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NEW YORK CITY TEACHERS' RETIREMENT SYSTEM
REGULAR BOARD MEETING
Held on Thursday, June 21, 2018
at
55 Water Street
New York, New York

ATTENDEES:

- JOHN ADLER, Chairperson, Trustee, Mayor's Office
- PATRICIA REILLY, Executive Director, TRS
- DEBRA PENNY, Trustee, TRS
- DAVID KAZANSKY, Trustee, TRS
- THOMAS BROWN, Trustee, TRS
- JOHN DORSA, Trustee, Comptroller's Office
- RAYMOND ORLANDO, Trustee
- LINDSAY, Trustee
- THADDEUS MCTIGUE, TRS
- ANDREW BRADFORD, TRS
- VALERIE BUDZIK, TRS
- RENEE PEARCE, TRS
- PAUL RAUCCI, TRS
- LIZ SANCHEZ, TRS
- SUSAN STANG, TRS
- BOB GREY, TRS
- KAVITA KANWAR
- ROBERT BETHELMY

- 1 ELLEN DeLEO
- 2 ANNETTE HANRAHAN
- 3 CARMELA CRIVELLI
- 4 NATARAJAN KRISHNAMOORTHY
- 5 SHERRY CHAN, Chief Actuary
- 6 BRYAN BERGE, Corporation Counsel
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P R O C E E D I N G S

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(Time noted: 3:45 p.m.)

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CHAIRPERSON ADLER: Welcome to the
Teachers' Retirement System Board Meeting of June
21, 2018.

7

Patricia, will you call the roll?

8

MS. REILLY: John Adler?

9

CHAIRPERSON ADLER: Here.

10

MS. REILLY: Debra Penny?

11

MS. PENNY: Present.

12

MS. REILLY: David Kazansky?

13

MR. KAZANSKY: Here.

14

MS. REILLY: Thomas Brown?

15

MR. BROWN: Here.

16

MS. REILLY: John Dorsa?

17

MR. DORSA: Here.

18

MS. REILLY: Raymond Orlando?

19

20

MR. ORLANDO: Here; sadly, for the last
time.

21

MS. REILLY: We do have a quorum.

22

CHAIRPERSON ADLER: Thank you very much.

23

24

I'll turn it over to Patricia to walk us
through the agenda.

25

MS. REILLY: Next on the agenda is an

1 update from TRS on TRS operations from Kavita
2 Kanwar.

3 MS. KANWAR: As of June 19, TRS has
4 received 953 retirement applications that are
5 effective July 2018, and 51 retirement
6 applications effective August 2018; for a total
7 of 1,014 retirements thus far.

8 This number is slightly higher than the
9 998 summer retirements that we received last year
10 at this time.

11 The latest issue of TRS's member
12 newsletter has been mailed to members and are
13 available on the TRS website.

14 Benefits report was mailed to
15 approximately 384,000 retirement members. And in
16 service news was mailed to 125,000 non-retired
17 members. The newsletter is published twice each
18 year, in the spring and the fall.

19 MS. REILLY: Thank you.

20 Next on the agenda is a report from the
21 actuary.

22 MS. CHAN: Thank you.

23 The first item is the fiscal note report.
24 There were two fiscal notes issued last month.
25 And one of them had to do with COLA. And the

1 proposed legislation was to increase the cap from
2 3 percent to 5 percent, and so the COLA could
3 exceed 3 percent.

4 And this was an interesting fiscal note
5 to price. I spoke about it last year. And in
6 the past ten years, the average CPI had been 1.6
7 percent.

8 So, because the COLA is 50 percent of the
9 CPI, the CPI had to have been above 6 percent for
10 this proposed legislation to come into effect.
11 And the last time the CPI was above 6 percent was
12 in the early 80s, so we couldn't necessarily look
13 at past data to price this.

14 So what we did was, we looked at a one
15 year shock; assuming that the CPI went up to 8
16 percent, so the COLA would be, half of that would
17 4 percent, above the 3 percent. What is that
18 delta between a 1 percent change in COLA?

19 And for Teachers, it ended up being \$15.5
20 million in contributions just for that one year.
21 COLA is very expensive, so a 1 percent shock
22 produced that amount.

23 The second fiscal note was changing the
24 World Trade Center disability to 75 percent for
25 members, teachers currently not receiving

1 disability. And, based on the data we got, an
2 increase in first year employer contributions
3 would be approximately \$62,000. That's just
4 because not a lot of people currently have that
5 disability, and the ones that do are pretty close
6 to that 75 percent already.

7 The next item on my agenda is the Tier 3,
8 4 & 6 loan insurance rates. As you might know,
9 members can take a loan out on their
10 contributions. And if they pass away while the
11 loan is still outstanding, then their
12 beneficiary, the benefit that would go to the
13 beneficiary, would be reduced by the loan amount.

14 But this insurance, when it's purchased,
15 would basically replenish the outstanding balance
16 so the beneficiary would not be hurt.

17 This a rate that's tacked onto the
18 discount rate when calculating the payments to
19 repay the loan. And since inception in 1991,
20 this rate has been at 0.2 percent.

21 The analysis passed out to the Board, the
22 outstanding balance right now, based on the cash
23 flow in, the premiums that come in, the payments
24 that go out -- the balance that remains is
25 approximately \$1.5 million right now.

1 It's a good reserve, and it is
2 recommended to be kept at 0.2 percent as the loan
3 insurance premium rate. It will be reviewed more
4 extensively within the next year alongside the
5 TDA. This rate is only for QPP.

6 Are there any questions?

7 (No response.)

8 There's a resolution that's in your
9 executive director's report.

10 Then, the third item on the list is the
11 internal rebalance of funds. That was discussed,
12 I guess, earlier this month at the investment,
13 the passport fund meeting here. And I guess
14 there were some questions answered.

15 There is a memo that was passed out to
16 the Board, and also there's a resolution that
17 will be in the executive director's report.

18 If there any questions I can entertain
19 them here.

20 (No response.)

21 If not, that's my report.

22 CHAIRPERSON ADLER: Thank you, Ms. Chan.

23 It's time for the executive director's
24 report.

25 MS. REILLY: Right, the executive

1 director's report.

2 First on there is the matter of the next
3 meeting. It has been suggested that the next
4 regular meeting of the Teachers' Retirement Board
5 be held on the third Thursday of the month,
6 September 20, 2018. We're off for the summer,
7 from a meeting standpoint.

8 So just mark your calendars.

9 Second on the executive director's report
10 is the authorization to the Comptroller of the
11 City of New York to invest certain funds.

12 MR. KAZANSKY: Please waive the reading.

13 CHAIRPERSON ADLER: So, we have in front
14 of us the authorization to the Comptroller to
15 invest certain funds for a period of three
16 months.

17 Is there a motion to adopt this
18 resolution?

19 MS. PENNY: So moved.

20 CHAIRPERSON ADLER: Thank you.

21 Is there a second?

22 MR. KAZANSKY: Second.

23 CHAIRPERSON ADLER: Thank you.

24 Any discussion?

25 MR. DORSA: Great idea.

1 CHAIRPERSON ADLER: Thank you, Mr. Dorsa,
2 for expressing your opinion.

3 All in favor of the motion to approve the
4 resolution regarding authorization of the
5 Comptroller to invest certain funds for a period
6 of three months, please say "Aye."

7 (A chorus of "Ayes.")

8 All opposed say "Nay."

9 Any abstentions?

10 (No response.)

11 Motion carries.

12 MS. REILLY: Next is an authorization for
13 the Comptroller of the City of New York to invest
14 certain tax deferred annuity funds.

15 MR. KAZANSKY: Please waive the reading.

16 CHAIRPERSON ADLER: So now we have this
17 resolution authorizing the Comptroller to invest
18 certain tax deferred annuity funds for a period
19 of three months.

20 Is there a motion?

21 MS. PENNY: So moved.

22 MR. BROWN: Second.

23 CHAIRPERSON ADLER: Any discussion?

24 MR. DORSA: Another good idea.

25 CHAIRPERSON ADLER: Any further

1 discussion?

2 (No response.)

3 All in favor of the motion to authorize
4 the Comptroller to invest certain tax deferred
5 annuity funds for a period three months, please
6 say "Aye."

7 (A chorus of "Ayes.")

8 All opposed say "Nay."

9 Any abstentions?

10 (No response.)

11 Motion carries.

12 MS. REILLY: Next is to authorize the
13 rebalance of the funds.

14 MR. KAZANSKY: Please skip to the
15 resolve.

16 MS. REILLY: "Resolved, in accordance
17 with the analysis of the chief actuary, the Board
18 authorizes TRS staff to effectuate the internal
19 rebalancing of the approximately \$75 million in
20 assets from the qualified pension plan to the
21 passport funds, in accordance with the actuary's
22 analysis."

23 CHAIRPERSON ADLER: Is there a motion to
24 adopt this resolution?

25 MR. BROWN: So moved.

1 CHAIRPERSON ADLER: Is there a second?

2 MS. PENNY: Second.

3 CHAIRPERSON ADLER: Any discussion?

4 (No response.)

5 All in favor motion to authorize the
6 rebalancing funds in accordance with the analysis
7 of the chief actuary, please say "Aye."

8 (A chorus of "Ayes.")

9 All opposed say "Nay."

10 Any abstentions?

11 (No response.)

12 Motion carries.

13 MS. REILLY: Next is the request for the
14 retirement board to adopt the actuary's
15 recommendation regarding Tier 3, 4 and 6 loan
16 insurance premium rates for fiscal year 2019.

17 MR. KAZANSKY: Please skip to the
18 resolves.

19 MS. REILLY: "Resolved, that the
20 retirement board hereby adopts the recommendation
21 of the actuary as stated in her report dated June
22 2, 2018, that stipulates the Tier 3, 4 and 6 loan
23 insurance premium rate be continued at its
24 current rate of .20 per annum of the outstanding
25 loan balances, for any loans originating during

1 fiscal year 2019; July 1, 2018 through June 30,
2 2019.

3 CHAIRPERSON ADLER: Is there a motion to
4 adopt this resolution?

5 MR. KAZANSKY: So moved.

6 CHAIRPERSON ADLER: Is there a second?

7 MR. DORSA: Second.

8 CHAIRPERSON ADLER: Any discussion?

9 (No response.)

10 All in favor of the motion to adopt the
11 request for the retirement board to adopt the
12 actuary's recommendation for Tier 3, 4 and 6 loan
13 insurance premium rate of .20 percent for fiscal
14 year 2019 please say "Aye."

15 (A chorus of "Ayes.")

16 All opposed say "Nay."

17 Any abstentions?

18 (No response.)

19 Motion carries.

20 MS. REILLY: Next is applicable interest
21 payments on death benefits and payments after
22 death.

23 MR. KAZANSKY: Please skip to the
24 resolves.

25 MS. REILLY: "Resolved, that interest of

1 death benefits shall commence on the 61st day
2 after the later of the date TRS is notified of
3 the death, or the date of death associated with a
4 payment after death has been satisfied. Interest
5 will continue until the earlier of the date the
6 death benefit payment is issued or six months
7 following the date on which TRS sends death
8 benefit information to the beneficiaries; or five
9 years after the date TRS is notified of the
10 death.

11 "And be it further resolved that the
12 current rate of interest shall continue, except
13 that such rate shall be determined from the date
14 of notification of death rather than from the
15 date of death.

16 "Resolved, that payments after death will
17 accrue simple interest of 7 percent in accordance
18 with the policy adopted by the executive
19 director.

20 "And be it further resolved, that this
21 resolution shall take effect upon adoption by the
22 executive director of any required policies and
23 procedures and the development of necessary
24 supporting benefit administration technology
25 being contemplated that provisions of this

1 resolution be implemented in phases."

2 CHAIRPERSON ADLER: Is there a motion to
3 adopt this resolution?

4 MR. ORLANDO: So moved.

5 CHAIRPERSON ADLER: Thank you, Mr.
6 Orlando.

7 Is there a second?

8 MR. KAZANSKY: Second.

9 CHAIRPERSON ADLER: Let me first ask. Is
10 everybody clear on what we are doing with this
11 resolution? Are there any questions about it?

12 (No response.)

13 Everybody gets it.

14 So, any further discussion other than
15 questions?

16 (No response.)

17 Seeing none, we'll move to a vote.

18 All in favor of the resolution concerning
19 applicable interest payments on death benefits
20 and payments after death, please say "Aye."

21 (A chorus of "Ayes.")

22 All opposed say "Nay."

23 Any abstentions?

24 (No response.)

25 Motion carries.

1 MS. REILLY: Next is attendance at a
2 conference.

3 "Resolved, that the Trustees of the
4 Teachers' Retirement Board hereby approve
5 attendance and participation of the executive
6 director and/or her designee and any interested
7 trustee of the Mayor's Office of Pension
8 Investment Conference from October 2 to October
9 3, 2018.

10 CHAIRPERSON ADLER: Is there a motion?

11 MR. BROWN: So moved.

12 CHAIRPERSON ADLER: Thank you.

13 Is there a second?

14 MS. PENNY: Second.

15 CHAIRPERSON ADLER: Thank you.

16 Any discussion?

17 MR. DORSA: I have one item I raised at
18 another board that -- is aware of. In cases or
19 instances where the folks going to this
20 conference represent the Mayor or the
21 Comptroller's Office, where we have multiple
22 people in each of our organizations that are
23 designated to sit as Trustees, that our offices
24 at least be thoughtful as far as attending
25 conferences and whether or not we are sending

1 multiple people from one retirement system to the
2 same conference; and if two people, for example,
3 from the Comptroller's Office, go to a
4 conference, perhaps not both going as members of
5 TRS for purposes of spending money on behalf of
6 the system.

7 So, we've raised this issue at another
8 board. It's just something we would like to
9 memorialize in the minutes, and just let people
10 know we'll be mindful of that as we go forward.

11 The point is not this conference, it's
12 conferences in general.

13 CHAIRPERSON ADLER: We don't send
14 multiple from our office.

15 (Talking over each other.)

16 Just from Teachers, since we're trustees
17 on multiple fronts.

18 MR. DORSA: To make that clear.

19 CHAIRPERSON ADLER: I don't think you're
20 making an amendment --

21 MR. DORSA: Not an amendment, just a
22 point.

23 CHAIRPERSON ADLER: Any further
24 discussion?

25 (No response.)

1 There's a motion on the floor.

2 All in favor of the motion to approve
3 attendance and participation of folks at the MOPI
4 conference, October 2 to 3, 2018, please say
5 "Aye."

6 (A chorus of "Ayes.")

7 All opposed say "Nay."

8 Any abstentions?

9 (No response.)

10 Motion carries.

11 MS. REILLY: Next is attendance at a
12 conference.

13 "Resolved, that the Trustees of the
14 Teachers Retirement Board be advised of the
15 attendance and participation of the executive
16 director and/or her designee and any interested
17 Trustee at the International Foundation of
18 Employee Benefit Plans, 64th annual employee
19 benefit conference, from October 14 to the 17th,
20 2018.

21 CHAIRPERSON ADLER: Is there a motion?

22 MR. DORSA: So moved.

23 CHAIRPERSON ADLER: Is there a second?

24 MR. BROWN: Second.

25 CHAIRPERSON ADLER: Any discussion?

1 (No response.)

2 All in favor of the motion to approve
3 attendance at the IFEBP conference on October 14
4 to 17, 2018, please say "Aye."

5 (A chorus of "Ayes.")

6 All opposed say "Nay."

7 Any abstentions?

8 (No response.)

9 Motion carries.

10 MS. REILLY: Next on the agenda is the
11 calendar. The first item is the matter of the
12 approval of the minutes for May 3, 2018 TRS
13 investment meeting; May 17, 2018 TRS regular
14 board meeting; and May 21, 2018 TRS common
15 investment meeting minutes.

16 CHAIRPERSON ADLER: Let me say that I
17 sent Liz a couple of minor issues from the
18 minutes. So I would propose that we adopt the
19 minutes with these changes noted.

20 One is that Rosa Polanca's name was
21 misspelled throughout the May 17, regular board
22 minutes, which is when we approved the budget.
23 So she was a frequent appearer in those minutes.

24 And second was at the May 21 TRS common
25 investment meeting, Phil Dukes was not listed as

1 present representing the Mayor, and he
2 represented the Mayor.

3 So those two things noted in the minutes.
4 Are there any other comments or changes
5 for the minutes?

6 (No response.)

7 Can we get a motion to approve the May 3
8 investment meeting minutes, the May 17 regular
9 board meeting minutes, and the May 21 TRS common
10 investment meeting minutes?

11 MR. KAZANSKY: So moved.

12 CHAIRPERSON ADLER: Is there a second?

13 MR. DORSA: Second.

14 CHAIRPERSON ADLER: Any further
15 discussion?

16 (No response.)

17 All in favor of approval of the minutes
18 please say "Aye."

19 (A chorus of "Ayes.")

20 All opposed say "Nay."

21 Any abstentions?

22 (No response.)

23 Motion carries.

24 MS. REILLY: Next on the items on the
25 calendar, you all received an electronic version

1 of the calendar items. I think at this point --

2 MR. KAZANSKY: Please waive the reading
3 of the calendar.

4 CHAIRPERSON ADLER: So, we have the
5 calendar in front of us.

6 Can we get a motion to approve the
7 calendar?

8 MS. PENNY: So moved.

9 CHAIRPERSON ADLER: Is there a second?

10 MR. BROWN: Second.

11 CHAIRPERSON ADLER: Any discussion of the
12 calendar?

13 (No response.)

14 All in favor of approving the calendar of
15 June 21, 2018 please say "Aye."

16 (A chorus of "Ayes.")

17 All opposed say "Nay."

18 Any abstentions?

19 (No response.)

20 Motion carries.

21 We have a few items of other business.

22 MS. REILLY: Right.

23 So, the next item is to finalize the
24 board meeting dates for next year.

25 CHAIRPERSON ADLER: There is one issue I

1 have, and the Comptroller's Office has; the date
2 for the investment meeting originally scheduled
3 for May 2 was pushed to May 9. It conflicts with
4 another system's board meeting that the
5 Comptroller's Office and Mayor's Office must be
6 present at.

7 Do we need to resolve that today, or can
8 we do that via e-mail?

9 So please note that meeting date will be
10 changed before the calendar board meeting dates,
11 not to be confused with the calendar finalized.

12 MS. REILLY: Next we have a presentation
13 on monetization from Bob Gray.

14 MR. GRAY: Good afternoon, ladies and
15 gentlemen. It's a pleasure to have been invited
16 here to talk about modernization at TRS and
17 answer any question you may have about it.

18 (Indicating projection screen.)

19 It's been a while since we've talked
20 about modernization formally, so I thought that
21 I'd start out by framing what modernization at
22 TRS is all about, and then getting into where we
23 are and where we're going.

24 When we started the modernization program
25 at TRS, we thought our objective was to replace

1 our obsolete pension administration system, UPS.
2 But we came to realize that was really only part
3 of it; that the real goal of the program is to
4 take advantage of the opportunity presented to us
5 by the need to replace that system to really
6 transform the way that we're delivering our
7 products and services to our members, and to
8 increase the value we're delivering to our
9 membership.

10 And how do we do that? It's not only by
11 building a new processing system, it's by
12 overhauling our processes and realigning our
13 organization. This holistic approach to
14 implementing TRS's vision of what the future is
15 going to hold in terms of our processes, systems
16 and the products that we're delivering, is what's
17 allowing us to achieve the success in delivering
18 the main objectives of the program.

19 And those are: A new up to date website
20 for our members, so that they can go on anytime
21 24/7 that's convenient for them to look at
22 information about their account or to initiate
23 real time transaction requests with us. No
24 longer waiting around to file one of the 200 plus
25 pieces of paper that we have to get something

1 done, or waiting until our business hours to call
2 in with our questions.

3 The second objective is to automate the
4 end to end fulfillment of the member's
5 transaction requests, get them pushed through the
6 system as fast as possible. If there are
7 exceptions, of course, we'll drop them out to be
8 manually handled and reinserted back in.

9 But if the system has everything that it
10 needs, if there are no exceptions, and if the
11 results of that processing pass our reasonability
12 check and controls, the member's going to get
13 what they want in the optimum turnaround time
14 frame.

15 Our customer service ethic at TRS has
16 always been excellent. But with the
17 implementation of Aspen, we'll be able to take
18 that to a new level. Right now, we do solve
19 problems when they come up. The member asks us
20 to do something and we have a problem, an
21 exception, we resolve it as quickly as possible
22 and pass it through.

23 In the future, we're going to be able
24 detect those before they crop up during the
25 fulfillment process, and lot of times before the

1 member even asks for transactions. We will be
2 monitoring the data, looking for deficiencies;
3 and where we need the member's help, we'll be
4 pulling the member in so they can provide what we
5 need from them before they even would feel the
6 impact of the deficiency.

7 We're building a data warehouse, we built
8 the data warehouse, we're filling the data
9 warehouse. And we're providing our business
10 units with a data visualization tool, which is
11 sort of a whizz-bang reporting that goes beyond
12 anything you have seen before, that allows them
13 to access that data and slice and dice it anyway
14 they want, to support their analysis of ongoing
15 membership data and ongoing delivery data, for
16 how we're delivering our products and services to
17 the member.

18 It's an eye toward supporting the
19 continuous improvement of the processing and the
20 way that we're delivering products and services
21 to our member.

22 And the last major objective is
23 technical. We really are looking to take
24 advantage of the evolution and the advances in
25 technology to significantly minimize the amount

1 of effort it will take in the future to maintain
2 and enhance our system.

3 So, how are we going about doing it?

4 Well, we're a modernization program. And a
5 program is a collection of projects. I'm going
6 to fill up this page with all of the
7 modernization projects that make up TRS's
8 modernization program.

9 So, the first project is to do with
10 reengineering our processes, envisioning what
11 those processes are going to look like in the
12 future. We have a product management team that's
13 examining everything that we do to come up with
14 the best way for doing it in the future.

15 We have, of course, the Aspen development
16 project. We're putting together that new
17 application system, we're testing it and we're
18 phasing it into production.

19 We, at the same time, because it's a
20 phased implementation of the new system, we have
21 to re-factor, we have to change the old system
22 and bring down pieces of the old system as the
23 concomitant pieces go into place for Aspen.

24 We have an independent quality assurance
25 arm, a whole group of testers who are out there

1 to rigorously test, not only the functionality
2 that we're building in the system, but to test
3 that against the new procedures and processes
4 being developed, to make sure that functionality
5 supports the new way of doing things.

6 We have data, we have years and years
7 worth of data in our old system that has to be
8 migrated over to Aspen, and we have the data
9 readiness team set up to do that migration.

10 By the way, they're also cleaning up any
11 of the problems that we have with the old data,
12 to insure that when the data is in the new
13 system, we can trust in the integrity of that
14 data which supports that end to end straight
15 through processing objective that we have.

16 We have an operational readiness team,
17 because just getting the system ready doesn't
18 mean that everybody is ready to use it. So the
19 operational readiness team is reaching out to the
20 TRS organization, the TRS stakeholders and the
21 TRS membership to make when we're implementing
22 phases of modernization, everybody's set for it
23 and is operationally ready to be able to use
24 that.

25 We have an organizational change

1 management component. This deals with the human
2 dimension of change. Nobody ever jumps up and
3 down and says, "Oh, boy, the new system is here,"
4 because the devil you know is better than the
5 devil you don't.

6 But, by putting together a program that
7 enrolls everybody in the change, that makes them
8 part of it, helps them to adopt it; and for a
9 project this size, I have to say, my personal
10 experience, I've never seen a project with such a
11 minimal negative drumbeat. Everybody here is
12 excited about what's coming along, and they
13 really do feel they are a part of it.

14 We have a data governance program in
15 place. The data migration, the data readiness
16 team, as I said, is making sure that we're taking
17 data from our old system and a one shot deal,
18 we're getting it into the new system so we can
19 trust in the integrity of the data.

20 The data governance program makes sure
21 that we're monitoring that data against the
22 standards that we set, fixing any issues with
23 that so that we can continue to trust in the
24 integrity of the data in our system.

25 The infrastructure team is responsible

1 for all of the environments, all of the many
2 environments and the cables and the routers and
3 the many, many thousands of technical components
4 that are required to support a program of this
5 size.

6 We also have the data warehouse that I
7 talked about before, that lets us go in, take
8 data out of the production system and make it
9 available for slicing and dicing and all sorts of
10 analysis and visualization.

11 Project risk management. Internally our
12 risk department is working with each one of these
13 projects to identify the specific risks with
14 those projects, the risks between these projects,
15 and help them to mitigate them or the other
16 offsetting factors we do with risk.

17 We have a program management office,
18 because when you have a program of this size with
19 this many projects, you do need a central place
20 that's coordinating the activity of all of them,
21 making sure that the interdependencies are
22 working correctly, and that any issues that are
23 coming up are being resolved in a timely fashion.

24 And last but not least, we have the
25 independent validation and verification

1 component. It's that consulting firm that
2 produces reports to the Board about how we're
3 doing. And I must say, we're finding value in
4 those reports too, because it's an extra set of
5 eyes looking at the forest and not totally
6 immersed in the trees.

7 So, what's the progress that we've made?
8 That's what our program is pretty much all about,
9 in a nutshell. Since we started, I do want to
10 point out that the old Board gave us partial
11 funding to get this thing started, with the
12 condition that we not spend it on anything that
13 wouldn't be reusable if the new Board decided not
14 to fund modernization.

15 This kind of hamstrung us for a little
16 while, while we were moving through the initial
17 phases and then talking to the new Board about
18 modernization; because we were expecting to go
19 full boat into the project.

20 But in December of 2014, we got approval
21 for the entire project and we've been moving full
22 boat since then.

23 One of the first things that we did was,
24 we had to stand up the infrastructure, which is
25 no small task. Apart from all the employees that

1 we have working on this, we have over 100
2 consultants we brought in to work on this
3 initiative, to make sure it gets delivered on
4 time and on budget. And that infrastructure has
5 to support everybody who's testing, developing,
6 quality assuring, writing procedures, making sure
7 we're operationally ready. And again, the fact
8 that it stood up as maintained is a credit to
9 that infrastructure team.

10 We've been averaging one implementation
11 phase of fiscal year since we started the
12 project. Phase 1, we stood up that website.
13 That new redesigned look and feel, modern
14 website, intuitive that our members can tap into,
15 and we continue to build on that with every phase
16 we put in.

17 The second phase that we put in was all
18 about the demographics, the basis for what the
19 system has to do. All of the information about
20 our members, what tier they are in, what plan
21 they're in, who their beneficiaries are, that
22 we're going to use in the later phases to deliver
23 the benefits that they asked for.

24 We also put in a customer relationship
25 management component of our new system. It

1 drives everything that the walk-in center and the
2 call center are doing.

3 In Phase 3 we took care of the
4 enrollments, the force-ins, the voluntary
5 enrollments, the waivers that various people have
6 for why they don't have to be enrolled in TRS.
7 And we introduced Lexus Nexus validations as one
8 way to protect members from fraud.

9 Now we're reaching out to Lexus Nexus to
10 get information to compare it to what people are
11 giving us, and insure that what we have in our
12 database is something that we can trust in and
13 trust that we have the right member.

14 In Phase 4A, which we implemented this
15 fiscal year, we did another safeguard. We
16 introduced dual factor authentication as the
17 log-in, which has become the industry standard
18 for insuring that we're protecting members' PII,
19 and we're protecting them from fraud, other
20 people logging into the website in their name.

21 We also introduced a tool that allows our
22 public information office to maintain the 225
23 non-login pages of information on the website
24 without having to change IT resources to do
25 uploads and testing and some of the technical

1 things that they had to be involved with.

2 We, as I said before, we have extracted,
3 transformed and loaded production data from each
4 one of the these phased deliveries from Aspen
5 into the data warehouse. And the businesses are
6 busily going about using that data to support
7 analysis, to look at how we're doing, what's
8 happening, and to predict what we think is going
9 to happen in the future.

10 We're also, because it's a multi-phase
11 and a big project, we're not just working on this
12 one phase at a time. So, we're working on, at
13 the same time as we worked on Phase 4A, we've
14 been working on Phase 4, which has to do with
15 non-periodic payroll, that 's every disbursement
16 we generate other than retirement disbursement,
17 death benefits processing and getting the
18 beneficiaries what they're entitled to, and all
19 the banking functions that are required to
20 support that.

21 And this sets us up for all the other
22 non-periodic payroll functions in the future,
23 loans withdrawals, et cetera.

24 We're also introducing an online payment
25 function, brand new. Members can go online and

1 pay bills that they have in TRS, credit card and
2 debit card and EFT, rather than the current way
3 they have, or adding to the current ways that
4 they can, by sending us in a check or taking a
5 payroll deduction.

6 We are in SIT for Phase 5, which is also
7 the retirement payroll and supporting functions
8 that are necessary there. And we are also
9 developing for Phase 6, which is the benefit
10 calculations and delivery for the other types of
11 products and services that TRS has.

12 So there are many moving parts here.
13 We're not single tracking by phase. We have
14 different teams working on different phases so
15 that we can continue to deliver the schedule we
16 set for ourselves.

17 I think one good way to measure this is,
18 the way that an agile project looks at the effort
19 that it takes to get something done is by story
20 points. And we've right now completed 50 percent
21 of the story points associated with our Aspen
22 development, and we've expended 48 percent of the
23 budget.

24 So, where are we going? Well, where
25 we're going is based on where we've been. We're

1 going to continue to do those fiscal year
2 implementations of the remaining phases of the
3 project, and we're expecting that some time in
4 the fiscal year 2021, actually the beginning of
5 calendar year 2022, we'll have completed the
6 modernization initiative, we can completely turn
7 off UPS and tie a bow around this and move into
8 the enhancement and maintenance phases of it.

9 I'm happy to answer any questions that
10 you have. Thank you for your time listening.

11 CHAIRPERSON ADLER: Questions?

12 (Applause.)

13 What does SIT mean?

14 MR. GRAY: System Integration Testing.

15 We're putting together a whole lot of
16 functionality for the system. But it never works
17 in a vacuum. We need to make sure that the
18 functionality integrates with each other.

19 Like I said, we've developed demographic
20 functionality to capture base data about the
21 member. We have to make sure that integrates
22 with the functions that use that base data, that
23 retirement functionality is looking at the
24 member's tier when it's calculating the
25 retirement; that the loan payoff functionality is

1 referring back to the loan origination
2 functionality when it's calculating how much is
3 left to pay off.

4 So that's what it stands for, and it sets
5 up a whole separate phase. And the real
6 shakedown of the system. We do that before we
7 turn it over to the users for user acceptance
8 testing.

9 CHAIRPERSON ADLER: Got it.

10 Then, the credit cards. So, we're going
11 to be enabling credit card payments. Will
12 members have to pay an additional fee to use the
13 credit card?

14 MR. GRAY: I'm trying to remember what we
15 decided on that point. I'll have to get back to
16 you on that. Yes, the members will pay --

17 THE SPEAKER: It's pretty standard in the
18 city, so.

19 MR. GRAY: Every type of transaction
20 there is a fee associated --

21 CHAIRPERSON ADLER: You're not charging
22 EFT?

23 MR. GRAY: Nobody charges for EFT. But
24 they do charge the credit fee --

25 CHAIRPERSON ADLER: The credit card

1 company charges -- that's non refundable. I
2 happen to know that from experience.

3 (Laughter.)

4 Last question.

5 Sagitech is the system integrator that
6 we're working with; right?

7 MR. GRAY: Yes. Sagitech is, yes, the
8 software company whose base product we bought,
9 and who we're building that frame work system
10 around. And we're collaborating with them.

11 Part of this -- I didn't bring this up
12 before -- but one of the things we're doing in
13 this project, it's a collaborative approach, a
14 blended team approach. So Sagitech and TRS, the
15 system integrate --

16 CHAIRPERSON ADLER: That's my question.
17 Once all the phases have been implemented and
18 we're in the maintenance and improvement --

19 MR. GRAY: Enhancement.

20 CHAIRPERSON ADLER: Does Sagitech still
21 have a role, or they're out the door at that
22 point?

23 MR. GRAY: Sagitech is out the door
24 mostly. We would sign a production support with
25 them. Again, we're using their base framework.

1 And to get technical for a minute. We like their
2 framework because it has a lot of different
3 technical components worked into it, and we don't
4 have to worry about upgrading and maintaining it
5 separately. So we want to have a production
6 support agreement with Sagitech.

7 But in terms of the development work, and
8 coding for, putting together whatever program
9 changes we need to address new legislation or new
10 Board requirements; the reason for the blended
11 teams is that our teams are learning during the
12 project, so that by the time the project is over
13 they're up to speed and we can say goodbye to the
14 consultants.

15 Similarly, every other component of the
16 project, because we're compiling a methodology
17 for enhancement here and maintenance. With the
18 quality assurance, we have a quality assurance
19 expert firm helping us. By the end of the
20 project, because they're blending with TRS
21 resources, we can say goodbye to those
22 consultants.

23 We can say goodbye to the operational
24 analyst consultants that are helping us to be
25 operationally ready.

1 So we've taken that blended team approach
2 with every one of the program components, so that
3 at the end of the project we can kiss a hundred
4 something consultants goodbye.

5 CHAIRPERSON ADLER: But with Sagitech,
6 the only ongoing thing is the product upgrade
7 stuff, when they do new releases and stuff like
8 that; is that right?

9 MR. GRAY: Yes; that's the sort of thing
10 we would sign a maintenance agreement for.

11 CHAIRPERSON ADLER: Perfect; thanks.

12 Does anybody else have questions for Bob?

13 (No response.)

14 Thanks so much. Great presentation.

15 MR. GRAY: Anybody have questions --

16 MS. REILLY: So, we sent you an
17 electronic version of the IV and V report. The
18 one item that I'll bring up front that I see in
19 there that I think may raise questions, is their
20 concern about missed requirements as part of --
21 they felt we had an abundance of missed
22 requirements during ITG; SIT. ITG is the old
23 version.

24 I wanted to point out that once we became
25 aware of those concerns, we did a deep dive into

1 all of the issues that were raised and put as
2 missed requirements. And what we found was,
3 those were miscategorized. Because the testers,
4 they didn't have a category they felt that met
5 what the problem was, so they just started
6 dumping things into this missed requirement
7 category.

8 But when we did the deeper dive, it
9 became evident to us that we had very few missed
10 requirements. And we reported that back to the
11 IV&V vendor. It didn't make it in time for this
12 report, but it would be reflected in the next
13 report.

14 So that was one of the major concern I
15 saw he had, and that was the response to that.
16 So you should see in the next report where he
17 addresses the fact that they were in fact not
18 actual missed requirements.

19 Because missed requirements are the worst
20 thing you can have. That means, if you're all
21 the way at testing, that means you have to go
22 back and start programming things from the
23 beginning, and that's the most costly kind of
24 testing issue you have can have.

25 And we were concerned, and when we did

1 the deep dive we saw that we're not actually at
2 what was happening. Not that they don't have
3 issues, but that it wasn't as bad as that IV&V
4 report indicated. You will see that in the next
5 report.

6 Bob, do you want to add anything to that?

7 MR. GRAY: No.

8 MS. REILLY: But if you have any question
9 from reading of the report?

10 CHAIRPERSON ADLER: Any questions for
11 IV&V?

12 (No response.)

13 MS. REILLY: I have another item.

14 Thank you, Bob.

15 We received a request from -- PEPTA; the
16 Public Employee Pension Transparency Act. And
17 it's been reintroduced by Congressman Devin
18 Nunes. And he's looking for co-sponsors for the
19 legislation.

20 And the last time this legislation was
21 being considered, Teachers' Retirement sent a
22 letter in along with many other retirement
23 systems.

24 So PEPTA would require mandating state
25 and local pension plan disclosure of their

1 liabilities based on U.S. Treasury bond rates.
2 It requires the secretary of the Treasury provide
3 these disclosures to the public to a surgical
4 website. It eliminates the federal tax exempt
5 bonding authority of state and local governments
6 that don't comply with PEPTA requirements. And
7 it makes it exclusively clear that the state and
8 local pension obligations are solely the
9 responsibility of the those entities, and that
10 the federal government will not provide a
11 bailout.

12 So what we're asking here is for the
13 Board's approval to send a letter saying that
14 we're not in favor of PEPTA.

15 CHAIRPERSON ADLER: We would send a
16 letter to whom?

17 MS. REILLY: We send it to --

18 MR. McTIGUE: Congressional delegation
19 asking them not to sign on --

20 CHAIRPERSON ADLER: The whole New York or
21 New York City Congressional delegation, like the
22 two senators plus all the Congress people who
23 represent New York City?

24 MR. MCTIGUE: That's correct.

25 CHAIRPERSON ADLER: Any questions or

1 discussion about this?

2 MR. DORSA: Is this something you want to
3 take care of today?

4 MS. REILLY: Yes, because we want to get
5 the letter out. This could happen quickly.

6 CHAIRPERSON ADLER: For background, this
7 legislation has been around for, I'd say, at
8 least six years, maybe longer. Nunes has been
9 pushing this.

10 And I'd say the public pension community
11 as well as the public employees union community
12 has been fighting against it since it's been
13 introduced, because it -- honestly, I'd say, I
14 believe that the objective of this legislation is
15 to undermine support for public pensions. That's
16 what it's about.

17 So, can we have a motion to approve TRS
18 sending the letter, with the specifics introduced
19 for TRS to the New York Congressional delegation?

20 MR. KAZANSKY: So moved.

21 CHAIRPERSON ADLER: Is there a second?

22 MS. PENNY: Second.

23 CHAIRPERSON ADLER: Any further
24 discussion?

25 (No response.)

1 All in favor of the motion to authorize
2 the System to send this letter to the New York
3 Congressional delegation, please say "Aye."

4 (A chorus of "Ayes.")

5 All opposed say "Nay."

6 Any abstentions?

7 (No response.)

8 Motion carries.

9 Any questions or comments from the
10 public?

11 (No response.)

12 Before we entertain a motion to enter
13 executive session, I'd like to recognize, as he
14 earlier alluded to, that this is Mr. Orlando's
15 final board meeting as a Trustee representing the
16 PEP on the Board.

17 And I want to say it has been a pleasure
18 for me personally serving on this board with Mr.
19 Orlando. And I think he has played a tremendous
20 role in supporting the work of the Teachers'
21 Retirement System and supporting the members of
22 the system, as well as the rest of the Board, in
23 advancing the system's mission of serving the
24 active and retired members of the Teachers'
25 Retirement System.

1 I know I will miss him personally, and I
2 think the Board will miss his acuity and humor.
3 But I'm confident that his future replacement
4 will also be a great member of our Board.

5 I don't know if anybody else wants to add
6 anything.

7 MR. KAZANSKY: On behalf of the Teacher
8 trustees, it's been a pleasure to work on this
9 board with you. And we wish you all the best in
10 all your future endeavors, whatever they may be.
11 And please keep in touch with us and let us
12 know --

13 MR. ORLANDO: Of course; delighted to.

14 MR. DORSA: And the Comptroller's Office
15 echoes those sentiments. Thank you for you
16 service, not just to this fund, but to the City
17 for all these years.

18 MR. ORLANDO: Thank you all.

19 MS. REILLY: I do want mention that we do
20 have a cake for you.

21 (Laughter.)

22 MR. ORLANDO: I support cake.

23 MS. REILLY: To celebrate Ray's service
24 to the Board.

25 (Applause.)

1 CHAIRPERSON ADLER: With that, I think a
2 motion to exit public session and enter executive
3 session would be in order.

4 MS. PENNY: I move, pursuant to Public
5 Officer's Law Section 105, to go into executive
6 session for discussions regarding specific
7 contract matters.

8 CHAIRPERSON ADLER: Is there a second?

9 MR. BROWN: Second.

10 CHAIRPERSON ADLER: Any discussion?

11 (No response.)

12 All in favor of the motion to enter
13 executive session please say "Aye."

14 (A chorus of "Ayes.")

15 All opposed say "Nay."

16 Any abstentions?

17 (No response.)

18 Motion carries.

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1 (Whereupon, the Board entered executive
2 session.)

3 (Brief discussion off the record.)

4 CHAIRPERSON ADLER: Thank you.

5 There's a motion on the table to exit
6 executive session and go back to public session.

7 All in favor of the motion please say
8 "Aye."

9 (A chorus of "Ayes.")

10 All opposed say "Nay."

11 Any abstentions?

12 (No response.)

13 Motion carries.

14 (Whereupon, the Board returned to public
15 session.)

16 CHAIRPERSON ADLER: We're back in public
17 session.

18 Susan, would you please report out of
19 executive session?

20 MS. STANG: In executive session there
21 were several investment discussions related to
22 contracts that were renewed. Consensus was
23 reached, which will be announced at the
24 appropriate time.

25 CHAIRPERSON ADLER: Thank you very much.

1 With that, I think that concludes our
2 business for today.

3 Is there a motion to adjourn?

4 MR. ORLANDO: So moved.

5 CHAIRPERSON ADLER: Thank you, Mr.
6 Orlando.

7 Is there a second?

8 MR. BROWN: Second.

9 CHAIRPERSON ADLER: Any discussion?

10 (No response.)

11 All in favor of the motion to adjourn
12 please say "Aye."

13 (A chorus of "Ayes.")

14 All opposed say "Nay."

15 Any abstentions?

16 (No response.)

17 Motion carries meeting is adjourned.

18 (Time noted: 4:36 p.m.)

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C E R T I F I C A T I O N

I, Jeffrey Shapiro, a Shorthand Reporter and Notary Public, within and for the State of New York, do hereby certify that I reported the proceedings in the within-entitled matter, on Thursday, June 21, 2018, at the offices of the NEW YORK CITY TEACHERS RETIREMENT SYSTEM, 55 Water Street, New York, New York, and that this is an accurate transcription of these proceedings.

IN WITNESS WHEREOF, I have hereunto set my hand this 26th day of June, 2018.

JEFFREY SHAPIRO