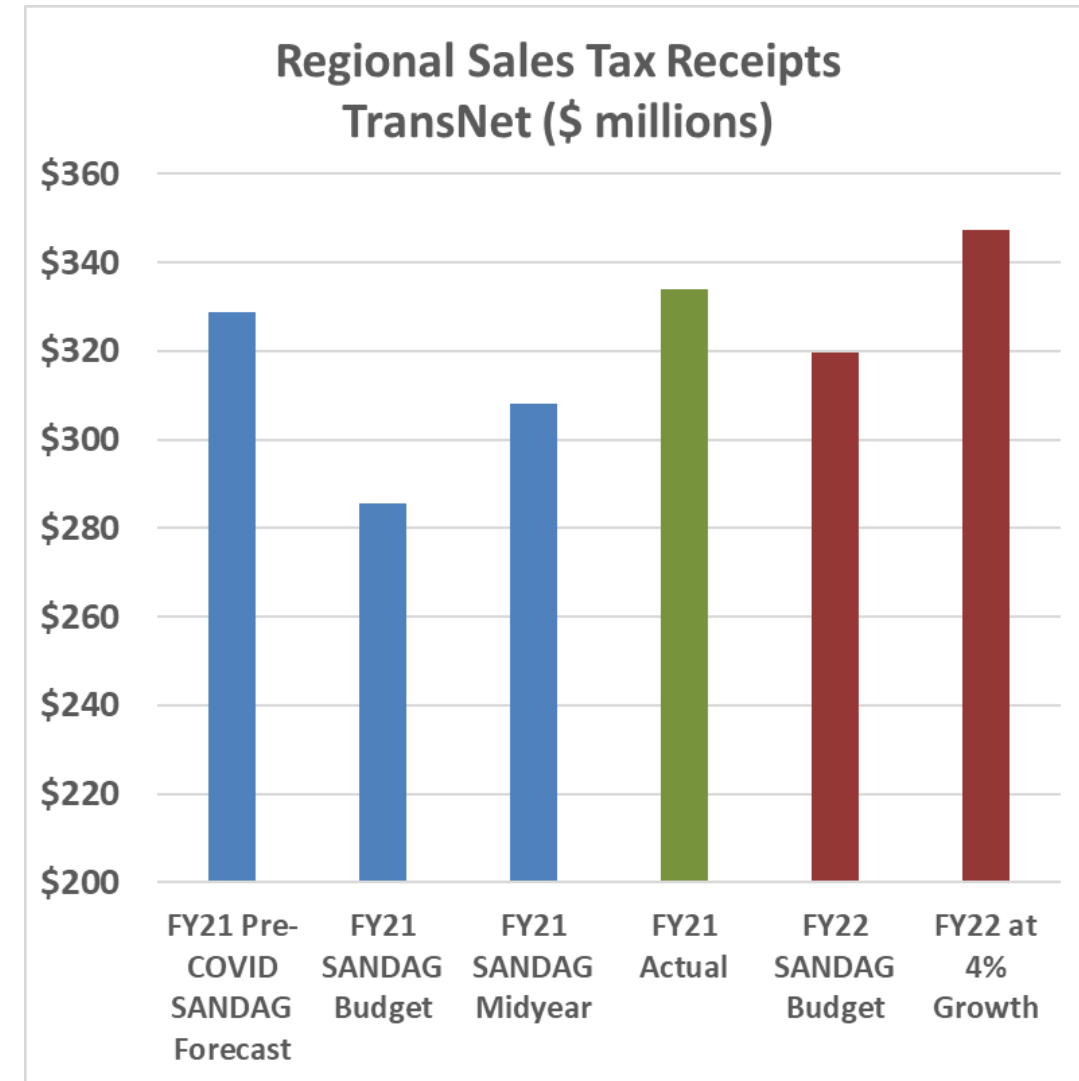
Fiscal Year 2022 Operating Budget Overview

- FY21 Operating Budget
 - Typically expect an equal amount of positive and negative surprises that would offset each other
 - Everything ended up on the positive side
 - \$11.7M of one-time funding for CIP
- FY22 Operating Budget update
 - High level forecast
 - Some of the same trends from FY21 actual results
 - Major revenue and expense updates
 - Update FY22 as well as the five year forecast
 - Keep the current plan in place for the operating budget
 - Focus on the existing priorities
 - Balance deficits with Federal Stimulus funding

Fiscal Year 2022 Operating Budget

Revenue Assumptions - Sales Tax Revenues

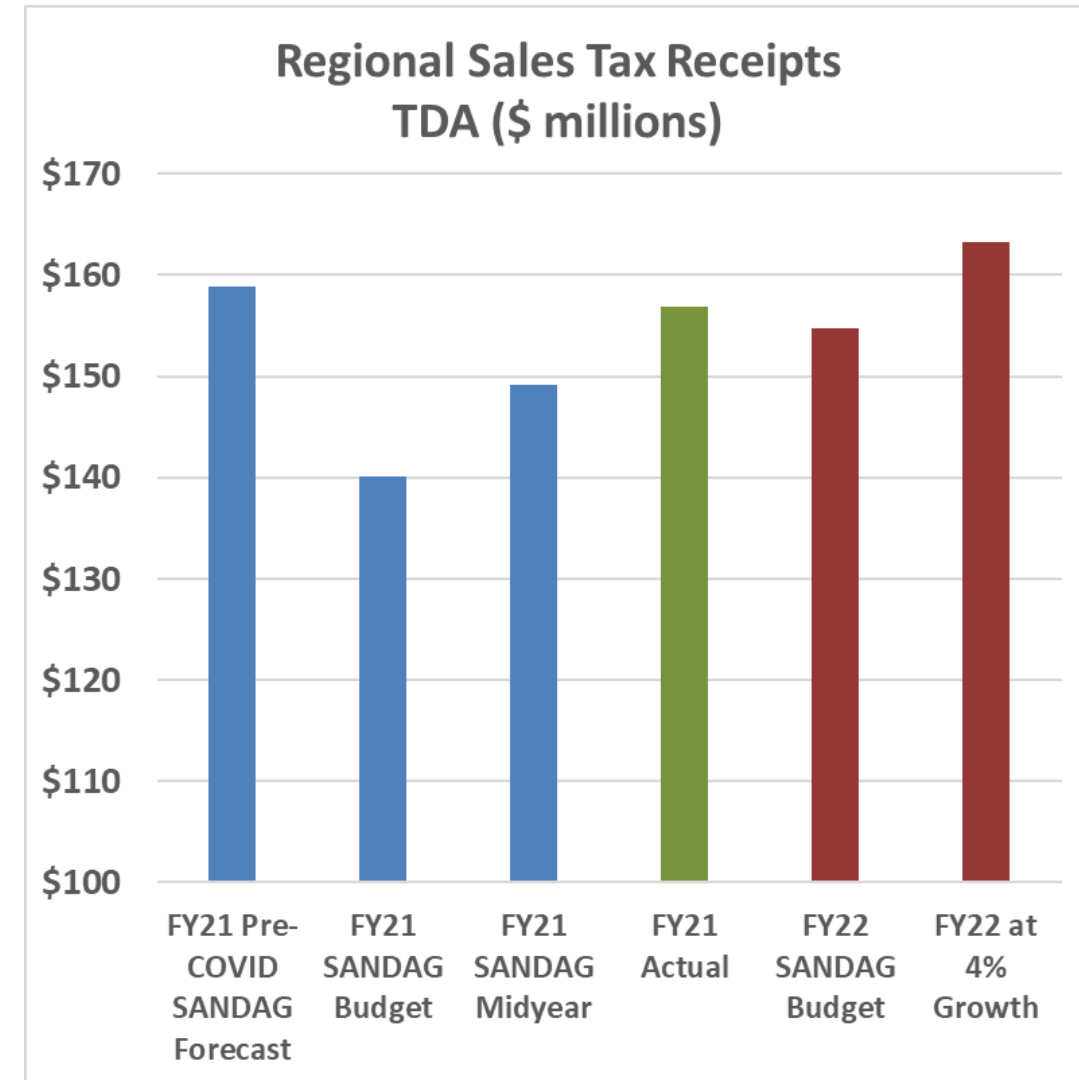
- TransNet formula funding
 - Very strong sales tax results in FY21
 - Better than the original pre-pandemic forecast
 - MTS Share in FY21:
 - Original budget: \$25.9 million
 - Midyear budget: \$28.4 million
 - Actual cash receipts: \$31.1 million
 - FY22 MTS Budget is \$29.7 million
 - **Updated forecast: \$33.4 million, increase of \$3.7 million**
 - Keeps 4% growth forecasted by SANDAG
 - SANDAG to revise targets at Midyear
 - MTS will receive their formula share of actual cash receipts



Fiscal Year 2022 Operating Budget

Revenue Assumptions - Sales Tax Revenues

- Transportation Development Act (TDA)
 - Same FY21 regional cash receipts story
 - Claim process determines MTS revenue
 - MTS submits a claim based on the budget
 - County receives the cash, reserve balances over/under amounts from budget to actual
 - MTS Share in FY21:
 - Original budget: \$91.9 million
 - Midyear budget/actual: \$97.8 million
 - FY22 MTS Budget is \$101.3 million
 - Funding included in both Capital and Operating Budgets
 - 4% growth would be an additional \$5.5M
 - SANDAG to revise targets at Midyear
 - **Not included in forecast at this time**



Fiscal Year 2022 Operating Budget

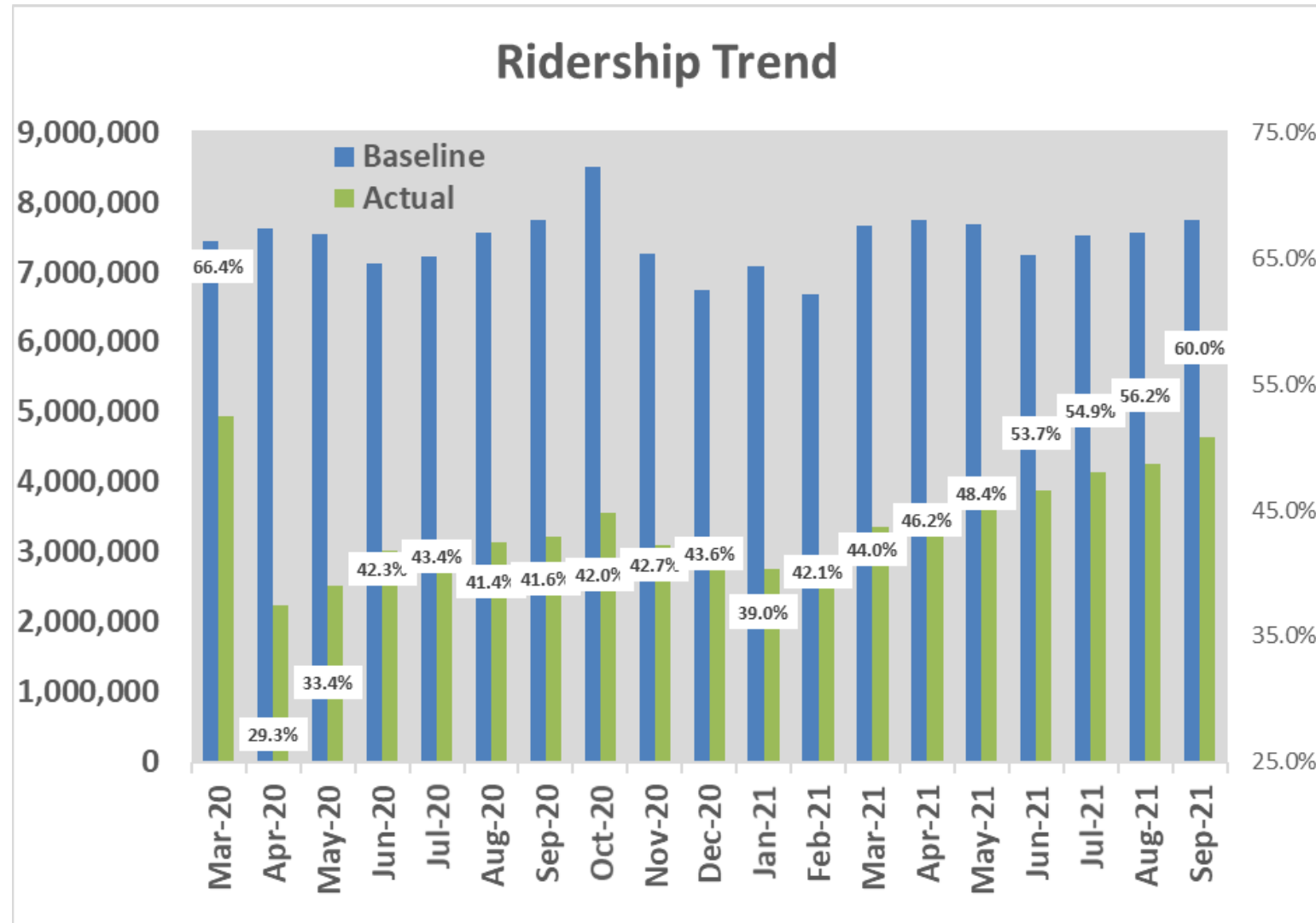
Revenue Assumptions - State Transit Assistance (STA)

- State Transit Assistance (STA)
 - State sales tax on diesel fuel
 - Distributed based on population and agency revenue formulas
 - Two distributions, regular STA and State of Good Repair
 - FY 2022 Budgets based off State Controllers Office January projection of MTS apportionment: \$23.1 million
 - Funding included in both Capital and Operating Budgets
 - **Updated forecast: \$28.2 million, increase of \$5.1 million**
 - August update from the State Controllers Office
 - Represents a \$5.3M increase over prior year, so this projection comes with some risk
 - The actual amount will be determined by the State budget May revise
 - Typically the Capital Budget remains fixed and any variances are reflected in the Operating Budget

Fiscal Year 2022 Operating Budget Revenue Assumptions - Passenger Levels

- Ridership update

- Budget projected growth of 11.1% in FY22 vs FY21
 - 42% of baseline on average
 - + Mid-Coast ridership
 - + Students returning in the Fall
- Consistent month over month growth since budget was set
 - Mar to May steady growth
 - Bump up for re-opening in June
 - Another bump with free ride month in Sept
- Up to 60% of baseline in Sept
- Now projecting 52M passengers, 33% growth



Fiscal Year 2022 Operating Budget Revenue Assumptions - Passenger Revenue

- Passenger Revenue

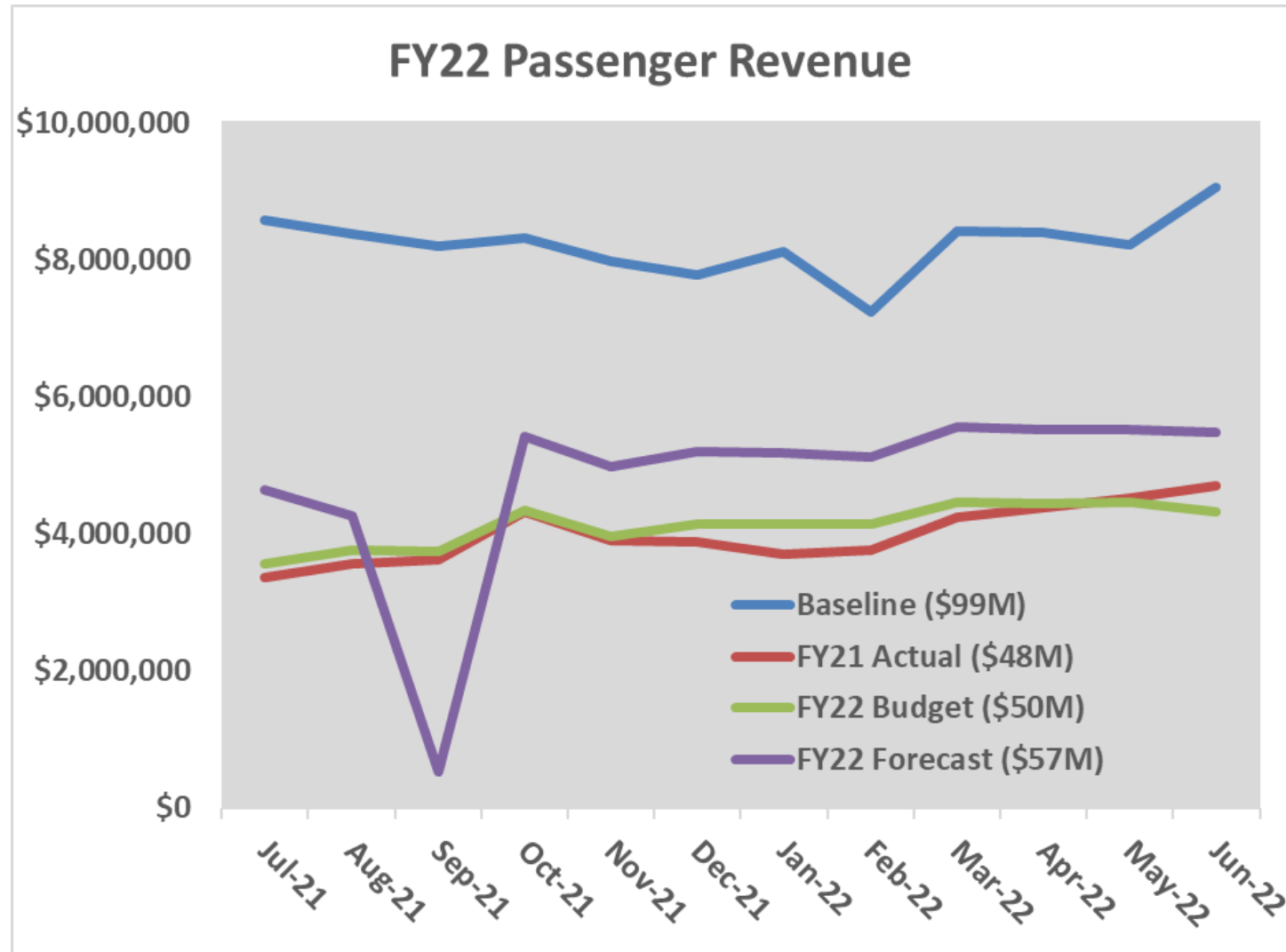
- Budget of \$49.5M

- Ridership growth due to Mid-Coast and students
- Best fare (PRONTO) and ordinance change, 5% revenue loss

- Free ride month was not budgeted

- Updated forecast: \$57.4 million, increase of \$7.9 million

- Updated ridership projection
- Keeping same assumptions for:
 - Mid-Coast ridership
 - PRONTO/Ordinance changes



Fiscal Year 2022 Operating Budget Revenue Summary (\$000s)

	FY 2022 Budget	FY 2022 Forecast	Var.	Var. %
Passenger Revenue	\$ 49,500	\$ 57,365	\$ 7,865	15.9%
Other Operating Revenue	21,513	23,340	1,827	8.5%
Total Operating Revenue	\$ 71,013	\$ 80,705	\$ 9,692	13.6%
Federal	\$ 64,586	\$ 64,586	\$ -	0.0%
TDA	68,805	68,805	-	0.0%
TransNet Formula	29,626	33,326	3,700	12.5%
TransNet Operating	19,992	19,992	-	0.0%
STA	11,300	16,400	5,100	45.1%
Other	9,501	9,501	0	0.0%
Total Subsidy	\$ 203,810	\$ 212,610	\$ 8,800	4.3%
Reserves	\$ 35	\$ 835	\$ 800	-
Total Revenue	\$ 274,857	\$ 294,149	\$ 19,292	7.0%

- Reserves relate to SD&AE and Taxi Admin self funded activities

Fiscal Year 2022 Operating Budget Expense Assumptions - Personnel

- Wages
 - Changes to bus operator and mechanic hours assumptions
 - Expect savings of \$1.8M vs. original budget
- Fringe Benefits
 - Healthcare favorable \$1.1M due to retiree costs, CY22 premiums lower than CY21
 - Unemployment Insurance favorable by \$300K, crackdown on fraudulent claims
 - Fringe benefits in total projected to decrease by \$1.2M
- Cost Recovery
 - Cost recovery expected to be \$648K higher due to changes in Mid-Coast reimbursement assumptions for both trolley operators and security personnel
- Personnel in total projected to decrease by \$3.7M

Fiscal Year 2022 Operating Budget Expense Assumptions - Outside Services

- Purchased Transportation
 - Fixed Route
 - Lower service level assumptions (Premium Express)
 - Less standby hours (lower costs) resulting from operator shortages
 - Decrease of \$1.7M compared to original budget
 - ADA Paratransit
 - Service levels in July/August both 21.0% lower than budget, had assumed steady growth
 - Still projecting growth but lower starting point, would be \$4.1M less than budget
- Other Outside Services
 - Repair/Maintenance services projected to decrease \$308K
 - Favorable Engines/Transmissions experience so far, projecting \$112K favorable
 - Legal expenses continue to be favorable with court backlog
- Outside Services in total projected to decrease by \$6.3M

Fiscal Year 2022 Operating Budget Expense Assumptions - Materials & Supplies

- Materials & Supplies
 - FY21 budget included over \$2M to install protective driver germ shields on the entire fixed route bus fleet
 - Not all installs were completed by end of FY21, portion installed and billed in start of FY22
 - Estimating \$515K increase in materials and supplies costs in FY22 due to germ shields

Fiscal Year 2022 Operating Budget Expense Assumptions - Energy

- Energy Budget
 - Electricity
 - Traction power and facility electric
 - Higher rates on commodity than expected
 - Increase of \$1.4M
 - Compressed Natural Gas
 - Fixed route bus fleet
 - Commodity rates much higher than expected
 - Projecting increase of \$1.1M
 - Gas/Diesel/Propane
 - Paratransit/Minibus/Express buses
 - Propane commodity rates much higher than expected; partially offset by lower paratransit passenger volumes
 - Projecting increase of \$193K
 - Energy projected to increase by total of \$2.7M

Fiscal Year 2022 Operating Budget Expenses Summary (\$000s)

	FY 2022 Budget	FY 2022 Forecast	Var.	Var. %
Personnel Expenses	\$ 158,098	\$ 154,416	\$ (3,683)	-2.3%
Purchased Transportation	92,635	86,867	(5,768)	-6.2%
Outside Services	37,622	37,113	(509)	-1.4%
Materials and Supplies	13,317	13,832	515	3.9%
Energy	39,933	42,598	2,665	6.7%
Risk Management	7,120	7,120	-	0.0%
Other	6,428	6,428	0	0.0%
Total Expenses	\$ 355,153	\$ 348,374	\$ (6,779)	-1.9%

Fiscal Year 2022 Operating Budget Consolidated Revenues less Expenses (\$000s)

	FY 2022 Budget	FY 2022 Forecast	Var.	Var. %
Operating Revenues	\$ 71,013	\$ 80,705	\$ 9,692	13.6%
Subsidy Revenues	203,810	212,610	8,800	4.3%
Total Revenues	\$ 274,822	\$ 293,314	\$ 18,492	6.7%
Total Expenses	355,153	348,374	(6,780)	-1.9%
Net Operating Deficit	\$ (80,331)	\$ (55,059)	\$ 25,272	31.5%
Reserve Revenues	35	835	800	
Revenues Less Expenses	\$ (80,296)	\$ (54,224)		
Federal Stimulus Funding	\$ 80,296	\$ 54,224	\$ (26,072)	

- \$360M in total Stimulus (CARES and ARP) funding
 - Updated projected usage for FY20-22 of \$144M, 40% of total

Fiscal Year 2022 Operating Budget 5 Year Projection (\$000s)

	FY 2020 Actual	FY 2021 Actual	FY 2022 Projected	FY 2023 Projected	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected
Operating Revenues	\$ 101,349	\$ 67,735	\$ 80,705	\$ 99,668	\$ 115,034	\$ 128,866	\$ 131,543
Subsidy Revenues	188,067	193,139	212,610	221,300	226,698	231,942	237,277
Total Recurring Revenues	\$ 289,416	\$ 260,875	\$ 293,315	\$ 320,968	\$ 341,732	\$ 360,808	\$ 368,820
Total Operating Expenses	303,183	316,024	348,374	371,571	384,816	395,458	406,686
Net Operating Deficit	\$ (13,767)	\$ (55,149)	\$ (55,059)	\$ (50,603)	\$ (43,085)	\$ (34,650)	\$ (37,866)
Reserve Revenues	26	(2,997)	835	-	-	-	-
Total Revenues Less Expenses	\$ (13,741)	\$ (58,146)	\$ (54,224)	\$ (50,603)	\$ (43,085)	\$ (34,650)	\$ (37,866)
Federal Stimulus Funding	17,900	72,100	54,224	50,603	43,085	34,650	37,866
Total Operating Income (Deficit)	\$ 4,159	\$ 13,954	\$ 0	\$ -	\$ -	\$ -	\$ -

Comments:

- Passenger revenue recovery continues throughout the 5 year projection
- **Substantial structural deficits (recurring expenses higher than recurring revenues)**
- Stimulus funding (CARES/ARP) will be utilized to balance structural deficits

FY22 CIP - Five Year Summary (\$000s)

	Proposed FY22	Projected FY23	Projected FY24	Projected FY25	Projected FY26	Total FY22-FY26
State of Good Repair	\$ 110,965	\$ 137,328	\$ 140,012	\$ 75,124	\$ 116,783	\$ 580,212
Major Initiatives	27,267	49,031	50,916	62,376	70,401	259,992
Total Project Needs	\$ 138,232	\$ 186,359	\$ 190,928	\$ 137,500	\$ 187,184	\$ 840,205
Available CIP Revenues	\$ 125,486	\$ 101,616	\$ 96,053	\$ 75,803	\$ 111,151	\$ 510,110
Total Deficit	\$ (12,746)	\$ (84,744)	\$ (94,875)	\$ (61,697)	\$ (76,033)	\$ (330,095)
% of Funding / Needs	90.8%	54.5%	50.3%	55.1%	59.4%	60.7%
Accumulated Deficit	\$ (12,746)	\$ (97,489)	\$ (192,365)	\$ (254,062)	\$ (330,095)	

FY22 CIP - Takeaways

- Significant shortfall in funding levels relative to needs

- Organizational Objectives

1. SGR as first priority – keeping system safe, reliable, etc.
2. ZEB Infrastructure at existing bus facilities
3. San Ysidro Intermodal Transit Center
4. **Division 6**
5. ZEB Acceleration (**dependent on Division 6**)
 - Also potential increase in vehicle requirements in excess of existing levels due to range
6. Service expansion (**dependent on Division 6**)

These projects have been fully funded through FY22

Division 6

- \$30M funded through FY21
- No additional funding in FY22

- Division 6 urgency

- Need additional funding to purchase land
 - Any discretionary grant (Infrastructure bill) and earmark campaigns will require land acquisition and environmental work be completed

Fiscal Year 2023 Budget Development Cycle

- Next BDC in Late February
- More information on major initiatives:
 - Ridership recovery
 - Launch of Pronto
 - Launch of Mid-Coast
 - Division 6 status
 - Update on federal funding legislation reauthorization
- FY23 CIP
 - Funding level forecast
 - Updated project needs



**Metropolitan
Transit
System**

Agenda Item No. 5

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BUDGET DEVELOPMENT COMMITTEE**

October 15, 2021

SUBJECT:

FISCAL YEAR (FY) 2021 FINAL BUDGET COMPARISON (GORDON MEYER)

RECOMMENDATION:

That the San Diego Metropolitan System (MTS) Budget Development Committee receive the MTS operations budget status report for FY 2021 and forward recommendation to the Board of Directors to approve staff recommendations for programming excess revenues less expenses.

Budget Impact

Final FY 2021 results show revenues exceeding expenses by \$13,954,000. After reserve related adjustments, there will be \$13,354,000 in excess revenues, which staff recommends be allocated between the following:

- Allocate \$800,000 to fund Board-approved front-line employee appreciation bonuses in FY 2022
- Allocate \$11,726,000 the Capital Improvement Program (CIP) to fund the Division Six facility project
- Allocate \$714,000 to contingency reserve to achieve the 12.5% target for FY 2022

DISCUSSION:

This report summarizes the year-end operating results for FY 2021 compared to the FY 2021 amended budget for MTS. The FY 2021 amended budget includes the projected impacts from the COVID-19 pandemic; therefore, variances are between actuals and the FY 2021 amended budget, inclusive of projected impacts from the pandemic. Attachment A-1 combines the operations', administrations' and other activities' results for FY 2021. Attachment A-2 details the FY 2021 combined operations' results and Attachments A-3 to A-7 present budget comparisons for each MTS operation. Attachment A-8 details budget comparisons for MTS Administration, and Attachment A-9 provides FY 2021 results for MTS's other activities (Taxicab/San Diego and Arizona Eastern Railway Company). Attachment A-10 details subsidy revenue and other non-operating revenue and expenses. Attachment A-11 details MTS's contingency reserve balance.



MTS OPERATING SUBSIDY RESULTS

As indicated within Attachment A-1, for the FY ending June 2021, MTS's net-operating income favorable variance totaled \$12,943,000 (5.0%). The favorable budget results were primarily due to favorable experience in passenger revenue, other operating revenue, personnel expenses, and outside services expenses.

Non-operating net subsidy for FY 2021 was favorable to budget by \$1,012,000 (0.4%), primarily due to favorable Transnet revenue resulting from higher than projected state sales tax receipts.

In total, revenues exceeded expenses by \$13,954,000 for FY 2021.

MTS COMBINED RESULTS

Operating Revenues. Total combined operating revenues for FY 2021 were \$67,735,000 compared to the budget of \$64,985,000, representing a \$2,750,000 (4.2%) favorable variance. Passenger revenue had a favorable variance of \$1,310,000 (2.8%). Passenger revenue for the year ended at 49% of pre-pandemic baseline passenger revenue versus the budget of 47%. Other operating revenue was favorable by \$1,440,000 (7.8%), primarily due to favorable auction proceeds from the sale of capital assets, favorable lease income, and favorable regulatory fee income within the For-Hire Vehicle (FHV) Administration.

Operating Expenses. Total combined expenses for FY 2021 were \$315,546,000 compared to the budget of \$325,739,000 resulting in a \$10,193,000 (3.1%) favorable variance.

Personnel Costs. Personnel-related costs totaled \$150,915,000, compared to a budgetary figure of \$155,751,000, producing a favorable variance of \$4,837,000 (3.1%). This was primarily due to favorable bus operator wages, favorable health and welfare expenses due to large one-time credits from a prior vendor, favorable unemployment insurance, and favorable cost recovery.

Outside Services and Purchased Transportation. Total outside services for the fiscal year totaled \$103,830,000 compared to a budget of \$107,326,000, resulting in a favorable variance of \$3,496,000 (3.3%). This was primarily due to favorable contracted security costs, favorable repair and maintenance costs within rail operations, favorable Information Technology expenses, as well as favorable purchased transportation costs for both fixed route and paratransit operations.

Materials and Supplies. Total materials and supplies expenses were \$15,980,000, compared to a budgetary figure of \$16,718,000, resulting in a favorable variance of \$738,000 (4.4%). This was primarily due to favorable revenue vehicle parts within bus operations. The FY 2021 amended budget included over \$2 million for installing driver protective germ barriers for the entire fixed route bus fleet. Some of the installations carried over into FY 2022, resulting in less expenses and a favorable variance in FY 2021.

Energy. Total energy costs were \$32,389,000, compared to the budget of \$33,032,000, resulting in a favorable variance of \$643,000 (1.9%). This was primarily due to favorable traction power electricity and compressed natural gas (CNG) expenses.

Risk Management. Total expenses for risk management were \$7,031,000 compared to the

budget of \$7,382,000, resulting in a favorable variance totaling \$351,000 (4.8%). This was primarily due to favorable liability claim payouts and recoveries within rail operations as well as favorable risk-related legal expenses.

General and Administrative. Total general and administrative costs were \$4,100,000 for FY 2021, compared to a budget of \$4,200,000, resulting in a favorable variance of \$101,000 (2.4%). This was primarily due to favorable travel and meetings, credit card fees, and general supplies costs.

Vehicle and Facility Leases. The vehicle and facilities leases costs were \$1,302,000 compared to the budget of \$1,330,000, resulting in a \$28,000 (2.1%) favorable variance.

Subsidy Revenue and Other Non-Operating Revenue and Expenses

Attachment A-10 details subsidy revenue and other non-operating revenue and expenses. Subsidy and non-operating revenues for FY 2021 were \$261,765,000 compared to the fiscal year budget of \$260,754,000, representing a favorable variance of \$1,012,000 (0.4%). The drivers of this favorable variance included the following:

- Recurring Federal revenues were favorable \$427,000 as a result of receiving supplemental Section 5311 and 5311(f) rural funding allocations authorized under the Coronavirus Aid, Relief, and Economic Security (CARES) Act.
- On March 27, 2020, the President signed the CARES Act, which provided \$25 billion to the transit industry nationwide. MTS will receive \$220 million in CARES Act funding across multiple fiscal years. The FY 2021 amended budget included \$74,144,000 in CARES Act funding based on projected deficits; however, MTS only utilized \$72,100,000 of CARES Act funding in FY 2021 due to lower than projected deficits.
- State Transit Assistance (STA) revenue was favorable \$778,000 to the amended budget.
- Transnet revenues were \$2,292,000 favorable to the amended budget. This was primarily due to strong regional sales tax receipts in FY 2021.
- Other Non-Operating Income was unfavorable \$494,000. This was due to favorable budgetary results within the FHV Administration and the San Diego and Arizona Eastern (SD&AE) division. Both of these entities are self-funded and their operations must be funded by operating revenues generated by their own operating activities. Both entities have reserve accounts for excess revenue and the favorable variance in FY 2021 is due to favorable contributions to these reserve accounts in FY 2021.

Net Revenues Less Expenses

For FY 2021, MTS had an excess of revenues over expenses totaling \$13,954,000. After reserve adjustments for interest and one-time adjustments included in the FY 2021 operating budget, there is \$13,354,000 in excess revenues over expenses. Staff recommends the following actions to program excess revenues:

- Allocate \$800,000 to fund Board-approved front-line employee appreciation bonuses in FY 2022
- Allocate \$11,726,000 the Capital Improvement Program (CIP) to fund the Division Six facility project
- Allocate \$714,000 to contingency reserve to achieve the 12.5% target for FY 2022

With the inclusion of one-time CARES Act funding of \$72.1 million to supplement the operating budget in FY 2021, the net MTS structural deficit for FY 2021 was \$58.1M.

Reserves

Attachment A-11 details MTS's contingency reserve. The contingency reserve target is 12.5% of the operating budget. The ending reserve balance on June 30, 2020, was \$39,259,000. In order to achieve the 12.5% target for FY 2022, MTS must make a net contribution of \$114,000 to the contingency reserve after accounting for all FY 2021 reserve activity. The recommended allocation of the \$13,354,000 in excess revenues over expenses from the section above results in a net contribution of \$114,000 to the contingency reserve in FY 2021, and thus achieves the 12.5% contingency reserve target for FY 2022.

MTS has other designated reserves, of which the balances for each are listed on Attachment A-12.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Comparison to Budget

MTS
CONSOLIDATED

COMPARISON TO BUDGET - FISCAL YEAR 2021

JUNE 30, 2021

(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	\$ 47,913	\$ 46,604	\$ 1,310	2.8%
Other Revenue	19,822	18,382	1,440	7.8%
Total Operating Revenue	\$ 67,735	\$ 64,985	\$ 2,750	4.2%
Personnel costs	\$ 150,915	\$ 155,751	\$ 4,837	3.1%
Outside services	103,830	107,326	3,496	3.3%
Materials and supplies	15,980	16,718	738	4.4%
Energy	32,389	33,032	643	1.9%
Risk management	7,031	7,382	351	4.8%
General & administrative	4,100	4,200	101	2.4%
Vehicle/facility leases	1,302	1,330	28	2.1%
Administrative Allocation	0	(0)	(0)	0.0%
Total Operating Expenses	\$ 315,546	\$ 325,739	\$ 10,193	3.1%
Operating Income (Loss)	\$ (247,811)	\$ (260,754)	\$ 12,943	5.0%
Total Non-Operating Activities	261,765	260,754	1,012	0.4%
Income (Loss) before Capital Contributions	\$ 13,954	\$ 0	\$ 13,954	525431492.3%

**OPERATIONS
CONSOLIDATED**

COMPARISON TO BUDGET - FISCAL YEAR 2021

JUNE 30, 2021

(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	\$ 47,913	\$ 46,604	\$ 1,310	2.8%
Other Revenue	833	286	547	191.3%
Total Operating Revenue	\$ 48,747	\$ 46,890	\$ 1,857	4.0%
Personnel costs	\$ 129,155	\$ 132,937	\$ 3,781	2.8%
Outside services	87,689	89,228	1,539	1.7%
Materials and supplies	15,978	16,676	699	4.2%
Energy	31,524	32,096	572	1.8%
Risk management	3,832	4,137	305	7.4%
General & administrative	886	951	65	6.8%
Vehicle/facility leases	1,085	1,075	(10)	-0.9%
Administrative Allocation	27,339	27,339	0	0.0%
Total Operating Expenses	\$ 297,488	\$ 304,438	\$ 6,949	2.3%
Operating Income (Loss)	\$ (248,742)	\$ (257,548)	\$ 8,806	3.4%
Total Non-Operating Activities	246,052	257,548	(11,496)	-4.5%
Income (Loss) before Capital Contributions	\$ (2,690)	\$ 0	\$ (2,690)	-135983249.9%

OPERATIONS
BUS - DIRECTLY OPERATED (SAN DIEGO TRANSIT CORP.)
COMPARISON TO BUDGET - FISCAL YEAR 2021
JUNE 30, 2021
(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	\$ 14,430	\$ 14,107	\$ 323	2.3%
Other Revenue	244	3	241	7761.0%
Total Operating Revenue	\$ 14,674	\$ 14,110	\$ 564	4.0%
Personnel costs	\$ 87,376	\$ 89,842	\$ 2,466	2.7%
Outside services	1,787	2,033	245	12.1%
Materials and supplies	7,980	8,128	147	1.8%
Energy	6,435	6,643	208	3.1%
Risk management	1,774	1,807	33	1.8%
General & administrative	430	436	6	1.3%
Vehicle/facility leases	366	378	12	3.2%
Administrative Allocation	7,649	7,649	0	0.0%
Total Operating Expenses	\$ 113,798	\$ 116,916	\$ 3,118	2.7%
Operating Income (Loss)	\$ (99,124)	\$ (102,806)	\$ 3,682	3.6%
Total Non-Operating Activities	96,434	102,806	(6,372)	-6.2%
Income (Loss) before Capital Contributions	\$ (2,690)	\$ 0	\$ (2,690)	-127747248.6%

OPERATIONS
RAIL (SAN DIEGO TROLLEY INC.)
COMPARISON TO BUDGET - FISCAL YEAR 2021
JUNE 30, 2021
(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	\$ 19,338	\$ 18,778	\$ 560	3.0%
Other Revenue	590	283	307	108.3%
Total Operating Revenue	\$ 19,927	\$ 19,061	\$ 867	4.5%
Personnel costs	\$ 40,896	\$ 42,193	\$ 1,298	3.1%
Outside services	7,591	8,254	663	8.0%
Materials and supplies	6,899	7,115	216	3.0%
Energy	17,692	18,016	324	1.8%
Risk management	2,051	2,314	264	11.4%
General & administrative	449	498	50	10.0%
Vehicle/facility leases	359	357	(2)	-0.5%
Administrative Allocation	17,451	17,451	(0)	0.0%
Total Operating Expenses	\$ 93,386	\$ 96,199	\$ 2,813	2.9%
Operating Income (Loss)	\$ (73,459)	\$ (77,138)	\$ 3,679	4.8%
Total Non-Operating Activities	73,459	77,138	(3,679)	-4.8%
Income (Loss) before Capital Contributions	\$ 0	\$ 0	\$ 0	513.0%

OPERATIONS
BUS - CONTRACTED SERVICES (FIXED ROUTE)
COMPARISON TO BUDGET - FISCAL YEAR 2021
JUNE 30, 2021
(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	\$ 13,684	\$ 13,269	\$ 415	3.1%
Other Revenue	-	-	-	-
Total Operating Revenue	\$ 13,684	\$ 13,269	\$ 415	3.1%
Personnel costs	\$ 719	\$ 645	\$ (74)	-11.5%
Outside services	68,587	68,989	402	0.6%
Materials and supplies	1,080	1,419	339	23.9%
Energy	6,934	6,993	58	0.8%
Risk management	-	-	-	-
General & administrative	3	6	2	43.3%
Vehicle/facility leases	51	60	9	14.4%
Administrative Allocation	2,033	2,033	0	0.0%
Total Operating Expenses	\$ 79,407	\$ 80,144	\$ 737	0.9%
Operating Income (Loss)	\$ (65,723)	\$ (66,875)	\$ 1,152	1.7%
Total Non-Operating Activities	65,723	66,875	(1,152)	-1.7%
Income (Loss) before Capital Contributions	\$ -	\$ (0)	\$ 0	-

OPERATIONS
BUS - CONTRACTED SERVICES (PARATRANSIT)
COMPARISON TO BUDGET - FISCAL YEAR 2021
JUNE 30, 2021
(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	\$ 462	\$ 450	\$ 11	2.5%
Other Revenue	-	-	-	-
Total Operating Revenue	\$ 462	\$ 450	\$ 11	2.5%
Personnel costs	\$ 165	\$ 105	\$ (60)	-56.8%
Outside services	9,327	9,547	220	2.3%
Materials and supplies	19	15	(4)	-25.9%
Energy	463	444	(19)	-4.3%
Risk management	7	15	8	51.4%
General & administrative	4	11	7	61.8%
Vehicle/facility leases	309	280	(29)	-10.4%
Administrative Allocation	206	206	0	0.0%
Total Operating Expenses	\$ 10,500	\$ 10,622	\$ 123	1.2%
Operating Income (Loss)	\$ (10,038)	\$ (10,172)	\$ 134	1.3%
Total Non-Operating Activities	10,038	10,172	(134)	-1.3%
Income (Loss) before Capital Contributions	\$ -	\$ 0	\$ (0)	-

**OPERATIONS
CORONADO FERRY**

COMPARISON TO BUDGET - FISCAL YEAR 2021

JUNE 30, 2021

(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	\$ -	\$ -	\$ -	-
Other Revenue	-	-	-	-
Total Operating Revenue	\$ -	\$ -	\$ -	-
Personnel costs	\$ -	\$ -	\$ -	-
Outside services	234	234	(0)	-0.1%
Materials and supplies	-	-	-	-
Energy	-	-	-	-
Risk management	-	-	-	-
General & administrative	-	-	-	-
Vehicle/facility leases	-	-	-	-
Administrative Allocation	-	-	-	0.0%
Total Operating Expenses	\$ 234	\$ 234	\$ (0)	-0.1%
Operating Income (Loss)	\$ (234)	\$ (234)	\$ (0)	-0.1%
Total Non-Operating Activities	234	234	0	0.1%
Income (Loss) before Capital Contributions	\$ -	\$ -	\$ -	-

ADMINISTRATION
CONSOLIDATED

COMPARISON TO BUDGET - FISCAL YEAR 2021

JUNE 30, 2021

(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	\$ -	\$ -	\$ -	-
Other Revenue	17,700	17,209	491	2.9%
Total Operating Revenue	\$ 17,700	\$ 17,209	\$ 491	2.9%
Personnel costs	\$ 21,185	\$ 22,238	\$ 1,053	4.7%
Outside services	16,064	17,994	1,930	10.7%
Materials and supplies	1	41	40	96.9%
Energy	852	921	69	7.5%
Risk management	3,155	3,184	28	0.9%
General & administrative	3,157	3,183	26	0.8%
Vehicle/facility leases	225	230	5	2.2%
Administrative Allocation	(27,374)	(27,374)	-	0.0%
Total Operating Expenses	\$ 17,266	\$ 20,417	\$ 3,151	15.4%
Operating Income (Loss)	\$ 434	\$ (3,208)	\$ 3,642	113.5%
Total Non-Operating Activities	16,210	3,208	13,002	405.2%
Income (Loss) before Capital Contributions	\$ 16,644	\$ 0	\$ 16,644	4755502151.9%

OTHER ACTIVITIES
CONSOLIDATED

COMPARISON TO BUDGET - FISCAL YEAR 2021

JUNE 30, 2021

(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	\$ -	\$ -	\$ -	-
Other Revenue	1,289	887	402	45.3%
Total Operating Revenue	\$ 1,289	\$ 887	\$ 402	45.3%
Personnel costs	\$ 574	\$ 576	\$ 2	0.4%
Outside services	77	104	27	26.3%
Materials and supplies	1	0	(1)	-594.9%
Energy	13	15	2	13.0%
Risk management	43	61	18	29.6%
General & administrative	57	66	10	14.6%
Vehicle/facility leases	(7)	26	33	128.7%
Administrative Allocation	35	35	(0)	0.0%
Total Operating Expenses	\$ 792	\$ 884	\$ 92	10.4%
Operating Income (Loss)	\$ 497	\$ 3	\$ 494	-16141.4%
Total Non-Operating Activities	(497)	(3)	(494)	16143.1%
Income (Loss) before Capital Contributions	\$ -	\$ 0	\$ (0)	-

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
MTS
COMBINED SUBSIDY AND OTHER NON-OPERATING REVENUE AND EXPENSES
COMPARISON TO BUDGET - FISCAL YEAR 2021
June 30, 2021
(in \$000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
<u>Subsidy Revenue</u>				
Federal Revenue	\$ 63,647	\$ 63,220	\$ 427	0.7%
FTA CARES Act	\$ 72,100	\$ 74,144	\$ (2,044)	-2.8%
Transportation Development Act	71,878	71,777	101	0.1%
State Transit Assistance	4,047	3,269	778	23.8%
State Revenue - Other	112	130	(18)	-13.7%
TransNet funds	44,062	41,770	2,292	5.5%
Other Local subsidies	9,392	9,429	(36)	-0.4%
Total Subsidy Revenue	\$ 265,239	\$ 263,738	\$ 1,501	0.6%
<u>Other Non-Operating Revenue and Expense</u>				
Investment Earnings	\$ -	\$ -	\$ -	-
Other Non-Operating Income	(2,997)	(2,503)	(494)	19.7%
Other Non-Operating Expenses	(477)	(481)	4	-0.9%
Total Other Non-Operating Revenue Revenue and Expense	\$ (3,474)	\$ (2,985)	\$ (490)	16.4%
Total Subsidy and Non-Operating Revenue and Expense	\$ 261,765	\$ 260,754	\$ 1,012	0.4%

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

MTS
CONTINGENCY RESERVE BALANCEJUNE 30, 2021
(in \$000's)

Balance, June 30, 2020		\$ 39,259
Current Year Adjustments:		
FY 2021 Income (Loss)	\$ 13,954	
FY 2021 Settlement Payment	\$ (500)	
Interest Adjustment	\$ (100)	
Allocate to Capital Improvement Program for Division Six Facility Project	\$ (11,726)	
Employee Appreciation Bonus	\$ (800)	
Contribution to Achieve 12.5% Reserves	\$ (714)	
Net Adjustments:		\$ 114
Balance, June 30, 2021		\$ 39,373
FY22 Operating Expense Budget		\$ 355,153
FY22 Operating Budget Adjustments:		
Debt Service	\$ (335)	
FHV Admin/SD&AE	\$ (917)	
Transnet Funded Operations	\$ (38,914)	
Net Adjustments:		\$ (40,166)
Adjusted FY22 Operating Expense Budget		\$ 314,987
Contingency Reserve % of MTS Operating Expense Budget		12.5%

Metropolitan Transit System FY 2021 - June 2021 Financial Review

MTS Budget Development Committee
October 15, 2021

CONSOLIDATED MTS OPERATIONS

COMPARISON TO BUDGET – JUNE 30, 2021 - FY 2021

FTA CARES ACT FUNDING

- COVID-19 Budget Impact:
 - FY21 Amended Budget included projected revenues and expenses
 - Structural deficit of \$74.1M (recurring revenues less recurring expenses)
- Federal CARES Act:
 - \$25B federal stimulus package in response to pandemic
 - MTS share is \$220M
 - FY21 Amended Budget included \$74.1M of projected CARES Act
- Favorable budget results in FY21 means less CARES Act needs
 - More CARES Act funding available for future years
 - Structural deficits until passenger revenue rebounds from pandemic

CONSOLIDATED MTS OPERATIONS

COMPARISON TO BUDGET – JUNE 30, 2021 - FY 2021

TOTAL OPERATING REVENUES (\$000's)

	<u>ACTUAL</u>	<u>BUDGET</u>	<u>VARIANCE</u>	<u>VAR %</u>
Fare Revenue	\$ 47,913	\$ 46,604	\$ 1,310	2.8%
Other Operating Revenue	\$ 19,822	\$ 18,382	\$ 1,440	7.8%
Operating Revenue	\$ 67,735	\$ 64,985	\$ 2,750	4.2%

- Fare Revenue
 - Revenue unfavorable to prior year by \$31.6M (-39.8%)
 - 49% of pre-pandemic baseline versus budgeted 47%
 - Ridership unfavorable to the prior year by 32.0M passengers (-44.9%)
- Other Operating Revenue
 - Favorable auction proceeds, lease income, and FHV Administration permit revenue

CONSOLIDATED MTS OPERATIONS

COMPARISON TO BUDGET – JUNE 30, 2021 - FY 2021

TOTAL OPERATING EXPENSES (\$000's)

	<u>ACTUAL</u>	<u>BUDGET</u>	<u>VARIANCE</u>	<u>VAR %</u>
Personnel Costs	\$ 150,915	\$155,751	\$ 4,837	3.1%
Purchased Transportation	\$ 73,624	\$ 74,129	\$ 505	0.7%
Other Outside Services	\$ 30,206	\$ 33,197	\$ 2,991	9.0%
Energy	\$ 32,389	\$ 33,032	\$ 643	1.9%
Other Expenses	\$ 28,413	\$ 29,630	\$ 1,217	4.1%
Operating Expenses	\$ 315,546	\$325,739	\$ 10,193	3.1%

- Personnel – favorable bus operator wages, retiree health and welfare expenses, unemployment insurance, paid absences, and cost recovery
- Purchased Transportation – favorable for both fixed route and paratransit
- Other Outside Services – favorable IT, security, and rail repair/maintenance costs
- Energy – favorable traction power electricity costs and CNG
- Other Expenses – favorable materials and supplies (germs shields) and risk management

CONSOLIDATED MTS OPERATIONS

COMPARISON TO BUDGET – JUNE 30, 2021 - FY 2021

TOTAL OPERATING VARIANCE (\$000's)

	<u>ACTUAL</u>	<u>BUDGET</u>	<u>VARIANCE</u>	<u>VAR %</u>
MTS Operating Revenue	\$ 67,735	\$ 64,985	\$ 2,750	4.2%
MTS Operating Expenses	\$ 315,546	\$ 325,739	\$ 10,193	3.1%
Total Net Operating Variance	\$ (247,811)	\$ (260,754)	\$ 12,943	5.0%

CONSOLIDATED MTS OPERATIONS

COMPARISON TO BUDGET – JUNE 30, 2021 - FY 2021

SUBSIDY REVENUE CATEGORY DESCRIPTIONS

- Federal
 - Recurring FTA funds for preventive maintenance and rural ops (5307, 5337, 5311)
- FTA CARES Act
 - \$25B federal stimulus package in response to pandemic; MTS share is \$220M
- Transportation Development Act (TDA)
 - 1/4 percent of regional sales tax assessed in region and administered by SANDAG and County
- Transnet
 - ½ cent sales tax in San Diego County to fund transportation projects
 - MTS receives formula share and reimbursement for Transnet funded operations

CONSOLIDATED MTS OPERATIONS

COMPARISON TO BUDGET – JUNE 30, 2021 - FY 2021

SUBSIDY REVENUE CATEGORY DESCRIPTIONS (CONTINUED)

- State Transit Assistance (STA)
 - State sales tax on diesel fuel distributed based on population and agency revenue

- Other
 - MediCal reimbursement for trips to and from Managed Care Providers (MCPs)
 - FasTrak revenue – toll road revenue appropriated by SANDAG
 - UCSD Shuttle Service Agreement
 - City of San Diego ADA Maintenance of Effort
 - NCTD Sorrento Valley Coaster Connection (SVCC)
 - Taxicab and SD&AE Self-Funded Reserves

CONSOLIDATED MTS OPERATIONS

COMPARISON TO BUDGET – JUNE 30, 2021 - FY 2021

TOTAL NON-OPERATING REVENUES (\$000's)

	<u>ACTUAL</u>	<u>BUDGET</u>	<u>VARIANCE</u>	<u>VAR %</u>
Federal	\$ 63,647	\$ 63,220	\$ 427	0.7%
FTA CARES	\$ 72,100	\$ 74,144	\$ (2,044)	-2.8%
TDA	\$ 71,878	\$ 71,777	\$ 101	0.1%
TransNet	\$ 44,062	\$ 41,770	\$ 2,292	5.5%
STA	\$ 4,047	\$ 3,269	\$ 778	23.8%
Other	\$ 6,508	\$ 7,056	\$ (548)	-7.8%
Non-Operating Revenue	\$ 262,242	\$ 261,235	\$ 1,007	0.4%

- Federal (Recurring) – CARES allocations for 5311/5311f rural operations
- FTA CARES – deficit lower than projected; needed less CARES to fill gaps
- TDA – strong sales tax receipts will impact FY22, received claim amount this year
- Transnet – strong sales tax receipts
- STA – allocations from state higher than original state projections
- Other – lower reserve usage for FHV Admin and SD&AE (contributed to reserves)

CONSOLIDATED MTS OPERATIONS

COMPARISON TO BUDGET – JUNE 30, 2021 - FY 2021

TOTAL REVENUES LESS EXPENSES (\$'000's)

	<u>ACTUAL</u>	<u>BUDGET</u>	<u>VARIANCE</u>	<u>VAR %</u>
Operating Revenues	\$ 67,735	\$ 64,985	\$ 2,750	4.2%
Operating Expenses	315,546	325,739	10,193	3.1%
Net Operating Loss	\$(247,811)	\$(260,754)	\$ 12,943	5.0%
Non-Operating Revenues	\$ 190,142	\$ 187,091	\$ 3,051	1.6%
Net Debt Service Expenses	477	481	4	0.9%
Net Deficit	\$ (58,146)	\$ (74,144)	\$ 15,998	
Federal CARES Act	72,100	74,144	(2,044)	
Revenues Less Expenses	\$ 13,954	\$ 0	\$ 13,954	

- Total favorable variance of \$14.0M when combining operating and non-operating revenues and expenses
- Structural deficit of \$58.1M

CONSOLIDATED MTS OPERATIONS

COMPARISON TO BUDGET – JUNE 30, 2021 - FY 2021

CONTINGENCY RESERVE BALANCE (\$000's)

- Board policy for the contingency reserve balance
 - Target set at 12.5% of the Operating Expense Budget
 - FY22 Target of \$39.4M
- Current Reserve Balance
 - \$14.0M excess revenue over expenses in FY21
 - \$13.4M excess revenue after adjustments for interest and planned reserve activity for FY21
- Proposed allocation:
 - \$800K to fund Board-approved front-line employee bonuses
 - \$714K to MTS contingency reserve to achieve 12.5% target for FY22
 - \$11.7M to CIP to fund new Division Six facility

Staff Recommendation

That the Budget Development Committee forward a recommendation to the Board of Directors to approve the allocation of excess revenues over expenses in FY21 to the following:

- \$800K to fund Board-approved front-line employee bonuses
- \$714K to MTS contingency reserve to achieve 12.5% target for FY22
- \$11.7M to CIP to fund new Division Six facility



**Metropolitan
Transit
System**

Agenda Item No. 6

**MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BUDGET DEVELOPMENT COMMITTEE**

October 15, 2021

SUBJECT:

SAN DIEGO TRANSIT CORPORATION (SDTC) EMPLOYEE RETIREMENT PLAN'S (PLAN) ACTUARIAL EXPERIENCE STUDY (ALICE ALSBERGHE OF CHEIRON INC. AND LARRY MARINESI)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Budget Development Committee forward a recommendation to the Board of Directors to:

- 1) Adopt the Actuarial Experience Study of the SDTC's Employee Retirement Plan; and
- 2) Approve the revised actuarial assumptions.

Budget Impact

None at this time. The revised actuarial assumptions will be effective with the actuarial valuation report dated June 30, 2021 and be incorporated into the Fiscal Year (FY) 2023 operating budget.

DISCUSSION:

The following are the results of an Experience Study of SDTC's Retirement Plan for the evaluation period of July 1, 2015 through June 30, 2020. 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 SDTC, and if not, to suggest adjustments.

In this Experience Study, SDTC's Retirement Plan's demographic experience – observed rates of retirement, withdrawal, termination, disability, and mortality – is compared with the experience expected under the actuarial assumptions adopted to determine Plan actuarial liabilities and cost and whether 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:

- Adopt new mortality tables, based on the Amalgamated Transit Union (ATU) mortality tables produced by Cheiron for represented employees, and the Public 2010 General Healthy Retiree tables for Non-Contract and Clerical.
- Reducing the investment rate of return assumption from 6.75% to 6.00%.
- Reducing the inflation assumption from 2.75% to 2.50%.

The table below provides a summary of experience and the expected impact of the proposed assumption changes on the overall Plan contribution, which would be effective as of July 1, 2020.

<i>Assumption Change</i>	<i>Impact</i>
Investment rate of return	\$ 2,170,000
Mortality	-730,000
Retirement rates	-302,000
Inflation	-143,000
Other	59,000
Total Contribution Increase	\$ 1,054,000

Should all of the recommendations in this report be adopted, it would result in an increase in the total actuarial contribution of approximately \$1.1 million for the next actuarial valuation report. The results of that actuarial valuation will set the contribution amount for SDTC's Employee Retirement Plan for the FY 2023 operating budget.

/s/ Sharon Cooney

Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Draft SDTC Actuarial Experience Study July 1, 2015 through June 30, 2020



Retirement Plans of San Diego Transit Corporation

**Actuarial Experience Study
for July 1, 2015 through
June 30, 2020**

Produced by Cheiron

September 2021

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September 17, 2021

Mr. Larry Marinesi
 San Diego Transit Corporation
 1255 Imperial Avenue, Suite 1000
 San Diego, California 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, 2015, through June 30, 2020. This report includes analyses and proposed economic and demographic assumptions for the use of the Retirement Board and the San Diego Metropolitan Transit System (MTS) Board in selecting assumptions to be used beginning with the July 1, 2021 actuarial valuation.

In preparing our report, we relied on information (some oral and some written) supplied by the plan administrator, 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.

Cheiron utilizes ProVal, an actuarial valuation software program leased from Winklevoss Technologies (WinTech), to calculate liabilities and projected benefit payments. We have reviewed the underlying workings of this model to the degree feasible and consistent with Actuarial Standard of Practice No. 56 and believe them to be appropriate for the purposes of this experience study report.

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 as well as applicable law and regulations. 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. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

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

Sincerely,
 Cheiron

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

Alice I. Alsberghe, ASA, MAAA, EA
 Consulting Actuary

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

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 SDTC, and if not, to suggest 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 or assets that would warrant such frequent or significant changes.

This study does not take into account any of the implications on a short or long term basis of the impact COVID-19 may have on the Plans, other than those that are reflected in the data through June 30, 2020. As the long term implications of COVID-19 are still uncertain, we have not made any adjustments to our proposed assumptions at this time.

SUMMARY OF ECONOMIC ASSUMPTION ANALYSIS

The specific economic assumptions analyzed in this report are price inflation, wage and pensionable payroll growth, and the discount rate. These assumptions have a significant impact on the contributions in the short-term and the risk of negative outcomes in the long-term. The current economic assumptions are an assumed 6.75% normal investment rate of return on Plan assets and a 2.75% annual increase in prices measured by the Consumer Price Index (CPI). This results in a real rate of return assumption of 4.00% (6.75% normal return minus 2.75% inflation).

We are proposing that the assumed rate of investment return is reduced from 6.75% to 6.00% and that the inflation assumption is reduced from 2.75% to 2.50%. A reduction in the nominal investment rate of return to 6.00%, as well as a reduction in the price inflation to 2.50%, results in a real rate of return decrease to 3.50%.

The current real return assumption of 4.00% is more optimistic than RVK's 10-year capital market assumptions and more optimistic than a 2021 survey of investment consultants (Horizon Survey) for both the short term (10-year) and long term expectations (20-year).

In addition, the nominal assumed earnings rate of 6.75% is higher than the 10-year capital market assumptions of RVK for the current target portfolio. The 10-year projections reported by RVK include an average annual return on investments of 4.45%, with 2.00% assumed annual inflation. Without a change to the economic assumptions, if the current target asset allocation is maintained and RVK's projections are realized, the Board can expect a pattern of actuarial losses from the assets in the near term.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

SECTION I – EXECUTIVE SUMMARY

SUMMARY OF DEMOGRAPHIC ASSUMPTION ANALYSIS

This experience study specifically analyzes and makes the following recommendations for the demographic assumptions to better align with actual experience.

- **Merit salary increases** – No changes are proposed for all plans.
- **Retirement rates** – For all plans, propose to decrease the overall expected rates of retirement.
- **Termination rates** – For all plans, propose slight modifications to the rates of termination.
- **Disability rates** – Lower rates are proposed for ATU and IBEW members.
- **Mortality rates** – We propose new mortality tables, based on the ATU mortality tables produced by Cheiron for ATU and IBEW, and the Public 2010 General Healthy Retiree tables for Non-Contract and Clerical. Generational improvement for all members is proposed from the base year of these tables, using MP-2020 projection scale.
- **Administrative expenses** – We propose a slight decrease to the assumption for administrative expenses based on the 5-year average adjusted for inflation.

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

COST OF ECONOMIC AND DEMOGRAPHIC ASSUMPTION CHANGES

The changes to the economic assumptions have the largest impact on funded status and contributions. Among the demographic assumptions, the proposed changes to mortality have the largest impact on contributions.

Tables I-1 and I-2 summarize the estimated total (employer plus employee) cost impact from the proposed changes to demographic and economic assumptions contained in this report. The cost impacts have been measured using the current funding policies, in particular a 16-year level dollar amortization of the change in the Unfunded Actuarial Liability (UAL).

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

SECTION I – EXECUTIVE SUMMARY

Table I-1

San Diego Transit Retirement Plans Estimated Impact of Proposed Assumption Changes					
	2020 Valuation	All Demographic Assumption Changes	All Demographic plus Assumed Inflation Change	6.00% Assumed Investment Return plus all Other Changes	
Discount Rate	6.75%	6.75%	6.75%	6.00%	
Inflation	2.75%	2.75%	2.50%	2.50%	
Actuarial Liability (AL)	\$ 315,200,000	\$ 303,400,000	\$ 302,800,000	\$ 325,500,000	
Estimated Change in AL		(11,800,000)	(12,400,000)	10,300,000	
Funded Ratio	56.3%	58.5%	58.6%	54.5%	
Total Contribution	\$ 17,586,000	\$ 16,613,000	\$ 16,470,000	\$ 18,640,000	
Estimated Cumulative Change in Contribution		\$ (973,000)	\$ (1,116,000)	1,054,000	

Table I-2

Contribution Impact of Individual Assumption Changes	
Mortality Changes	\$ (730,000)
Retirement Changes	(302,000)
Termination Changes	29,000
Disability Changes	38,000
Administrative Expenses	<u>(8,000)</u>
All Demographic Assumption Changes	\$ (973,000)
Inflation: Reduction from 2.75% to 2.50%	\$ (143,000)
Assumed Investment Return:	
Reduction from 6.75% to 6.00%	<u>\$ 2,170,000</u>
Total Estimated Change in Contribution	\$ 1,054,000

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION II – ECONOMIC ASSUMPTIONS
PRICE INFLATION**

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 indirectly as an underlying component of other economic assumptions.
- **Wage inflation** – across the board wage growth used to project benefits.
- **Nominal Rate of Return/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.

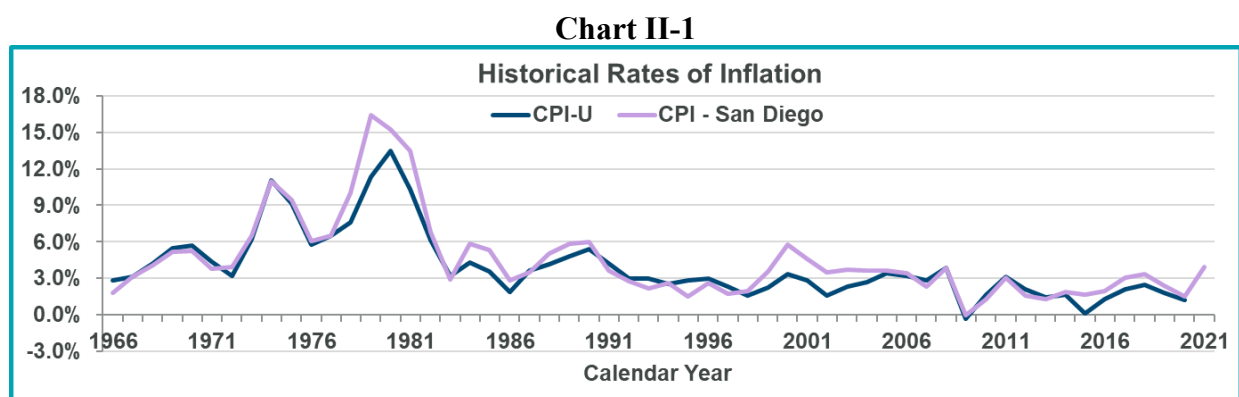
In order to develop recommendations for each of these assumptions, we considered historical data, both nationally and for the Plan, and expectations for the future, as expressed by the Plan’s investment consultant and the Boards.

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 II-1 below shows inflation for the U.S. and for San Diego by individual year since 1966.



Over the last 55 years, the geometric average inflation rate for the U.S. has been about 3.9%, but this average is heavily influenced by the high inflation rates in the late 1970s and early 1980s. Over the last 30 years, the geometric average inflation rate has been 2.3%, and it has only been 1.7% over the last 10 years. The inflation rate for San Diego has generally tracked U.S. inflation reasonably closely but has been somewhat higher over the past decade.

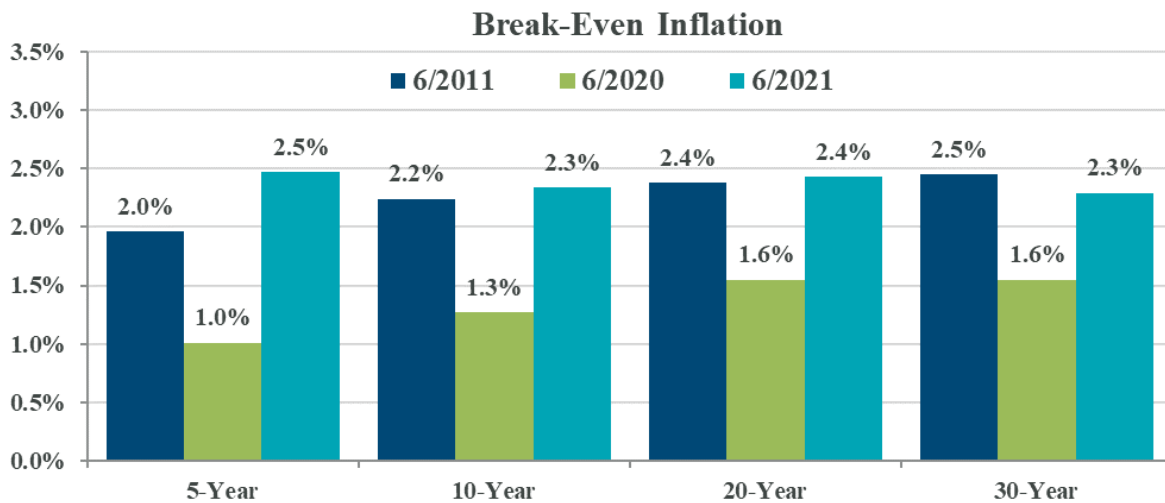
**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION II – 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/notes and Treasury Inflation-Protected Securities (TIPS) at the same maturity. Chart II-2 shows the break-even inflation rate as of June 2021, as well as one year and 10 years earlier. Break-even inflation is the level of inflation needed for an investment in TIPS to “break even” with an investment in conventional treasury bonds/notes of the same maturity.

Chart II-2



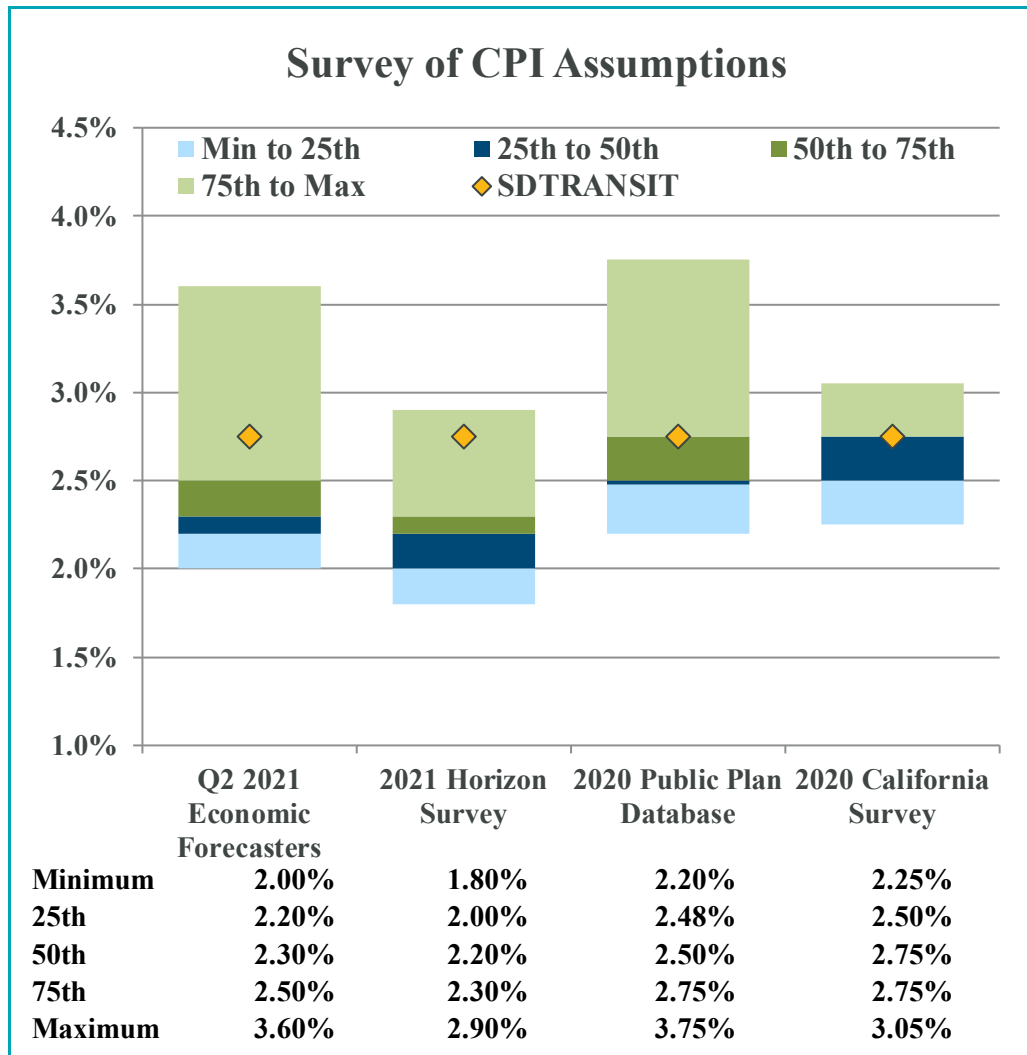
Data Source Federal Reserve, Constant Maturity Yields, Monthly Series

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION II – ECONOMIC ASSUMPTIONS
PRICE INFLATION**

The Federal Reserve Bank of Philadelphia publishes a quarterly survey of professional economic forecasters. Chart II-3 below shows the distribution of the professionals' forecasts for average inflation over the next 10 years, compared to a survey of investment consultants performed by Horizon Actuarial Services, as well as a database of assumptions used by U.S. public pension plans and a Cheiron survey of assumptions used by California public pension plans.

Chart II-3



The Plan's investment consultant, RVK, uses a long-term inflation assumption of 2.00%.

Considering all of these surveys and RVK's assumption, we propose reducing the current inflation assumption from 2.75% to 2.50% to be more in line with future expectations.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION II – ECONOMIC ASSUMPTIONS
WAGE INFLATION**

WAGE INFLATION

Wage inflation can be thought of as the annual across-the-board increase in wages. Individuals often receive salary increases in excess of the wage inflation rate, and we study these increases as a part of the merit salary increase assumption. Wage inflation is used in the actuarial valuation as the minimum expected salary increase for an individual.

Wage inflation generally exceeds price inflation by some margin reflecting the history of increased purchasing power. However, California transit workers did not experience much real wage growth from 2009 to 2020. 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 propose maintaining a wage inflation assumption equal to the assumed inflation rate.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION II – ECONOMIC ASSUMPTIONS
DISCOUNT RATE**

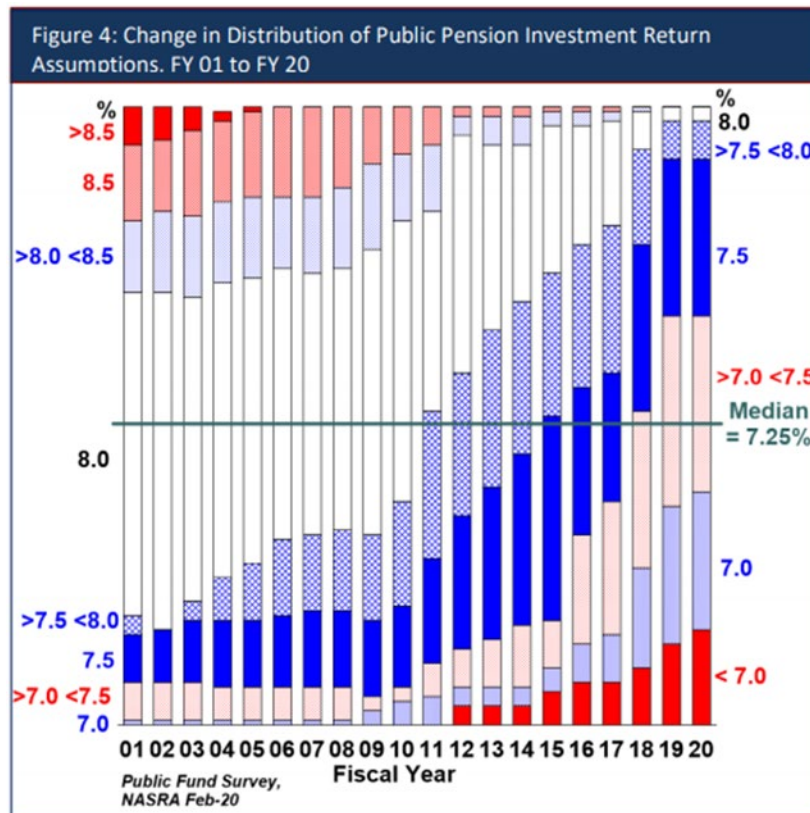
NOMINAL INVESTMENT RATE OF RETURN/DISCOUNT RATE

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 biased, particularly to be too low.

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 at least the last decade to reduce the discount rate used in actuarial valuations. Chart II-4 below shows the change in the distribution of assumptions since 2001. The median assumption is now 7.25% and the number of plans using a discount rate of 7.0% or lower has increased significantly.

Chart II-4



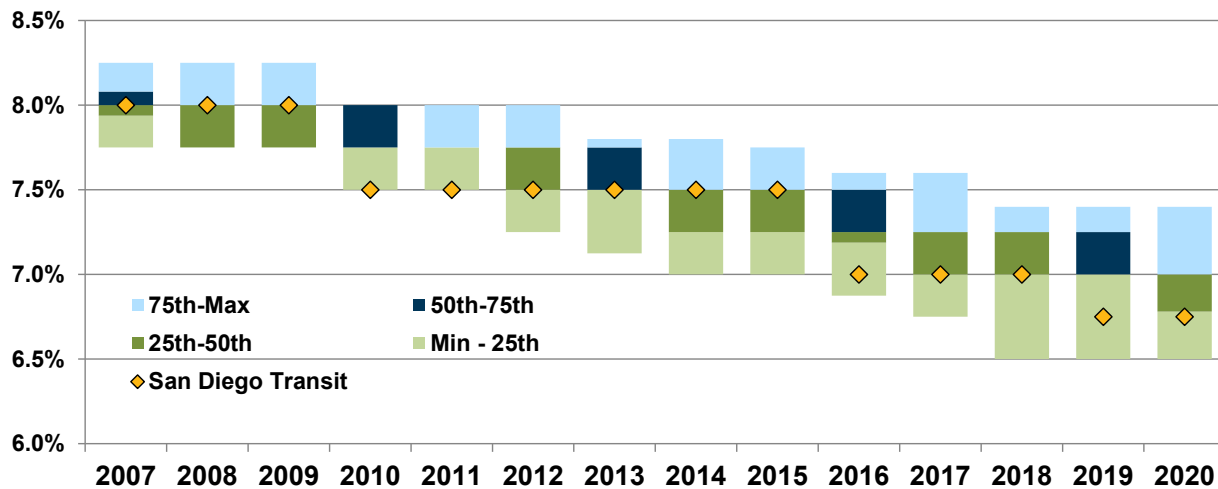
**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION II – ECONOMIC ASSUMPTIONS
DISCOUNT RATE**

Chart II-5 below shows the change in discount rate assumptions for California systems from 2007 to 2020. Almost all of these systems are open to all new entrants and have more risk within their asset allocations and as a result have higher expected returns than San Diego Transit Corporation’s portfolio. The Retirement Plans of San Diego Transit Corporation are closed to most new entrants, except for the Non-Contract group, and the Plan’s portfolio has a larger percentage of assets invested in fixed income asset classes. As a result, SDTC’s portfolio has a much lower expected return than most California systems.

As shown in the chart below, the current discount rate for SDTC is 6.75%. Other public retirement systems in the San Diego area, San Diego City Employees’ Retirement System (SDCERS) and San Diego County Employees’ Retirement Association (SDCERA), have discount rates as of June 30, 2020 of 6.50% and 7.00%, respectively. The California Public Employees Retirement System (CalPERS) discount rate as of June 30, 2020 was 7.00%. Both SDCERA and CalPERS’ Boards are lowering their discount rates to 6.75% and 6.80%, respectively, for the June 30, 2021 actuarial valuations. While these comparisons may be of interest, it is important to note that SDTC is very different from these systems in terms of size and asset allocation given that SDTC is a largely closed system.

Chart II-5
Discount Rate Trends
Cheiron Survey of California Systems



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION II – ECONOMIC ASSUMPTIONS
DISCOUNT RATE**

Target Asset Allocation and Future Expectations

The nominal expected return on assets depends on the allocation of assets to different asset classes (e.g., stocks, bonds, etc.) and the capital market assumptions for each of the asset classes.

Table II-1 below shows the expected nominal geometric return based on the Plan’s current target asset allocation and the capital market assumptions provided by the Plan’s investment consultant (RVK), as well as an average set of capital market assumptions based on a survey of multiple investment consultants published by Horizon Actuarial Services. The table also shows the underlying inflation assumption used by the investment consultants in the development of their capital market assumptions and computes the expected real rate of return (investment return in excess of inflation). These results were produced using an internally developed model, which relies on asset class returns, standard deviations, and correlations provided by RVK and Horizon Actuarial Services, and which reflects an assumption that asset class returns are lognormally distributed.

Table II-1

San Diego Transit Corporation Target Portfolio Return Expectations			
Source	Nominal	Inflation	Real
RVK (10-Year)	4.45%	2.00%	2.45%
Horizon Survey (10-Year)	4.95%	2.13%	2.82%
Horizon Survey (20-year)	<u>5.68%</u>	<u>2.24%</u>	<u>3.44%</u>
Average	5.03%	2.12%	2.90%
Current Assumption	6.75%	2.75%	4.00%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION II – ECONOMIC ASSUMPTIONS
DISCOUNT RATE**

Based on these capital market assumptions, we also calculated the potential distribution of nominal returns over 10-year and 20-year periods (as applicable), as shown in Table II-2 below. These results were determined based on the same internally developed model.

Table II-2

Expected Distribution of Average Nominal Annual Investment Returns			
Percentile	RVK (10 years)	Horizon Survey (10 years)	Horizon Survey (20 years)
95th	9.4%	10.4%	9.5%
75th	6.5%	7.2%	7.2%
60th	5.2%	5.8%	6.3%
50th	4.4%	4.9%	5.7%
40th	3.7%	4.9%	5.1%
25th	2.5%	2.8%	4.1%
5th	-0.3%	-0.3%	2.0%

Finally, we calculated the likelihood of achieving various nominal and real return thresholds, using the same model as described above, with the results shown in Table II-3 and Table II-4 below. We note that for the purposes of this analysis, we used the applicable constant inflation assumption from the assumption set to estimate the real return from the simulated nominal returns. This practice may result in inaccurate estimates to the extent that the real returns by asset class are not independent of inflation.

Table II-3

Consultant	Expected Nominal Return	Likelihood of Achieving Nominal Returns		
		5.50%	6.00%	6.75%
RVK (10-Year)	4.45%	36%	30%	22%
Horizon Survey (10-Year)	4.95%	43%	37%	29%
Horizon Survey (20-Year)	<u>5.68%</u>	<u>52%</u>	<u>46%</u>	<u>37%</u>
Average	5.03%	44%	38%	29%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION II – ECONOMIC ASSUMPTIONS
DISCOUNT RATE**

Table II-4

Consultant	Expected Real Return	Likelihood of Achieving Real Returns		
		3.00%	3.50%	4.00%
RVK (10-Year)	2.45%	43%	36%	30%
Horizon Survey (10-Year)	2.82%	48%	42%	36%
Horizon Survey (20-Year)	<u>3.44%</u>	<u>56%</u>	<u>49%</u>	<u>43%</u>
Average	3.44%	56%	49%	43%

As shown in Table II-1, we calculated an average expected geometric real return of 2.90%, which is below the Plan's current real return assumption of 4.00%. The average nominal return of 5.03% is also lower than the current nominal return assumption of 6.75%.

We propose that the Board reduce the current real return assumption from 4.00% to 3.50%; and reduce the nominal return assumption from 6.75% to 6.00%, which is more reasonable for the assumption based on the future market expectations.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III – 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, with some adjustments where future experience is expected to differ from historical experience and with deference to standard tables where SDTC experience is not fully credible, and a standard table is available. For purposes of this study, merit salary increases, and administrative expenses are also considered demographic assumptions because the assumptions are based primarily on SDTC's historical 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, promotion, and longevity. Increases due to cost-of-living and non-inflationary base pay factors were addressed in an earlier section of this report.

The merit salary increase assumption is analyzed by employee group (ATU Drivers, IBEW Mechanics, Non-Contract and Clerical participants) and by service. Charts III-1 through III-4 on the following 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, 2020, 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). A transverse study serves as a reliable way to assess average increases in pay due to merit. With a homogeneous group of any size at all, the pattern of promotions and longevity increases during the career of an average employee is visible in this analysis.

In each chart, the current assumption (the blue line) represents the current assumed pay increases due to merit and the teal diamonds represent the average pay at each year of service. The current assumptions for all groups are close to the observed increases, as a result, no changes are proposed at this time.

RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020

SECTION III – DEMOGRAPHIC ASSUMPTIONS
MERIT SALARY INCREASES

Chart III-1

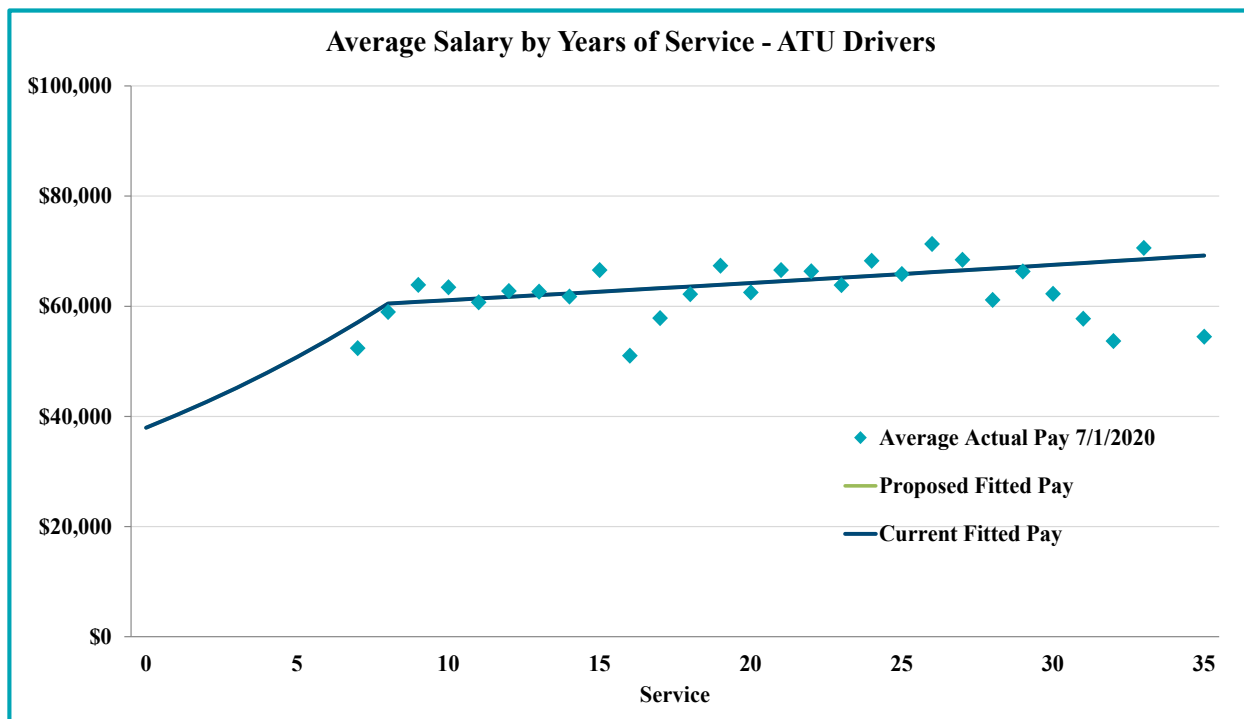
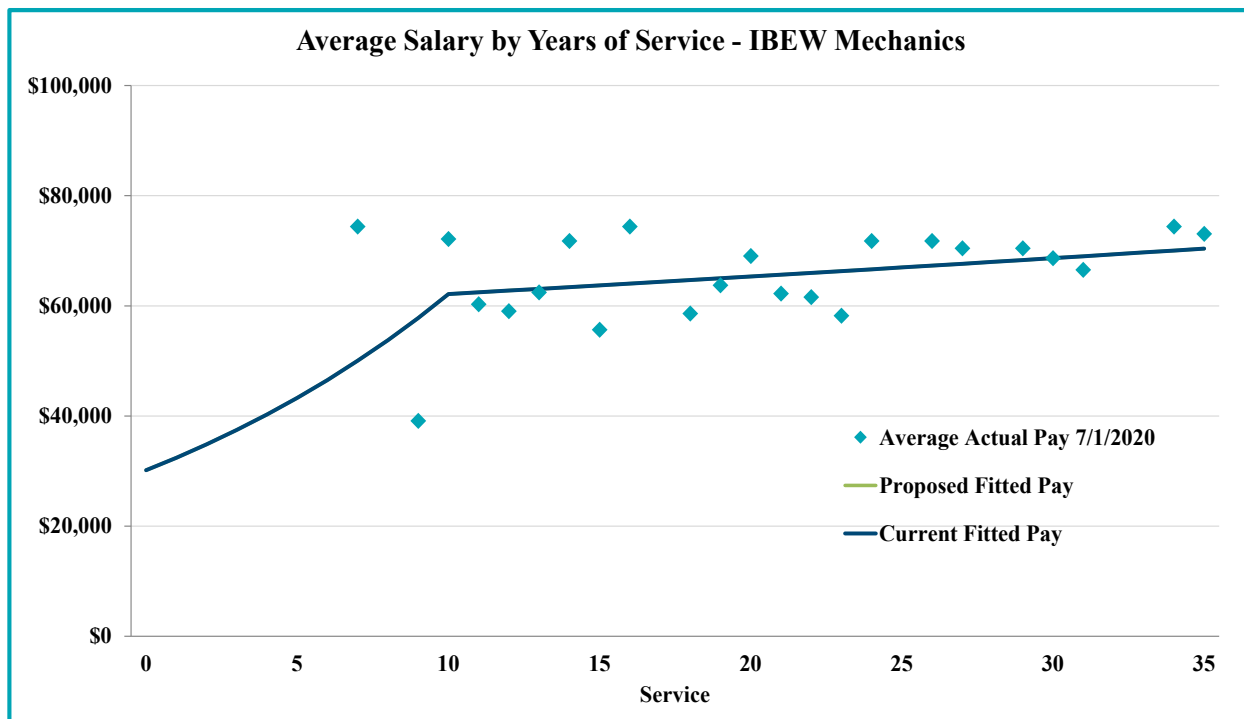


Chart III-2



RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020

SECTION III – DEMOGRAPHIC ASSUMPTIONS
MERIT SALARY INCREASES

Chart III-3

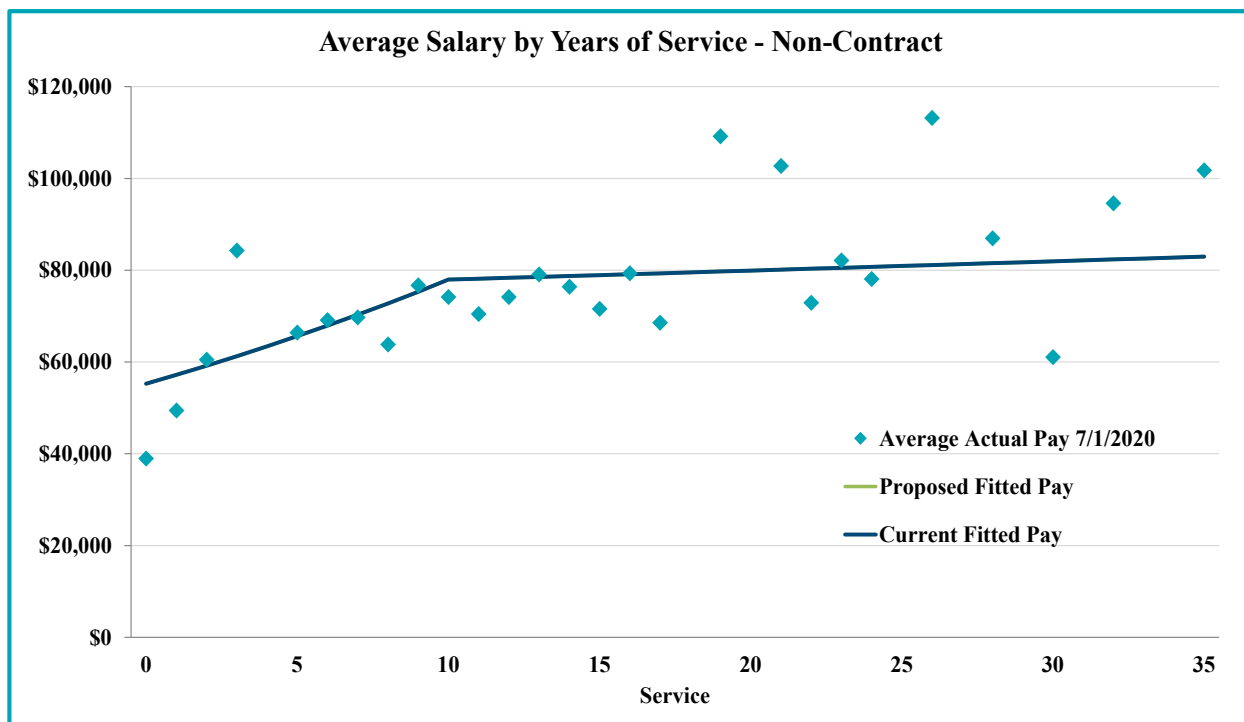
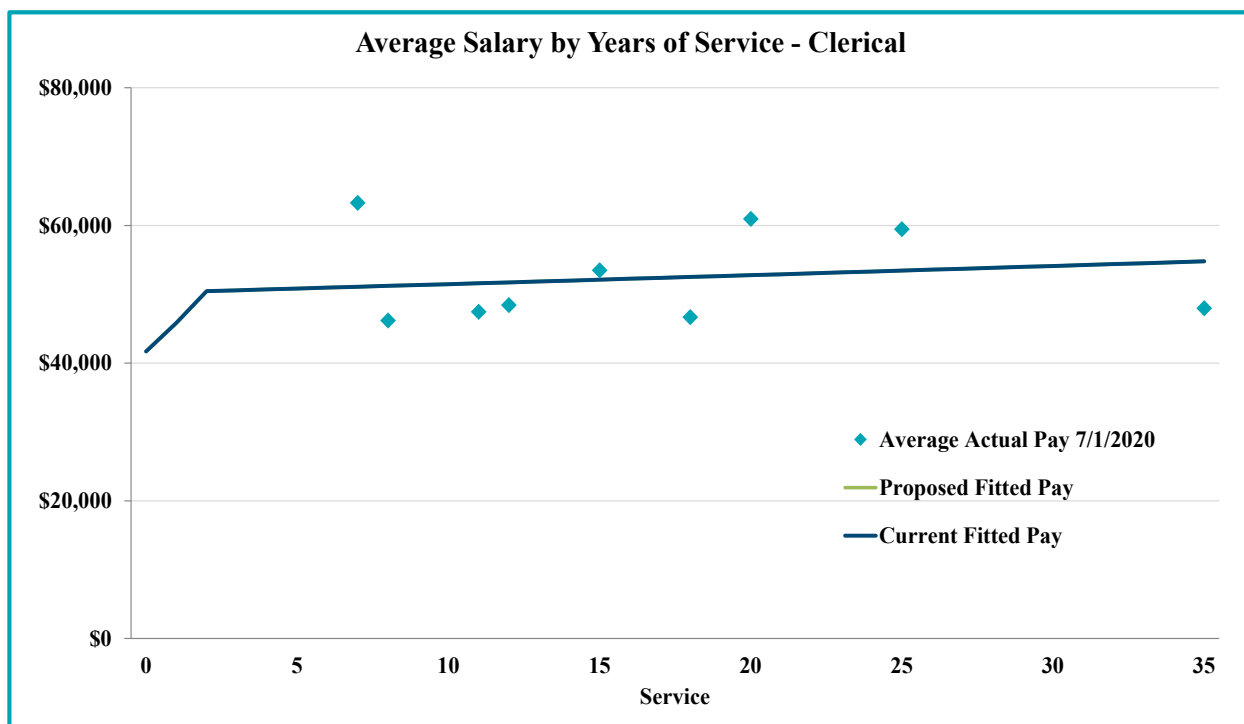


Chart III-4



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III – DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES**

ANALYSIS OF OTHER DEMOGRAPHIC ASSUMPTIONS

For most of the remaining demographic assumptions, we determined the ratio of the actual number of decrements for each membership group 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%. Otherwise, any proposed assumption change should move from the current A/E ratio towards 100% unless future experience is expected to be different than the experience during the period of study.

In addition, we calculated the 90% confidence interval using a binomial distribution, which represents the range within which the true decrement rate during the experience study period fell with 90% confidence. We generally propose assumption changes when the current assumption is outside the 90% 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. For mortality rates, we compare SDTC's experience to that of a published table and adjust the tables to bring the proposed assumption closer to an A/E ratio of 100% taking into account the level and credibility of SDTC's experience.

Our internal model uses the limited fluctuation approach to assign full credibility when there is a 90% probability that SDTC's sample experience rate will be within 5% of the true expected rate. For assumptions where the expected rate is near zero, this approach requires 1082 actual decrements for full credibility. When there is insufficient experience for full credibility, partial credibility is assigned, weighting SDTC's experience by the square root of the ratio of actual decrements in the sample to the number of decrements required for full credibility. The remaining weight is given to the published table.

Essentially, this method results in relying on a combination of SDTC's experience, as well as standard tables produced based on studies of much larger populations. This is a commonly used technique for developing assumptions for smaller plans such as SDTC's. Other methods of determining credibility may produce a different result.

To track how well the assumption fits the pattern of the data, we calculate the percentage of the assumptions that fall within the 90% confidence interval. Any proposed assumption change should increase the percentage of assumptions within the confidence interval compared to the current assumption making it closer to 100% unless the pattern of future decrements is expected to be different from the pattern experienced during the period of study.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES**

RETIREMENT RATES

In the tables and charts that follow, detailed retirement experience results are shown by plan 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. In the last experience study, actual retirements were less than expected and we lowered the assumed retirement rates. In general, we are seeing the same trend with this experience study and are proposing lower retirement rates for all groups.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES**

Table III-R1 shows the calculation of actual-to-expected ratios for ATU Drivers across all service levels. Chart III-R1 shows the information graphically along with the 90% confidence intervals.

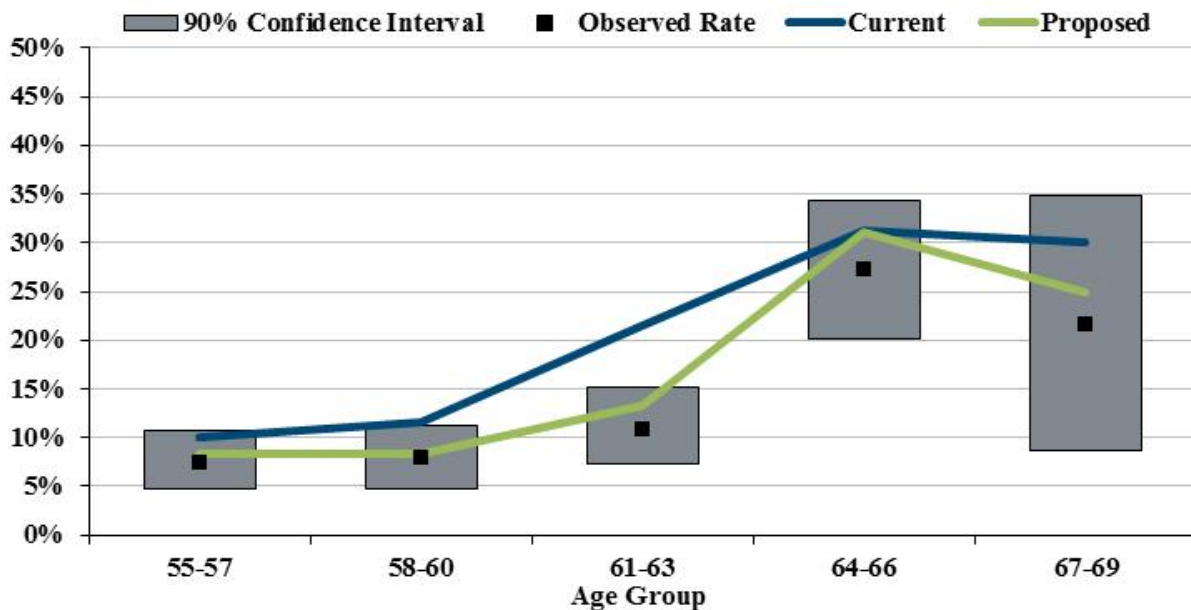
The data shows lower actual retirement rates than expected under the current assumption, particularly between the ages of 61-63, where the current assumption is outside the 90% confidence interval. We are proposing lower rates for most ages. The proposed assumptions decrease the aggregate assumed rate of retirement and increase the aggregate A/E ratio from 69% to 88%. Refer to Appendix A for current rates and Appendix B for the proposed rates by age.

Table III-R1

ATU Drivers Retirement Rates									
Age	Exposures	Number of Retirements			Retirement Rates			A/E Ratios	
		Actual	Current	Proposed	Actual	Current	Proposed	Current	Proposed
55-57	215	16	22	18	7%	10%	8%	74%	90%
58-60	187	15	22	16	8%	12%	8%	69%	96%
61-63	165	18	36	22	11%	22%	13%	51%	82%
64-66	99	27	31	31	27%	31%	31%	87%	88%
67-69	23	5	7	6	22%	30%	25%	72%	87%
Total	689	81	117	92	12%	17%	13%	69%	88%

Chart III-R1

ATU Retirement Rates



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES**

Table III-R2 shows the calculation of actual-to-expected ratios for IBEW members across all service levels. Chart III-R2 shows the information graphically along with the 90% confidence intervals.

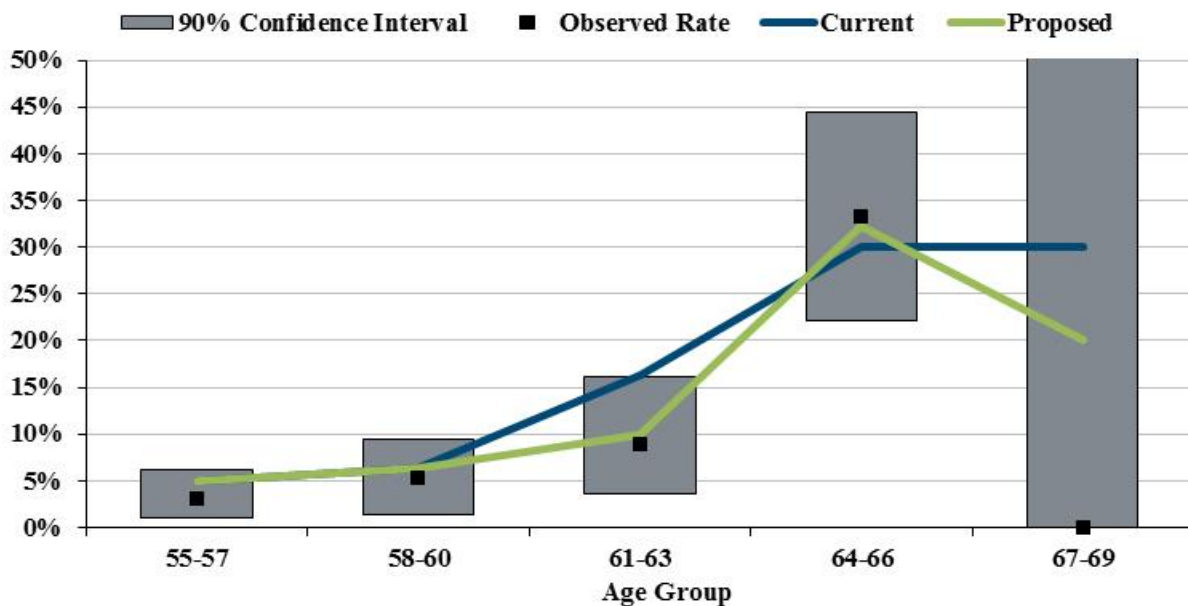
The data shows lower actual retirement rates than expected under the current assumption. We are proposing lower rates at most ages. The proposed assumptions decrease the aggregate assumed rate of retirement and increase the aggregate A/E ratio from 77% to 86%.

Table III-R2

IBEW Mechanics Retirement Rates									
Age	Exposures	Number of Retirements			Retirement Rates			A/E Ratios	
		Actual	Current	Proposed	Actual	Current	Proposed	Current	Proposed
55-57	97	3	5	5	3%	5%	5%	62%	62%
58-60	74	4	5	5	5%	6%	6%	85%	85%
61-63	56	5	9	6	9%	16%	10%	55%	89%
64-66	45	15	14	15	33%	30%	32%	111%	103%
67-69	9	0	3	2	0%	30%	20%	0%	0%
Total	281	27	35	32	10%	12%	11%	77%	86%

Chart III-R2

IBEW Retirement Rates



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
RETIREMENT RATES**

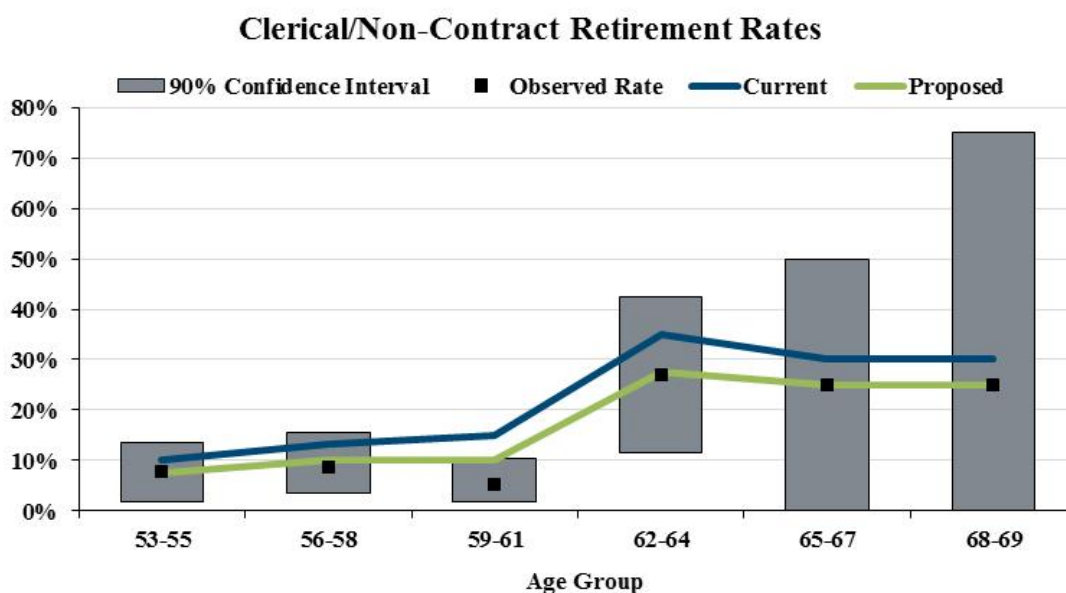
Table III-R3 shows the calculation of actual-to-expected ratios for all Clerical and Non-Contract members across all service groups. Chart III-R3 shows the information graphically along with the 90% confidence intervals.

The data shows lower actual retirement rates than expected under the current assumption. We are proposing lower rates at all ages. The proposed assumptions decrease the aggregate assumed rate of retirement and increase the aggregate A/E ratio from 64% to 86%.

Table III-R3

Clerical/Non-Contract Retirement Rates									
Age	Exposures	Number of Retirements			Retirement Rates			A/E Ratios	
		Actual	Current	Proposed	Actual	Current	Proposed	Current	Proposed
53-55	52	4	5	4	8%	10%	8%	77%	103%
56-58	58	5	8	6	9%	13%	10%	65%	86%
59-61	58	3	9	6	5%	15%	10%	34%	52%
62-64	26	7	9	7	27%	35%	28%	77%	98%
65-67	8	2	2	2	25%	30%	25%	83%	100%
68-69	4	1	1	1	25%	30%	25%	83%	100%
Total	206	22	34	26	11%	17%	12%	64%	86%

Chart III-R3



Although some have speculated that the reduced multipliers reflected in the PEPRA benefits may result in members working longer than they would have under the old benefit formulas, we do not yet have enough experience to support a different set of assumptions. In addition, our initial modeling of the PEPRA benefits revealed that the actuarially determined contributions required to fund these benefits are relatively insensitive to the actual retirement rates, as a result of the early retirement reductions reflected in the benefit formulas. We will continue to monitor the retirement behavior of the PEPRA members as it develops and consider in future experience studies whether different sets of retirement rates are appropriate for these groups.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
TERMINATION RATES**

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 service 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%. 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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

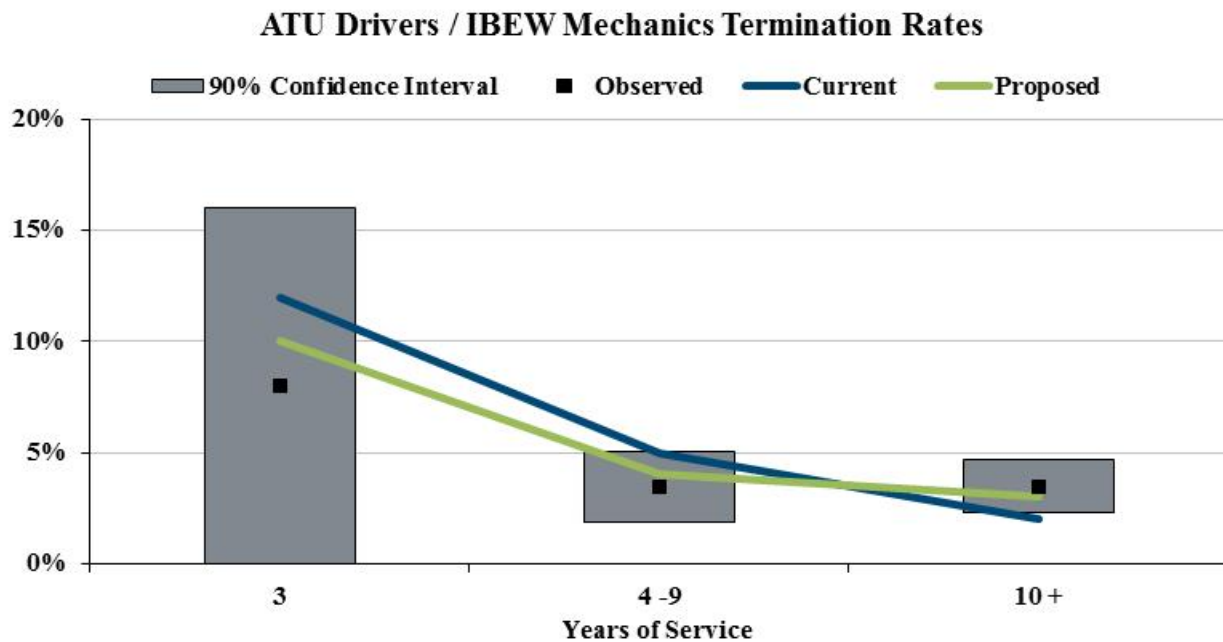
**SECTION III - DEMOGRAPHIC ASSUMPTIONS
TERMINATION RATES**

Table III-T1 shows the calculation of actual-to-expected ratios for ATU Drivers and IBEW members, and Chart III-T1 shows the information graphically along with the 90% confidence intervals. The data shows lower actual termination rates between four and nine years of service but higher actual termination rates for active members with 10 or more years of service, compared to the current assumptions. The proposed assumptions increase the assumed rates of termination and decrease the aggregate A/E ratio from 110% to 102%.

Table III-T1

ATU Drivers / IBEW Mechanics Termination Rates									
Service	Exposures	Number of Terminations			Termination Rates			A/E Ratios	
		Actual	Current	Proposed	Actual	Current	Proposed	Current	Proposed
3	25	2	3	3	8%	12%	10%	67%	80%
4-9	377	13	19	15	3%	5%	4%	69%	86%
10+	688	24	14	21	3%	2%	3%	174%	116%
Total	1,090	39	36	38	4%	3%	4%	110%	102%

Chart III-T1



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

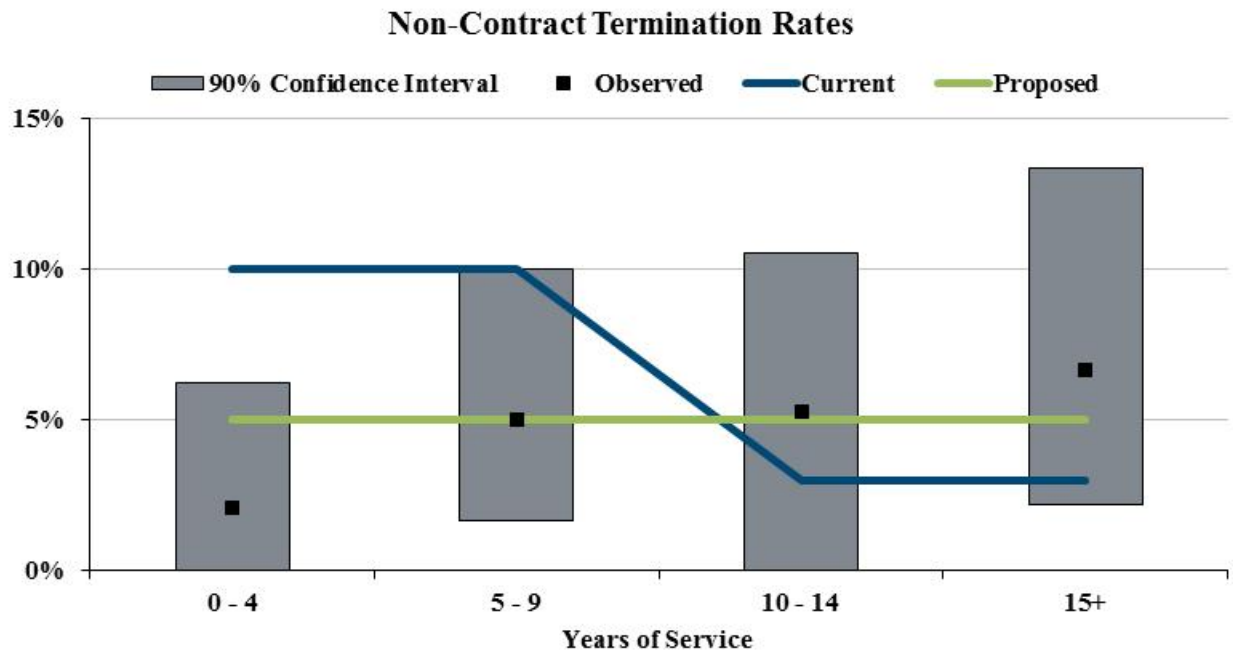
**SECTION III - DEMOGRAPHIC ASSUMPTIONS
TERMINATION RATES**

Table III-T2 shows the calculation of actual-to-expected ratios for Non-Contract members, and Chart III-T2 shows the information graphically along with the 90% confidence intervals. The data shows lower actual termination rates for members with less than 10 years of service and higher actual termination rates for members with 10 or more years of service, compared to the current assumptions. The proposed assumption of 5% falls within the 90% confidence interval for each service group, decreases the assumed rates of termination and increases the aggregate A/E ratio from 68% to 94%.

Table III-T2

Non-Contract Termination Rates									
Service	Exposures	Number of Terminations			Termination Rates			A/E Ratios	
		Actual	Current	Proposed	Actual	Current	Proposed	Current	Proposed
0 - 4	48	1	5	2	2%	10%	5%	21%	42%
5 - 9	60	3	6	3	5%	10%	5%	50%	100%
10 - 14	38	2	1	2	5%	3%	5%	175%	105%
15+	45	3	1	2	7%	3%	5%	222%	133%
Total	191	9	13	10	5%	7%	5%	68%	94%

Chart III-T2



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
TERMINATION RATES**

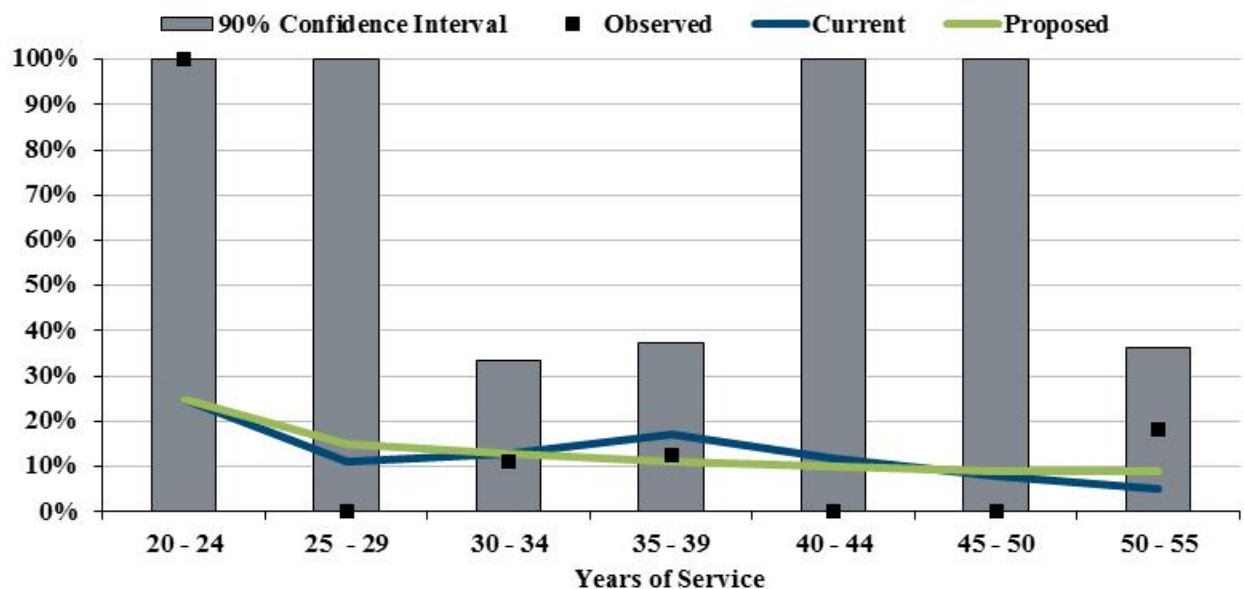
Table III-T3 shows the calculation of actual-to-expected ratios for Clerical members, and Chart III-T3 shows the information graphically along with the 90% confidence intervals. The Clerical group's termination rates are based on age rather than service. The data shows lower actual termination rates close to those expected under the current assumptions. We are proposing only slight modifications to the current assumptions since there is limited credibility due to the few exposures and actual terminations. The proposed assumptions decrease the assumed rates of termination and increases the aggregate A/E ratio from 108% to 110%.

Table III-T3

Clerical Termination Rates									
Age	Exposures	Number of Terminations			Termination Rates			A/E Ratios	
		Actual	Current	Proposed	Actual	Current	Proposed	Current	Proposed
20 - 24	1	1	0	0	100%	25%	25%	400%	400%
25 - 29	0	0	0	0	0%	11%	15%	0%	0%
30 - 34	9	1	1	1	11%	13%	13%	85%	85%
35 - 39	8	1	1	1	13%	17%	11%	74%	114%
40 - 44	7	0	1	1	0%	12%	10%	0%	0%
45 - 50	6	0	0	1	0%	8%	9%	0%	0%
50 - 55	11	2	1	1	18%	5%	9%	364%	202%
Total	42	5	5	5	12%	11%	11%	108%	110%

Chart III-T3

Clerical Termination Rates



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
DISABILITY RATES**

DISABILITY RATES

This section analyzes the incidence of disability by the age of the employee. All members are eligible for disability benefits after earning five years of credited service. There have been zero incidences of disability for Clerical and Non-Contract participants in this experience study and the two previous studies (the last 15 years). As such, the disability assumption continues to be zero for this group. For ATU and IBEW members, 0.50% of eligible participants are assumed to become disabled each year.

The amount of disability experience is very limited with only two disabilities occurring in the last five years for ATU and IBEW members and a total of six disabilities within the last 10 years. We have combined the disability experience from the last experience study with this study to perform our analysis.

Table III-D1 shows the calculation of actual-to-expected ratios for ATU and IBEW members by age grouping, and Chart III-D1 shows the information graphically along with the 90% confidence intervals. Where 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 rates were also only 0.1%. We are proposing to use the standard CalPERS Non-Industrial Disability for Public Agency Miscellaneous (blended 80% males and 20% females). The current assumption has an A/E ratio of 23% and the proposed assumption has an A/E ratio of 89%.

RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020

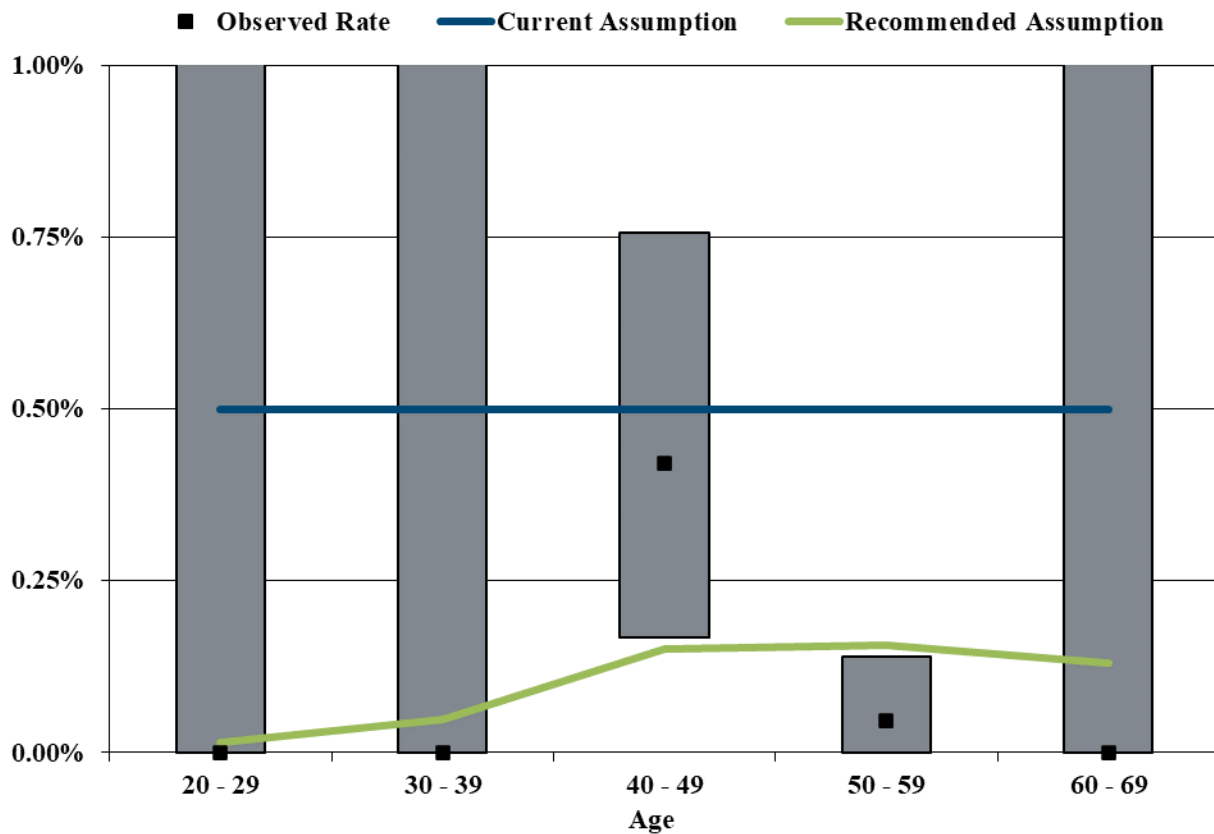
SECTION III - DEMOGRAPHIC ASSUMPTIONS
DISABILITY RATES

Table III-D1

ATU/IBEW Disability Incidence Rates						
Age	Exposures	Number of Disabilities			A/E Ratios	
		Actual	Current	Proposed	Current	Proposed
20 - 29	233	0	1	0	0%	0%
30 - 39	585	0	3	0	0%	0%
40 - 49	1,188	5	6	2	84%	278%
50 - 59	2,152	1	11	3	9%	30%
60 - 69	982	0	5	1	0%	0%
70+	12	0	0	0	0%	0%
Total	5,152	6	26	7	23%	89%

Chart III-D1

ATU/IBEW Disability Incidence



**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
MORTALITY RATES**

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 are used with modifications so that the aggregate experience matches the Plan's experience. Standard projection scales also serve as the basis for the assumption.

Cheiron has recently undertaken a study of mortality for public sector transit plans, specifically for their ATU members, and we have developed a standard set of mortality tables based on this study. In addition, the Society of Actuaries recently completed an extensive mortality study and new sets of mortality tables for both the private and public sector. We have used a combination of these tables as the basis for our analysis.

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.
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.

In general, we propose assumption changes when the actual-to-expected (A/E) ratio for the current assumption is significantly different than 100%. However, for those groups that do not have sufficient experience, such as the SDTC active members, we may propose replacement tables based on the experience of the groups that have more credible data. We note that the pre-retirement mortality assumptions have very little impact on the liability estimates, because of the very low rates of decrement and the declining active population since SDTC is mostly closed to new entrants.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
MORTALITY RATES**

In the prior study, we proposed the following assumptions:

Active members

- 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.

Healthy retirees and beneficiaries

- 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.

Disabled members

- Retired Pensioners (RP) 2014 Tables for Disabled Annuitants for males. Combined Healthy Retired Pensioners (RP) 2000 Table for females published by the Society of Actuaries, with future mortality improvements to 2010 using projection scale MP-2015.

Since the prior study, the Society of Actuaries' Retirement Plans Experience Committee (RPEC) has continued to release annual updates of the mortality improvement scales, with the newest version – Scale MP-2020 - reflecting five additional years of data (2013-2018) than was used in the development of Scale MP-2015. As a result, it reflects lower expected improvement rates in the near term than Scale MP-2015, based on the lower levels of mortality improvement observed during the five most recent years in the data. It also reflects modifications to the long term (or ultimate) levels of expected improvement at various ages.

MP-2020, similar to 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 also by calendar year – known as a two-dimensional approach to projecting mortality improvements. Scale MP-2020 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. RPEC suggests 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 two new sets of base mortality rate tables – the Pub-2010 and Pri-2012 Mortality Tables, which are based on a recent study of US defined benefit public and private plan mortality experience, respectively. We reviewed both of these sets of tables as potentially predictor of SDTC experience, as well as the proprietary ATU-specific mortality tables developed by Cheiron.

We are using the combined data from the last experience study (2010-2015) and this experience study (2015-2020) for our mortality experience analysis to improve the credibility of the data. SDTC's ATU and IBEW experience over the past ten years matches fairly well with the new

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
MORTALITY RATES**

Cheiron ATU rates, with the exception of that of the Clerical and Non-Contract group, for whom we are proposing the Pub-2010 General Retiree Mortality as the base table.

Even with the use of 10 years of data, the SDTC experience has very low credibility, based on standard statistical theory. We therefore propose no adjustments to the standard base tables.

Rather than weighting the experience based on the number of members living and dying, we have weighted the experience based on benefit size (and by compensation for active members). This approach has been recommended by RPEC, since members with larger benefits are expected to live longer, and a benefit-weighted approach helps avoid underestimating the liabilities.

Based on this information, we are proposing the following base mortality table assumptions:

Active members

- ATU and IBEW members: Cheiron ATU Non-Annuitant mortality, with generational improvements using Scale MP-2020 from 2016, the central year of Cheiron's ATU mortality study
- Clerical and Non-Contract members: 2010 Public General Employee, with generational improvements using Scale MP-2020 from 2010

Healthy retirees and beneficiaries

- ATU and IBEW members: Cheiron ATU Healthy-Annuitant mortality, with generational improvements using Scale MP-2020 from 2016, the central year of Cheiron's ATU mortality study
- Clerical and Non-Contract members: 2010 Public General Healthy Annuitant Amount Weighted, with generational improvements using Scale MP-2020 from 2010

Disabled members

- Cheiron ATU Disabled Annuitant mortality for ATU and IBEW members with generational improvements using Scale MP-2020 from 2016, the central year of Cheiron's ATU mortality study

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
MORTALITY RATES**

Table III-M1 below shows a summary of the data over the past ten years, as well as our proposed mortality rates across all statuses compared to current rates.

Table III-M1

Morality Analysis by Group								
Group	Exposures	Actual Deaths	Weighted Exposures	Weighted Deaths			A/E Ratios	
				Actual	Current	Proposed	Current	Proposed
All Annuitants	8,555	181	162,197,304	2,909,379	3,528,778	3,503,694	82%	83%
Healthy Annuitants and Beneficiaries								
ATU/IBEW Male	4,270	88	85,733,495	1,661,344	2,118,833	2,149,568	78%	77%
ATU/IBEW Female	1,713	29	20,539,725	256,756	309,915	377,805	83%	68%
Clerical/Non-Contract Male	883	16	30,816,097	476,993	555,775	416,205	86%	115%
Clerical/Non-Contract Female	789	19	16,442,101	218,272	254,574	213,397	86%	102%
Disabled Annuitants								
ATU/IBEW Male	523	22	5,727,318	259,629	246,442	259,758	105%	100%
ATU/IBEW Female	377	7	2,938,567	36,385	43,239	86,962	84%	42%
Active Members								
ATU/IBEW Male	4,218	3	213,674,920	196,347	892,425	374,684	22%	52%
ATU/IBEW Female	994	3	47,681,480	136,302	166,801	97,194	82%	140%
Clerical/Non-Contract Male	593	1	41,288,435	53,373	163,118	85,377	33%	63%
Clerical/Non-Contract Female	343	3	17,567,907	151,432	65,399	19,333	232%	783%

Since the Plan is relatively small and there are very few deaths over the 10-year period, the credibility of the data is low, between 5% and 29% for all groups. However, the proprietary ATU-specific mortality tables developed by Cheiron have much higher credibility, between 12% and 71%. While the experience of SDTC is not sufficiently credible to select and adjust a published table to fit its specific mortality experience, the combined data used to develop Cheiron's ATU table provides more information in the selection of a mortality table and allows for an adjustment using partial credibility than is possible for SDTC on its own.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION III - DEMOGRAPHIC ASSUMPTIONS
OTHER DEMOGRAPHIC ASSUMPTIONS**

PLAN ADMINISTRATIVE EXPENSES

An explicit assumption is made for Plan administrative expenses and is included in the annual cost calculations to develop the Actuarially Determined Contribution. The assumed administrative expenses for FY2020-2021 were approximately \$290,000 and increase annually by the assumed rate of inflation. Thus, the current assumption for FYE 2022 is \$297,000.

We have reviewed the actual administrative expenses for the past five years and adjusted each year with actual inflation from the San Diego-Carlsbad CPI-U. Table III-O1 shows the results of this analysis below. We propose a slight decrease in the administrative expense assumption from \$297,000 to \$282,000 for the July 1, 2021 actuarial valuation.

Table III-O1

Administrative Expense Assumption		
FYE	Actual Expenses	Inflation Adjusted to FYE 2020
2016	290,381	321,708
2017	234,128	251,157
2018	244,890	254,990
2019	252,584	255,882
2020	256,420	256,420
5-Year Average as of June 30, 2020		268,032
Proposed administrative expense assumption for FYE June 30, 2022		282,000

FAMILY COMPOSITION

The current assumption is that 100% of active SDTC active participants have beneficiaries eligible for pre-retirement death benefits and that males are four years older than their spouses and females are four years younger than their spouses. This is consistent with the assumptions used by other systems. Since we have limited spouse data, we propose continuing the use of the same assumptions, for both pre-retirement deaths and for valuing survivor benefits for current retirees with missing spouse dates of birth.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

**SECTION IV – AMORTIZATION POLICY FOR THE UNFUNDED
ACTUARIAL LIABILITY**

The total Plan cost on an annual basis, the Actuarially Determined Contribution (ADC), is the sum of the normal cost, assumed administrative expenses, and the amortization of the Unfunded Actuarial Liability (UAL). The UAL payment is currently a series of layers each amortized as a level dollar amount over a closed period. The existing UAL as of July 1, 2012, is being amortized in level dollar payments over a 25-year period and will be fully paid as of June 30, 2037.

Subsequent changes in the UAL due to changes in the actuarial assumptions or methods and plan amendments are amortized in level dollar payments over a separate period such that the amortization period ends on June 30, 2037, consistent with the amortization of the remaining July 1, 2012 UAL.

Currently, changes in the UAL due to actuarial experience gains and losses are amortized over separate closed 15-year periods in level dollar payments. The amortization of future experience gains and losses will soon (starting with the July 1, 2023 actuarial valuation) extend beyond the initial 25-year period ending June 30, 2037. In order for SDTC to achieve its goal of full funding by 2037, we propose aligning the amortization periods of future experience gains and losses to a maximum of 15-years and no longer than the period ending June 30, 2037.

As the targeted full funding date of June 30, 2037 approaches, changes to the amortization policy can be made at the MTS Board's discretion to mitigate volatility or unsustainable increases in the UAL payment as a result of potentially adverse experience.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

APPENDIX A - SUMMARY OF CURRENT ASSUMPTIONS

All of the following economic and demographic assumptions were based on the experience study covering the period from July 1, 2010, through June 30, 2015, that was adopted at the Budget Development Meeting in April 2016, with the exception of the rate of return assumption. The rationale for all the assumptions can also be found in the experience study report dated April 2016. The MTS Board voted to decrease the expected rate of return at its April 2019 meeting from 7.00% to 6.75%.

1. Rate of Return

The annual rate of return on all Plan assets is assumed to be 6.75% net of investment expenses.

2. Cost-of Living

The cost-of-living as measure 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. 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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

APPENDIX A - SUMMARY OF CURRENT ASSUMPTIONS

5. 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 using male's rates for both male and female members with generational improvements from the base year 2010 using Scale MP-2015.

6. 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 from the base year 2010 using Scale MP-2015.

7. 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, with future mortality improvements to 2010, the midpoint of the experience used for the mortality study, using projection scale MP-2015.

8. 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.

9. 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.

10. Plan Expenses

Plan administrative expenses of \$289,801 are included in the Actuarially Determined Contribution and increase each year with the assumed rate of inflation.

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
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

APPENDIX A - SUMMARY OF CURRENT ASSUMPTIONS

12. Service Retirement

Rates of service retirement among Participants eligible to retire are given by 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%

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

13. 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 are 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%

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%

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

APPENDIX B - SUMMARY OF PROPOSED ASSUMPTIONS

The proposed assumptions have not yet been adopted by the Board. The demographic assumptions are based on an experience study covering the period from July 1, 2015, through June 30, 2020, with the exception of the mortality assumption that is based on experience from July 1, 2010, through June 30, 2020.

1. Rate of Return

The annual rate of return on all Plan assets is assumed to be 6.75% 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. 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.

**RETIREMENT PLANS OF SAN DIEGO TRANSIT CORPORATION
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

APPENDIX B - SUMMARY OF PROPOSED ASSUMPTIONS

5. Active Participant Mortality

- ATU and IBEW members: Cheiron ATU Non-Annuitant mortality, with generational improvements using Scale MP-2020 from 2016
- Clerical and Non-Contract members: 2010 Public General Employee, with generational improvements using Scale MP-2020 from 2010

6. Healthy Inactive Participant and Beneficiary Mortality

- ATU and IBEW members: Cheiron ATU Healthy-Annuitant mortality, with generational improvements using Scale MP-2020 from 2016
- Clerical and Non-Contract members: 2010 Public General Healthy Annuitant Amount Weighted, with generational improvements using Scale MP-2020 from 2010

7. Disabled Participant Mortality

Cheiron ATU Disabled Annuitant mortality for ATU and IBEW members with generational improvements using Scale MP-2020 from 2016.

8. Mortality Improvement

For all participants, mortality is assumed to improve in future years in accordance with the MP-2020 generational improvement tables.

9. Disability

Among ATU Drivers and IBEW Mechanics uses the standard CalPERS PAMODU table, with sample rates below. Disabled Participants are assumed not to return to active service. No disability is assumed for Clerical and Non-Contract Participants.

Disability	
Age	Rate
25	0.015%
30	0.020%
35	0.057%
40	0.130%
45	0.198%
50	0.217%
55	0.211%
60	0.200%
65	0.187%
70	0.164%
75+	0.136%

10. Plan Expenses

Plan administrative expenses of \$282,000, are included in the Actuarially Determined Contribution, and increase each year with the assumed rate of inflation.

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
ACTUARIAL EXPERIENCE STUDY AS OF JUNE 30, 2020**

APPENDIX B - SUMMARY OF PROPOSED ASSUMPTIONS

12. Service Retirement

Rates of service retirement among Participants eligible to retire are given by the following table:

Age	ATU Drivers	IBEW Mechanics	Clerical/Non Contract
52 ¹	0%	0%	0%
53-54	0%	0%	7.5%
55	10%	5%	7.5%
56-59	7.5%	5%	10%
60-61	10%	10%	10%
62	15%	10%	30%
63	15%	10%	25%
64	20%	15%	25%
65-66	40%	45%	25%
67-69	25%	20%	25%
70 and older	100%	100%	100%

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

13. 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 are assumed to occur in accordance with the service-based rates shown in the following table:

Service	ATU Driver	IBEW Mechanic	Non-Contract
0	10.0%	10.0%	5.0%
1-6	4.0%	4.0%	5.0%
7+	3.0%	3.0%	5.0%

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	15.0%
30-34	13.0%
35-39	11.0%
40-44	10.0%
45-49	9.0%
50 and older	9.0%



Classic Values, Innovative Advice

Retirement Plans of San Diego Transit Corporation



Actuarial Experience Study Results

July 1, 2015 through June 30, 2020

October 15, 2021

Alice I. Alsberghe, ASA, MAAA, EA

Topics for Discussion



- Overview
- Cost Impact
- Economic Assumptions
 - Price Inflation & Wage Inflation
 - Discount Rate (Expected Investment Return)
- Mortality Assumption
- Other Assumptions
- Projected Financial / Funding Impact
- Staff Recommendation

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 report contains additional information not covered in this presentation
- The actuarial assumptions adopted based on this experience study will be used for the 2021 and subsequent actuarial valuations



- Key findings and recommendations
 - Future expectations for investment returns are considerably lower
 - We propose reducing the discount rate assumption (expected investment return) from 6.75% to 6.00%, which would increase the total actuarially determined contribution
 - Mortality experience has been fairly consistent with the current assumptions, but future mortality improvements have decreased since the last study
 - The aggregate impact of all other recommended assumptions changes, including mortality, will slightly reduce the total actuarially determined contribution



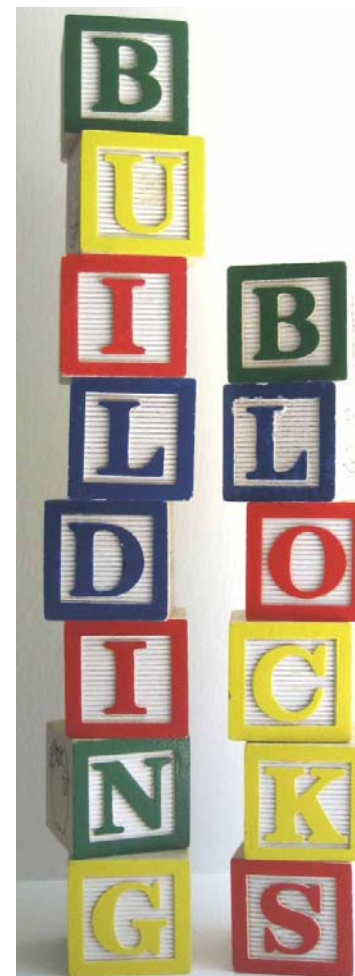
Contribution Impact of Individual Assumption Changes

Mortality Changes	\$ (730,000)
Retirement Changes	(302,000)
Termination Changes	29,000
Disability Changes	38,000
Administrative Expenses	<u>(8,000)</u>
All Demographic Assumption Changes	\$ (973,000)
Inflation: Reduction from 2.75% to 2.50%	\$ (143,000)
Assumed Investment Return:	
Reduction from 6.75% to 6.00%	<u>\$ 2,170,000</u>
Total Estimated Change in Contribution	\$ 1,054,000

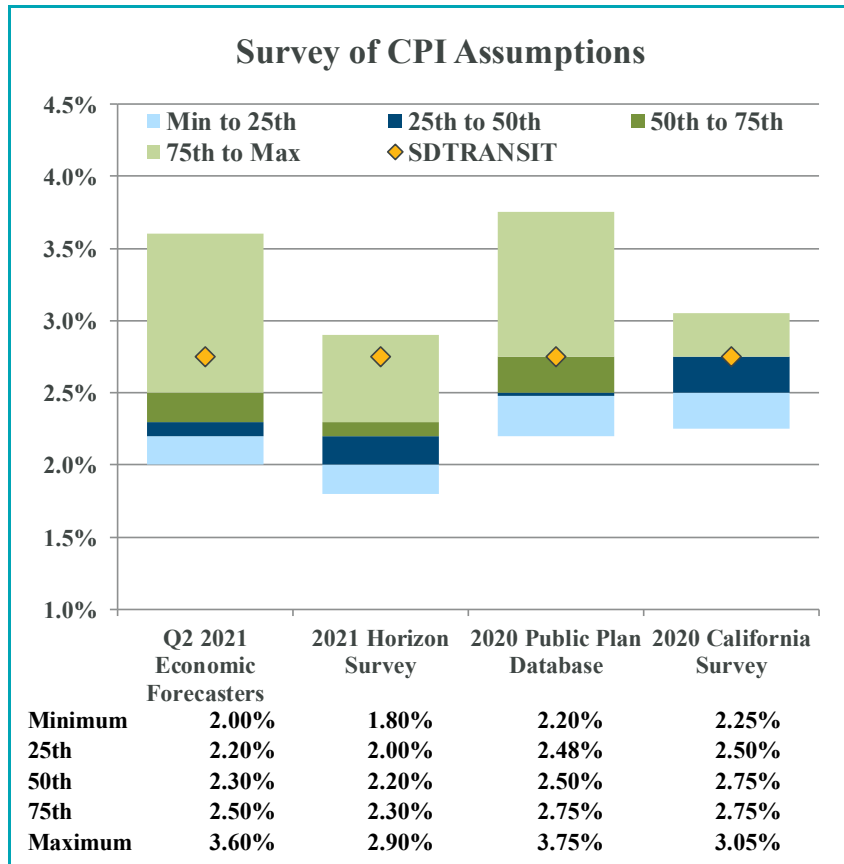


Building block approach

- Price 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
 - 6.75% Expected Nominal Rate of Return
 - 2.75% Inflation
 - 4.00% Real Rate of Return



Price Inflation



- Inflation expectations over the **next 10 years**
 - Professional economic forecasters
 - Investment Consultants
 - US Public Pension Plans
 - California Public Pension Plans
- 2.75% is the most common assumption for CA plans
- SDTC’s investment consultant, RVK, uses long-term inflation assumption of 2.00%
- Propose reducing price inflation assumption from 2.75% to 2.50%

Discount Rate

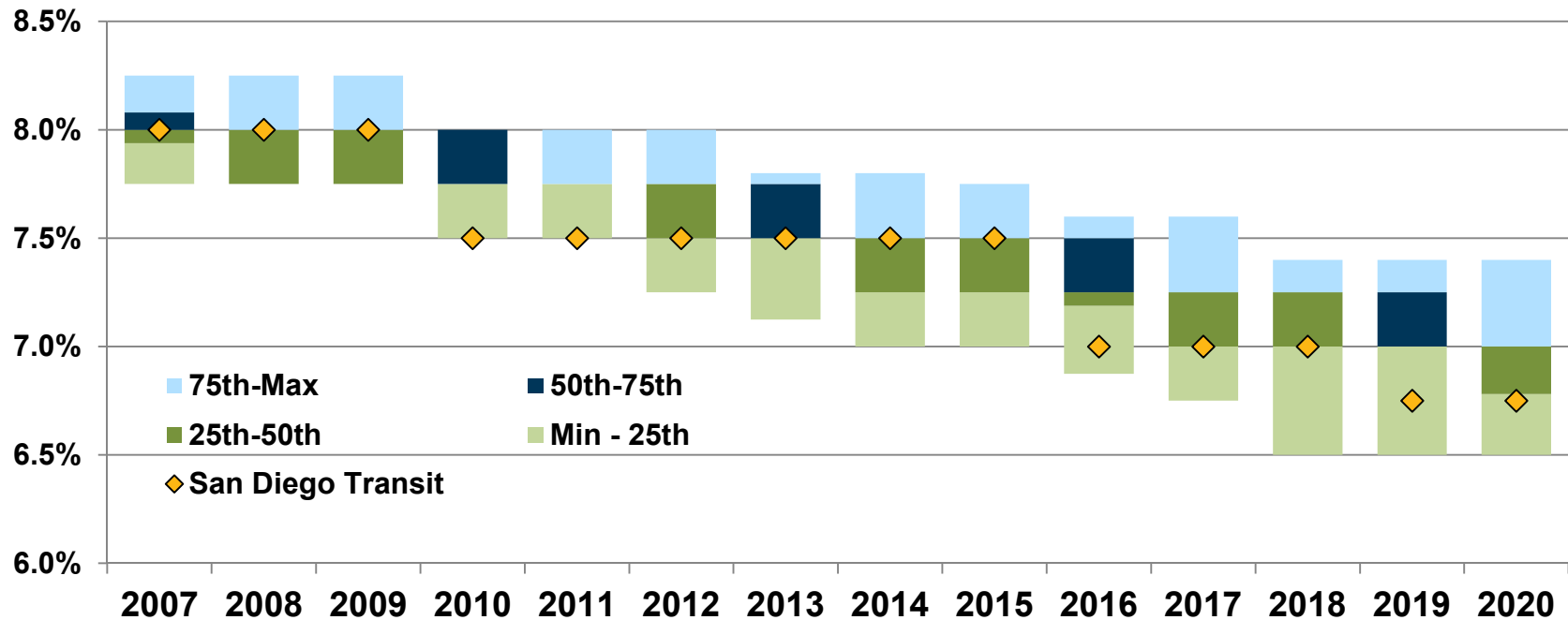


- Most powerful single assumption
 - Lower discount rate (expected return) → Higher expected contributions
 - Over time, actual contributions will depend on actual investment returns (not expected)
 - Current discount rate is 6.75%
- Context for selecting the discount rate
 - Historical experience
 - Industry trends
- Primary factors considered in selecting the discount rate
 - Expectations for the future
 - Board's risk preference

Discount Rate Trends - California



Discount Rate Trends
Cheiron Survey of California Systems



Investment Return Expectations



San Diego Transit Corporation Target Portfolio Return Expectations

Source	Nominal	Inflation	Real
RVK (10-Year)	4.45%	2.00%	2.45%
Horizon Survey (10-Year)	4.95%	2.13%	2.82%
Horizon Survey (20-year)	<u>5.68%</u>	<u>2.24%</u>	<u>3.44%</u>
Average	5.03%	2.12%	2.90%
Current Assumption	6.75%	2.75%	4.00%

Proposed Assumption

6.00% Nominal Return = 2.50% Inflation + 3.50% Real Return

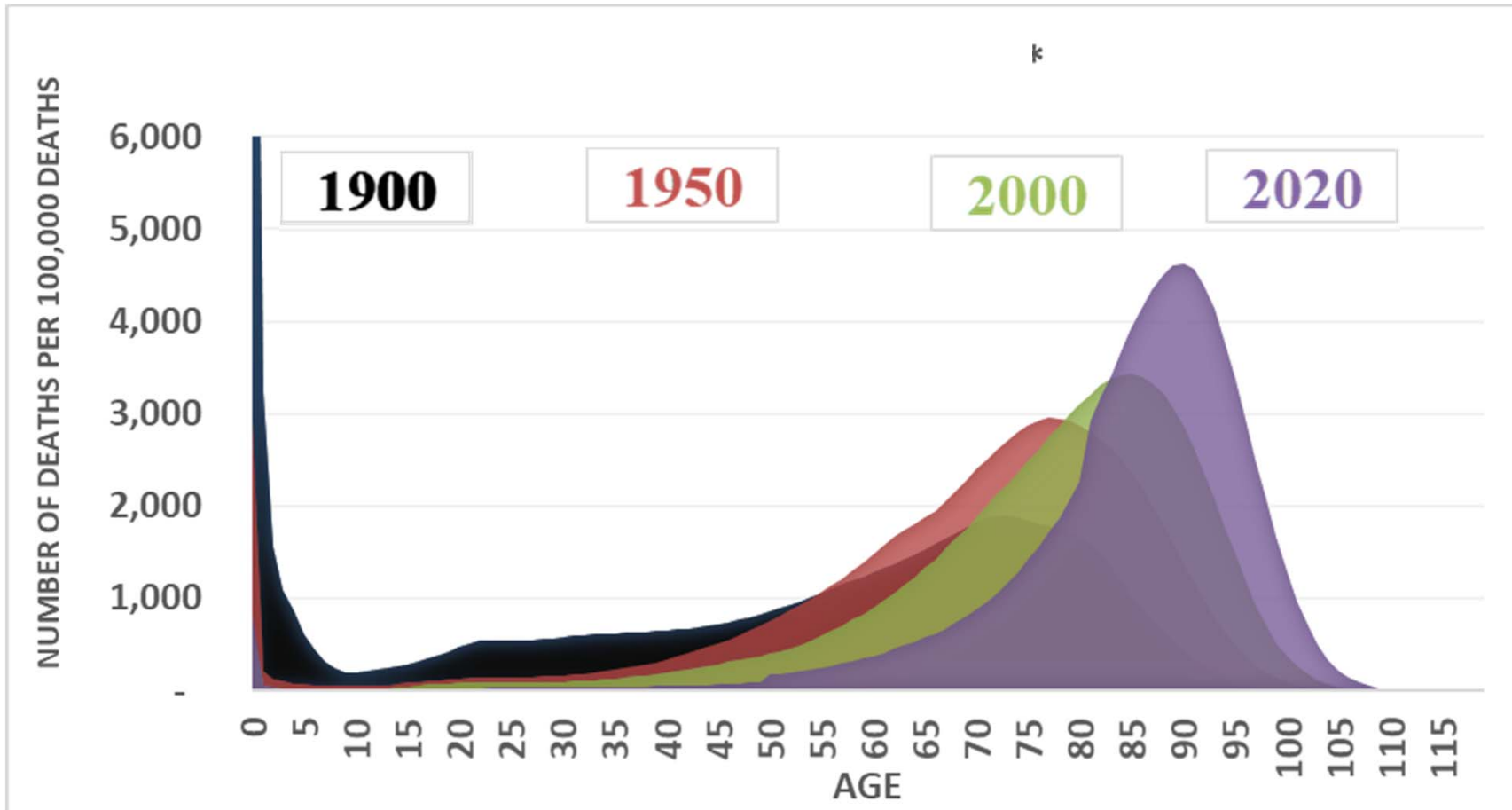


Two Part Assumption:

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



Mortality Assumption



**1900, 1950, 2000 from Social Security tables on the general US population, 2020 is estimated from latest Society of Actuaries tables on the pension participant population*

Mortality Assumption



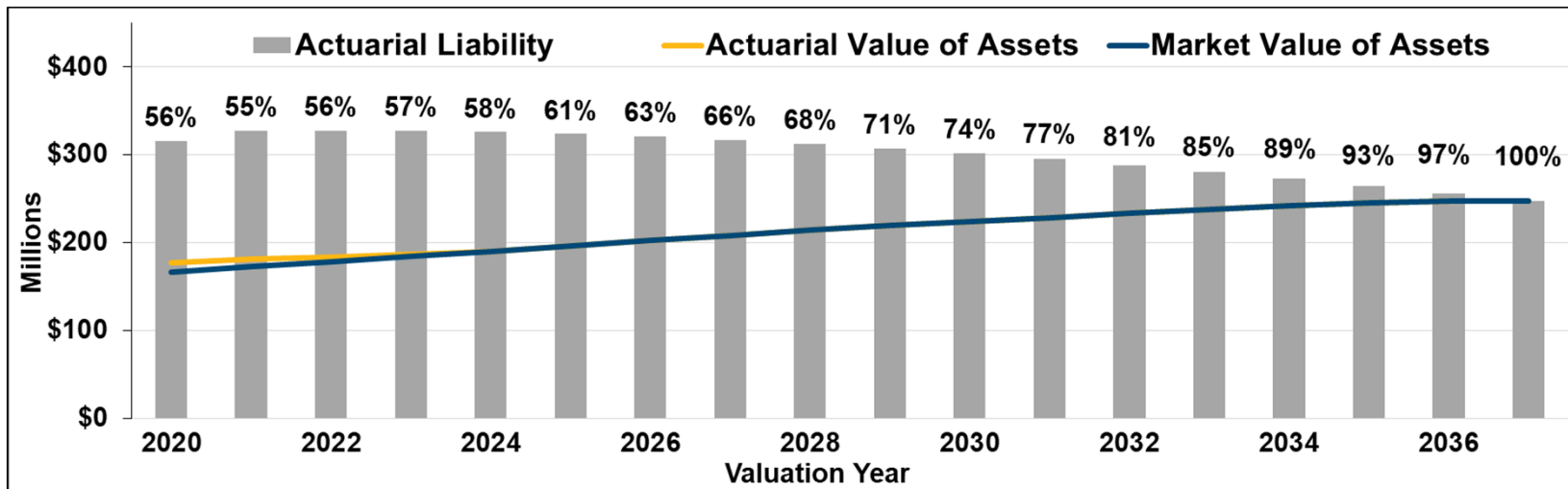
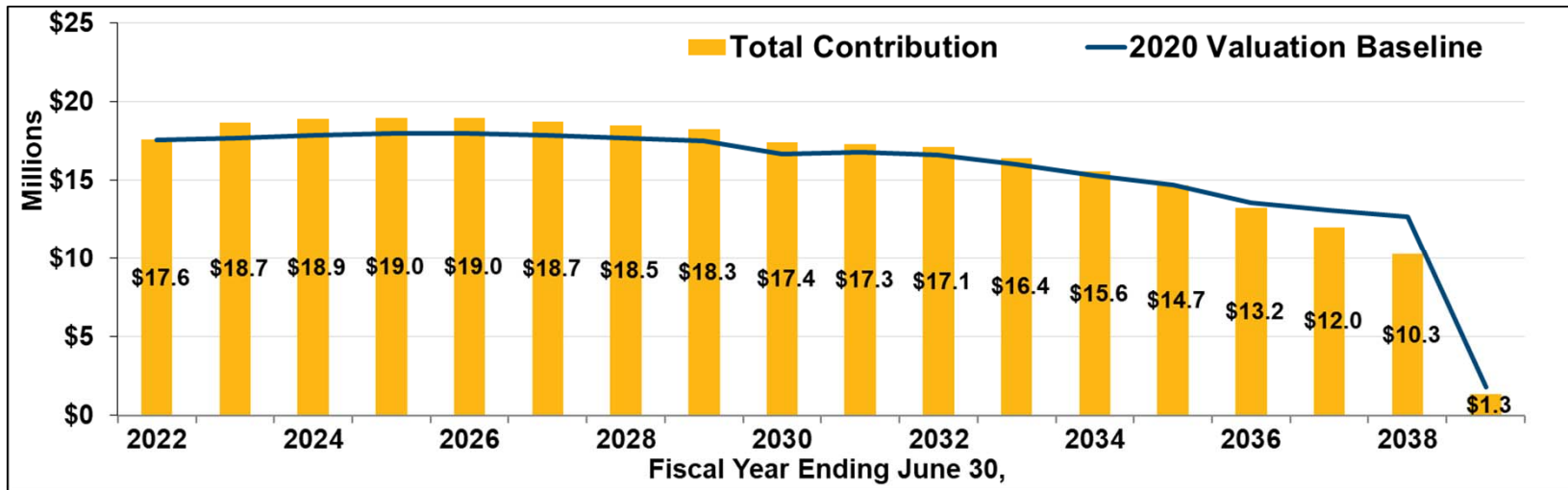
- Cheiron performed and published a mortality experience study covering Cheiron's ATU members, including SDTC experience
 - Propose Cheiron ATU mortality table as base table for ATU and IBEW members, given similar experience
- For Clerical and Non-Contract members, propose 2010 Public General Employee and Healthy Annuitant amount weighted base tables
- Mortality improvement has been less than expected
 - Propose most recent MP-2020 mortality projection scale which has lower future improvement rates than current MP-2015 projection scale

Other Assumptions



- Recommendation
 - Retirement
 - Propose to decrease the expected rates of retirement
 - Termination
 - Propose slight modifications to the rates of termination
 - Disability
 - Propose lower rates for ATU and IBEW members
 - Merit Pay Increases
 - No proposed changes
 - Administrative Expenses
 - Propose a decrease from \$297,000 to \$282,000, with annual increases equal to assumed inflation

Projected Financial / Funding Impact



Note: Return in FY2021 was 21.53% and updated projections incorporating this return will be reported with the FY21 Actuarial Valuation report

Staff Recommendation

That the San Diego Metropolitan Transit System (MTS) Budget Development Committee forward a recommendation to the Board of Directors to:

1. adopt the Actuarial Experience Study of the SDTC's Employee Retirement Plan;
2. approve the revised actuarial assumptions.

Reliance



The purpose of this presentation is to show the findings and the proposed actuarial assumption changes from the 2021 Actuarial Experience Study Report for the Retirement Plans of San Diego Transit Corporation.

In preparing this presentation, we relied on information (some oral and some written) supplied by the 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.

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

Deterministic projections in this presentation were developed using P-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the System. P-scan uses standard roll-forward techniques that implicitly assume a stable active population.

Future results may differ significantly from the current results presented herein due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in Plan provisions or applicable law. The future outcomes become increasingly uncertain over time, and therefore the general trends and not the absolute values should be considered in the review of these projections.

This presentation has been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable law and regulations. 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 Retirement Board and MTS Board for the purposes described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

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

Alice I. Alsberghe, ASA, MAAA, EA
Consulting Actuary



Classic Values, Innovative Advice

October 15, 2021



Appendix – Proposed Assumption Changes

Proposed Assumption Changes



- Economic Assumptions
 - Discount Rate reduced from 6.75% to 6.00%
 - Price Inflation reduced from 2.75% to 2.50%
 - Wage Inflation reduced from 2.75% to 2.50%

Proposed Assumption Changes



Base Mortality Tables

Morality Analysis by Group								
Group	Exposures	Actual Deaths	Weighted Exposures	Weighted Deaths			Actual/Expected Ratios	
				Actual	Current	Proposed	Current	Proposed
All Annuitants	8,555	181	162,197,304	2,909,379	3,528,778	3,503,694	82%	83%
Healthy Annuitants and Beneficiaries								
ATU/IBEW Male	4,270	88	85,733,495	1,661,344	2,118,833	2,149,568	78%	77%
ATU/IBEW Female	1,713	29	20,539,725	256,756	309,915	377,805	83%	68%
Clerical/Non-Contract Male	883	16	30,816,097	476,993	555,775	416,205	86%	115%
Clerical/Non-Contract Female	789	19	16,442,101	218,272	254,574	213,397	86%	102%
Disabled Annuitants								
ATU/IBEW Male	523	22	5,727,318	259,629	246,442	259,758	105%	100%
ATU/IBEW Female	377	7	2,938,567	36,385	43,239	86,962	84%	42%
Active Memebers								
ATU/IBEW Male	4,218	3	213,674,920	196,347	892,425	374,684	22%	52%
ATU/IBEW Female	994	3	47,681,480	136,302	166,801	97,194	82%	140%
Clerical/Non-Contract Male	593	1	41,288,435	53,373	163,118	85,377	33%	63%
Clerical/Non-Contract Female	343	3	17,567,907	151,432	65,399	19,333	232%	783%

In aggregate, the proposed mortality tables slightly decrease the expected mortality rates.

Proposed Assumption Changes



Healthy Annuitant Male Mortality Rates

Mortality Rates at Sample Ages for Male Healthy Annuitants			
Age	Current	Proposed	
		ATU & IBEW	Clerical & Non-Contract
50	0.23%	0.68%	0.30%
60	0.72%	1.12%	0.62%
70	2.07%	1.98%	1.53%
80	5.71%	5.60%	4.77%
90	16.08%	15.71%	14.67%
100	33.08%	31.86%	32.61%

- Proposed mortality rates for younger male annuitants are higher than the current assumptions.
- Proposed mortality rates for older male annuitants are lower than the current assumptions.

Proposed Assumption Changes



Healthy Annuitant Female Mortality Rates

Mortality Rates at Sample Ages for Female Healthy Annuitants			
Age	Current	Proposed	
		ATU & IBEW	Clerical & Non-Contract
50	0.17%	0.34%	0.22%
60	0.42%	0.76%	0.38%
70	1.38%	1.63%	1.06%
80	4.00%	4.43%	3.36%
90	12.04%	13.41%	11.49%
100	22.85%	29.51%	28.16%

- Proposed mortality rates for female ATU Driver & IBEW annuitants are higher than the current assumptions.
- Proposed mortality rates for female Clerical & Non-Contract annuitants are generally lower than the current assumptions.

Proposed Assumption Changes



Disabled Annuitant Mortality Rates

Mortality Rates at Sample Ages for Male Disabled Annuitants		
Age	Current	Proposed
50	2.04%	2.12%
60	2.66%	2.80%
70	4.03%	4.20%
80	7.66%	8.16%
90	17.30%	18.62%
100	32.67%	33.90%

Mortality Rates at Sample Ages for Female Disabled Annuitants		
Age	Current	Proposed
50	0.17%	1.48%
60	0.42%	2.06%
70	1.38%	2.72%
80	4.00%	5.90%
90	12.04%	13.58%
100	22.85%	28.15%

Proposed mortality rates for male and female disabled annuitants are higher than the current assumptions.

Proposed Assumption Changes



Retirement Rates

Retirement Rates for ATU Drivers		
Age	Current	Proposed
55	10.0%	10.0%
56-59	10.0%	7.5%
60-61	15.0%	10.0%
62-63	25.0%	15.0%
64	25.0%	20.0%
65	40.0%	40.0%
66	30.0%	40.0%
67-69	30.0%	25.0%
70+	100.0%	100.0%

Retirement Rates for IBEW Mechanics		
Age	Current	Proposed
55-59	5.0%	5.0%
60-61	10.0%	10.0%
62-63	20.0%	10.0%
64	20.0%	15.0%
65	40.0%	45.0%
66	30.0%	45.0%
67-69	30.0%	20.0%
70+	100.0%	100.0%

Retirement Rates for Clerical/Non-Contract		
Age	Current	Proposed
53-56	10.0%	7.5%
57-58	15.0%	7.5%
59-61	15.0%	10.0%
62	40.0%	30.0%
63-69	30.0%	25.0%
70+	100.0%	100.0%

Proposed retirement rates are overall lower than current expected rates of retirement.

Proposed Assumption Changes



Termination Rates

Termination Rates for IBEW Mechanics & ATU Drivers		
Service	Current	Proposed
0	25.0%	10.0%
1	25.0%	4.0%
2	12.0%	4.0%
3	12.0%	4.0%
4-6	5.0%	4.0%
7-9	5.0%	3.0%
10+	2.0%	3.0%

Termination Rates for Clerical Employees		
Service	Current	Proposed
20-24	25.0%	25.0%
25-29	11.0%	15.0%
30-34	13.0%	13.0%
35-39	17.0%	11.0%
40-44	12.0%	10.0%
45-49	8.0%	9.0%
50+	5.0%	9.0%

Termination Rates for Non Contract Employees		
Service	Current	Proposed
0-9	10.0%	5.0%
10+	3.0%	5.0%

Proposed termination rates are adjusted up or down depending on years of service to reflect termination experience.



**Metropolitan
Transit
System**

Agenda Item No. 7

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BUDGET DEVELOPMENT COMMITTEE

October 15, 2021

SUBJECT:

SAN DIEGO TRANSIT CORPORATION (SDTC) EMPLOYEE RETIREMENT PLAN
INVESTMENTS IN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) FUNDS
(JEREMY MILLER OF RVK INC. AND LARRY MARINESI)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Budget Development Committee (BDC) forward a recommendation to the SDTC Employee Retirement Plan Investment Committee to:

- 1) Research quality ESG Impact firms and strategies and identify appropriate fund to include in portfolio;
- 2) Fully liquidate the Vanguard Energy Index in calendar year 2022 (with estimated proceeds ranging from \$2M - \$3M) and transfer proceeds to newly acquired ESG Impact fund; and
- 3) Monitor acquired ESG fund performance results for next fiscal year and report back to MTS BDC / Board on results and impact.

Budget Impact

None at this time.

DISCUSSION:

The SDTC Employee Retirement Plan (Plan) has a pool of investments that fund the payments to the Plan's current and future retirees. This investment pool is currently around \$200 million and invests in a number of active and passive investment vehicles.

ESG investing is the consideration of environmental, social, and governance factors in the investment decision-making process. Staff will present background information to define the factors that make up ESG Investing, as well as define the level of ESG engagement by firms and investment vehicles that exists in the marketplace. Staff will also review the current level of



ESG engagement from the firms and investment vehicles currently within the Plan's investment pool.

/s/ Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com



October 15, 2021

ESG Review

Prepared for MTS Budget Development Committee



What is ESG Investing?

- “ESG Investing” is the consideration of **environmental**, **social**, and **governance** factors in the investment decision-making process.
- Although there are nuances for each, ESG is often comparable with socially responsible investing, sustainable investing, impact investing, and positive/negative screening, etc.
- ESG factors range across many topics such as climate change, data security, political contributions, use of unions in workforce, independent boards, etc.
- Post-COVID, ESG factors have broadened to include diversity, equity and inclusion, misinformation, childcare priorities, protection of front-line workers, disaster readiness

Environmental

- Climate Change
- Natural Resources
- Pollution & Waste
- Environmental Opportunities

Social

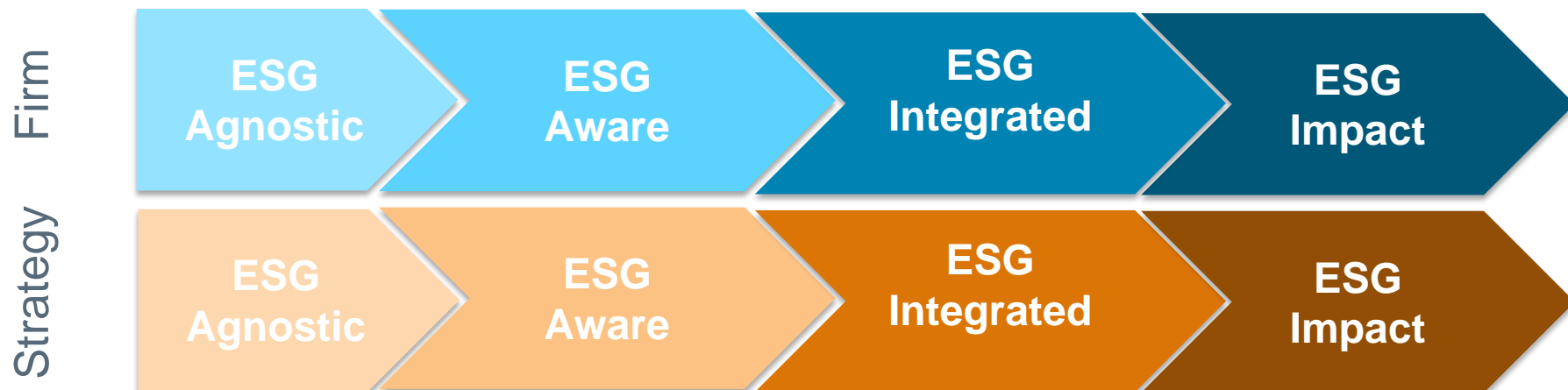
- Human Capital
- Product Liability
- Stakeholder Opposition
- Labor Standards
- Privacy and Data Security

Governance

- Corporate Governance
- Business Ethics and Fraud
- Board Diversity

RVK Levels of Manager ESG Factor Inclusion

- Almost all asset managers, regardless of asset class, have evaluated the potential benefit of incorporating ESG factors into their research process
- Not every manager incorporates the same data in the same way
- And not every manager has a line-up of full impact strategies, however integration can be sophisticated and part of the manager's research process that their existing strategies have become fully ESG Integrated.
- Through RVK's evaluations of our clients' exposures, we have found most strategies fit into one of four levels of ESG integration



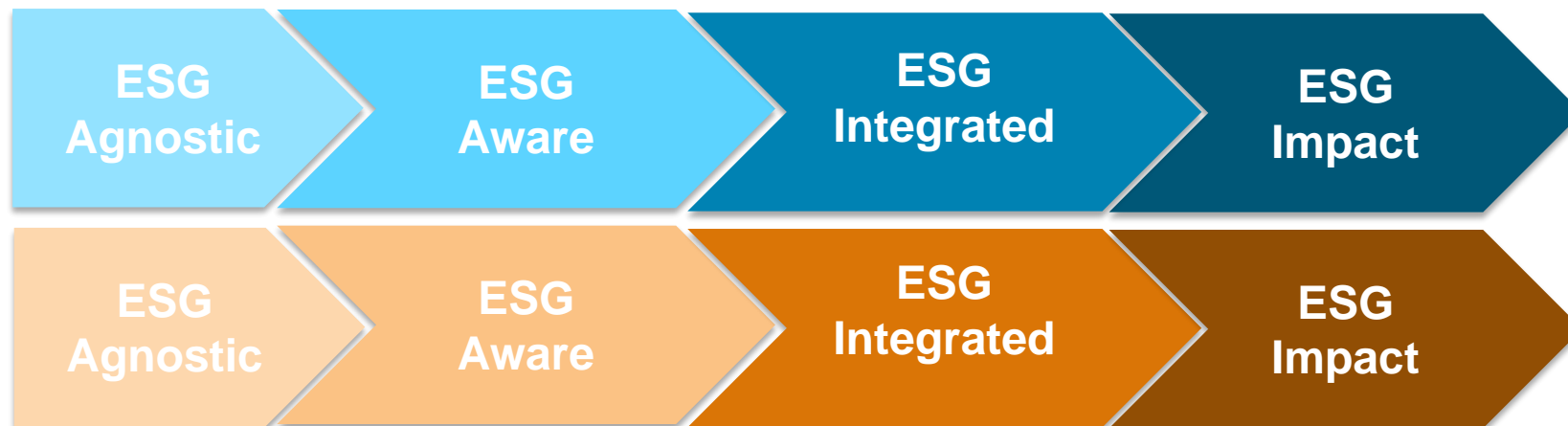
Investment Manager ESG Factor Inclusion

ESG Agnostic: Very little or no usage of ESG data or scoring, and ESG data is not a strong or consistent input to the investment process.

ESG Aware: Third-party ESG data may be used and firm generally acknowledges that ESG data can be helpful in avoiding risks in some sectors, but no incentive for incorporating the data in the investment process.

ESG Integrated: Third-party ESG data is used for enhancing an investment team's understanding of assets and is a regular part of the portfolio construction process.

ESG Impact: Full "dual mandate" ESG strategies where outperformance and improved social and environmental outcomes are the top priorities, teams do own ESG analysis and scoring in addition to incorporating third-party ESG data.



San Diego Transit Corp ESG Review

Equity and Fixed Income Investment Manager Summary

FIRM



	<ul style="list-style-type: none"> Westwood Vanguard BNYM (The Boston Co.) 	<ul style="list-style-type: none"> Analytic Investors (WFAM) PIMCO (Research Affiliates) MFS GMO 	
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STRATEGY



<ul style="list-style-type: none"> Vanguard strategies Analytic US Low Vol PIMCO/RAE strategies 	<ul style="list-style-type: none"> Westwood All Cap Value BNYM PE US SMID Cap Growth GMO Benchmark Free Allocation 	<ul style="list-style-type: none"> MFS International Equity Growth 	
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Current Portfolio Summary / Strategy – BDC Input

- Pension fund has a majority of firms and strategies that are ESG Aware or Integrated.
- Pursuing of active or passive ESG Impact funds to incorporate within the combined portfolio to further blend the ESG rating higher is natural next step
- Staff recommendation:
 - Research quality ESG Impact firms and strategies and identify appropriate fund to include in portfolio
 - Fully liquidate the Vanguard Energy Index in calendar year 2022 (with estimated proceeds ranging from \$2M - \$3M) and transfer proceeds to newly acquired ESG Impact fund.
 - Monitor acquired ESG fund performance results for next fiscal year and report back to MTS BDC / Board on results and impact.



October 15, 2021

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