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NEW YORK CITY TEACHERS' RETIREMENT SYSTEM  
BOARD MEETING

Held on Thursday, September 28, 2017, at 55 Water  
Street, New York, New York

ATTENDEES:

- JOHN ADLER, Chairman, Trustee
- DAVID KAZANSKY, Trustee
- THOMAS BROWN, Trustee
- SUSANNAH VICKERS, Trustee
- RAYMOND ORLANDO, Trustee
- DEBRA PENNY, Trustee
- PATRICIA REILLY, Teachers' Retirement System
- SUSAN STANG, Teachers' Retirement System
- VALERIE BUDZIK, Teachers' Retirement System
- THAD McTIGUE, Teachers' Retirement System

REPORTED BY:

YAFFA KAPLAN  
JOB NO. 0611014

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ATTENDEES (Continued):

- KAVITA KANWAR, Teachers' Retirement System
- PAUL RAUCCI, Teachers' Retirement System
- ANNETTE HANHARAN, Teachers' Retirement System
- ANTHONY MEZZACAPPA, Teachers' Retirement System
- ROBERT GRAY, Teachers' Retirement System
- CARMELA CRIVELLI, Teachers' Retirement System
- RENEE PEARCE, Teachers' Retirement System
- BRYAN BERGE, ESQ., Law Department
- SAM RUMLEY, Office of the Actuary
- ANDREW BRADFORD, Teachers' Retirement System
- NATARAJAN KRISHNAMOORTHY, Teachers' Retirement System

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2 MR. ADLER: Good afternoon everyone.  
3 Welcome to the Teachers' Retirement System  
4 board meeting for September 28, 2017.

5 Pat, will you please call the roll?

6 MS. REILLY: John Adler?

7 MR. ADLER: I am here.

8 MS. REILLY: Debra Penny?

9 MS. PENNY: Here.

10 MS. REILLY: David Kazansky?

11 MR. KAZANSKY: Present.

12 MS. REILLY: Thomas Brown?

13 MR. BROWN: Here.

14 MS. REILLY: And Raymond Orlando?

15 MR. ORLANDO: I am finally here as you  
16 all noticed.

17 MS. REILLY: Susannah Vickers?

18 MS. VICKERS: I am here.

19 MS. REILLY: We do have a quorum.

20 MR. ADLER: Great. Thank you. Take us  
21 away.

22 MS. REILLY: Next on the agenda is an  
23 update on TRS operations. Kavita is going to  
24 give that to us.

25 MS. KANWAR: Approximately 12,500

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2 members elected to increase their TDA  
3 contributions rates in advance of the  
4 retroactive payment that they will receive on  
5 October 16th under the UFT contract. The  
6 retroactive payment provides members a rare  
7 opportunity to make a large one-time deposit  
8 into the TDA account. Thank you, Pat. TRS  
9 contacted eligible members with instructions  
10 for adjusting their TDA rates before and after  
11 the payment.

12 So far this school year, approximately  
13 5,553 new members have been enrolled for TRS  
14 based on the data TRS received from the  
15 Department of Education and charter schools.  
16 New members receive a welcome letter from TRS  
17 shortly after their membership begins. Thank  
18 you.

19 MS. REILLY: Thank you, Kavita. Next on  
20 the agenda is a report from the Actuary.

21 MR. RUMLEY: I think for the sake of  
22 brevity because there are six fiscal notes  
23 that are on this particular agenda, the fiscal  
24 notes were pointed out in a memo September 21,  
25 2017 from the Chief Actuary, and in appendix A

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2 of that memo I will just briefly say what each  
3 of the fiscal notes is addressing.

4 Fiscal note 28 or 2017-28, this is a  
5 fiscal note that would increase the cost of  
6 living, basically COLA amounts for members of  
7 the New York City Retirement System members  
8 who retired between 1961 and 1972. The second  
9 fiscal note, 2017-30, this will grant active  
10 Tier III and Tier IV New York City Retirement  
11 System members who have incurred a World Trade  
12 Center qualifying condition performance of  
13 duty disability retirement equivalent to 75  
14 percent of their final average salary.

15 Fiscal note 2017-34, this will increase  
16 the COLA to a surviving spouse from 50 percent  
17 to 100 percent of the COLA that the pensioner  
18 would be receiving if still alive. Currently  
19 when the pensioner dies, the beneficiary would  
20 only be receiving 50 percent but this  
21 particular increase would go from 50 to 100  
22 percent. The next fiscal note, 2017-35, for  
23 an individual member Margaret Rousseau who is  
24 currently an active Tier IV member of TRS.  
25 She would get a change in her tier from Tier

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2 IV to Tier I, and she would get a change in  
3 her membership. I believe it currently is  
4 1995, and we would revert it back to  
5 January 1, 1970.

6 Fiscal note 2017-36, there are certain  
7 paraprofessional titles in the UFT now where  
8 individuals can opt into being members of TRS,  
9 and this would mandate those particular  
10 paraprofessionals into TRS. And the last  
11 fiscal note, 2017-38, this would increase the  
12 earnings limit of certain retirees who  
13 returned to employment in public service.  
14 Currently the limit is 30,000, and this would  
15 increase it to 35,000.

16 MS. REILLY: Thank you, Sam.

17 MR. ADLER: Any questions for Sam? I  
18 just -- I don't know if you know the answer to  
19 this. I don't think any of these bills passed  
20 in this year's session or maybe Valerie --

21 MS. BUDZIK: My understanding is no.

22 MR. ADLER: But they are still alive for  
23 the second year of the session next year?  
24 Yes? Okay. Any other questions? Okay.

25 MR. RUMLEY: Thank you.

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2 MS. REILLY: Next is the executive  
3 director's report. And the first item on the  
4 executive director's report is the next  
5 meeting which has been suggested that the next  
6 regular meeting of the Teachers' Retirement  
7 Board be held on the third Thursday of the  
8 month, October 19, 2017. Mark your calendars.

9 The second item is the authorization to  
10 the Comptroller of the City of New York to  
11 invest certain funds.

12 MR. KAZANSKY: Please waive the reading.

13 MR. ADLER: So we need a motion to  
14 approve the resolution authorizing the  
15 Comptroller of the City of New York to invest  
16 certain funds. Is there such a motion?

17 MR. BROWN: So moved.

18 MR. ADLER: Thank you, Tom. Is there a  
19 second?

20 MS. PENNY: Second.

21 MR. ADLER: Thank you, Debbie. Any  
22 discussion? All in favor of the motion  
23 authorizing the Comptroller of the City of New  
24 York to invest certain funds, please say aye.  
25 Aye.

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2 MR. KAZANSKY: Aye.

3 MR. BROWN: Aye.

4 MR. ORLANDO: Aye.

5 MS. VICKERS: Aye.

6 MS. PENNY: Aye.

7 MR. ADLER: All opposed, please say nay.

8 Any abstentions? Thank you. The motion  
9 carries.

10 MS. REILLY: Next is the resolution of  
11 the authorization to the Comptroller of the  
12 City of New York to invest certain  
13 Tax-Deferred Annuity funds.

14 MR. KAZANSKY: Again, waive the reading.

15 MR. ADLER: So again, a motion to  
16 authorize the Comptroller of the City of New  
17 York to invest certain Tax-Deferred Annuity  
18 funds.

19 MS. PENNY: So moved.

20 MR. ADLER: Thank you, Debbie.

21 MR. BROWN: Second.

22 MR. ADLER: Any discussion? All in  
23 favor of the motion authorizing the  
24 Comptroller of the City of New York to invest  
25 certain Tax-Deferred Annuity funds, please say

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2 aye. Aye.

3 MR. KAZANSKY: Aye.

4 MR. BROWN: Aye.

5 MR. ORLANDO: Aye.

6 MS. VICKERS: Aye.

7 MS. PENNY: Aye.

8 MR. ADLER: All opposed, please say nay.

9 Any abstentions? Okay. Motion carries.

10 Thank you.

11 MS. REILLY: Next is the ratification of  
12 the resolution adopted by emergency vote on  
13 August 16, 2017 that proposed the feasibility  
14 study for the Roth option in the TDA program.

15 MR. KAZANSKY: Please skip to the  
16 resolved.

17 MS. REILLY: "Resolved, that TRS shall  
18 report back to the Board on the results of the  
19 feasibility analysis" -- I'm sorry.

20 MR. ADLER: There is an earlier --

21 MS. REILLY: I'm sorry. "Resolved that  
22 the Board approves the expenditure of up to  
23 \$365,250 with such cost is payable from the  
24 TDA/Variable Annuity Expense Fund". And that  
25 was the "Whereas". "Therefore, be it resolved

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that the Board approve the expenditure of \$365,250 from the TDA/Variable Expense Fund to enable TRS to conduct a feasibility analysis for a Roth option in the TRS's Tax-Deferred Annuity Program, and be it further resolved that TRS shall report back to the Board of the results of the feasibility analysis."

MR. ADLER: So just a reminder that we adopted this on an emergency vote in August, so today's action is to really ratify that emergency vote. So we do need a motion to ratify that resolution, the approval of that resolution. Is there a motion?

MS. VICKERS: So moved.

MR. ADLER: Do we have a second?

MS. PENNY: Second.

MR. ADLER: Motion made and seconded. Any discussion, further discussion? Okay. All in favor of the motion to ratify the resolution regarding the TDA feasibility study, Roth feasibility study, please say aye. Aye.

MR. KAZANSKY: Aye.

MR. BROWN: Aye.

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2 MR. ORLANDO: Aye.

3 MS. VICKERS: Aye.

4 MS. PENNY: Aye.

5 MR. ADLER: All opposed, please say nay.

6 Any abstentions? Okay. Motion carries. I  
7 apologize for the meandering description of  
8 the motion.

9 MS. REILLY: The next is ratification of  
10 the resolution adopted by emergency vote on  
11 August 16, 2017, to request attendance at a  
12 conference. "The Trustees of the Teachers'  
13 Retirement Board hereby approve the attendance  
14 and participation of the Executive Director  
15 and/or her designees and any interested  
16 Trustee at the National Conference of Public  
17 Employee Retirement Systems' 2017 Public  
18 Pension Funding Forum from September 10th to  
19 September 12, 2017".

20 MR. ADLER: Okay. So again, a  
21 ratification here. Is there a motion?

22 MR. KAZANSKY: So moved.

23 MR. ADLER: Is there a second?

24 MS. VICKERS: Second.

25 MR. ADLER: Any discussion? All in

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favor of the motion to ratify the resolution to approve attendance at the 2017 NCPERS Public Pension Funding Forum, please say aye.  
Aye.

MR. KAZANSKY: Aye.

MR. BROWN: Aye.

MR. ORLANDO: Aye.

MS. VICKERS: Aye.

MS. PENNY: Aye.

MR. ADLER: All opposed, please say nay.

Any abstentions? Okay. Motion carries.

MS. REILLY: Next is a resolution for attendance at conference. "The following resolution is presented for consideration and possible adoption: Be it resolved that the Trustees of the Teachers' Retirement Board hereby approve the attendance and participation of the Executive Director and/or her designees and any interested Trustee at the National Council on Teacher Retirement's, NCTR, 95th Annual Conference from October 6th through October 11, 2017."

MR. ADLER: Is there a motion?

MR. BROWN: So moved.

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MR. ADLER: Is there a second?

MS. VICKERS: Second.

MR. ADLER: Motion made and seconded.

Any discussion? All in favor of the motion to attendance at the NCTR conference, please say aye. Aye.

MR. KAZANSKY: Aye.

MR. BROWN: Aye.

MR. ORLANDO: Aye.

MS. VICKERS: Aye.

MS. PENNY: Aye.

MR. ADLER: All opposed, please say nay.

Any abstentions? Okay. Motion carries.

MS. REILLY: Next on the agenda is the calendar.

MR. KAZANSKY: I would like to ask that we waive the reading of the calendar items this time since there are three months' worth and there are three calendars.

MR. ADLER: Can we approve the three months at once, or do you need separate motions for each?

MS. BUDZIK: I think it's fine to approve it all at once.

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2 MS. REILLY: Before we do, do we want to  
3 approve the minutes?

4 MR. ADLER: Oh, is that part of it?

5 Yes.

6 MS. REILLY: So first is the matter of  
7 the approval of the minutes for the investment  
8 meeting of June 5, 2017, the board meeting of  
9 June 15, 2017 --

10 MR. ADLER: We are going to leave it at  
11 that. I think we are going to lay over the  
12 minutes from the Common Investment Meeting  
13 because there were some issues with the  
14 minutes, so I think the various people are  
15 going to correct them and bring them back at  
16 the next meeting. So just those two  
17 investment meetings, June 5th, and the board  
18 meeting June 15th. So is there a motion to  
19 approve those minutes?

20 MR. BROWN: So moved.

21 MR. ADLER: Thank you, Tom. Is there a  
22 second?

23 MS. VICKERS: Second.

24 MR. ADLER: Thank you, Susannah. Any  
25 discussion? Okay. All in favor of the motion

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to approve the minutes for the investment meeting of June 5th and the board meeting of June 15, 2017, please say aye. Aye.

MR. KAZANSKY: Aye.

MR. BROWN: Aye.

MR. ORLANDO: Aye.

MS. VICKERS: Aye.

MS. PENNY: Aye.

MR. ADLER: All opposed, please say nay.

Any abstentions? Great. Motion carries.

MS. REILLY: So next is approval of the calendar.

MR. ADLER: We have months of calendar, right, June, July, and August? Do I have that right or -- is that right? I believe that's right. Or is it July, August, and September?

MS. BUDZIK: I think it's July, August, and September.

MS. VICKERS: Because we had a June meeting.

MR. ADLER: All these calendars were sent out to all the trustees, and so we need a motion to approve the calendar for July, August, and September.

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2 MR. KAZANSKY: So moved.

3 MR. ADLER: Is there a second?

4 MS. VICKERS: Second.

5 MR. ADLER: Any discussion? Great. All  
6 in favor of the motion to approve the calendar  
7 for July, August, and September, 2017, please  
8 say aye. Aye.

9 MR. KAZANSKY: Aye.

10 MR. BROWN: Aye.

11 MR. ORLANDO: Aye.

12 MS. VICKERS: Aye.

13 MS. PENNY: Aye.

14 MR. ADLER: All opposed, please say nay.  
15 Any abstentions? Motion carries.

16 MS. REILLY: Okay. Next is other  
17 business. And we have a presentation for the  
18 Board on cyber security which would be given  
19 by Andrew Bradford.

20 MR. BRADFORD: Thank you. Good  
21 afternoon. So this is kind of casual; it's  
22 not too much presenting --

23 MR. ADLER: Just ask you to speak up.

24 MR. BRADFORD: So I got some slides to  
25 help out with the conversation.

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2 So TRS we have a risk department and an  
3 information security department and we have an  
4 information security program. So my goal is  
5 right now just to take you through what is  
6 information security and cyber security out  
7 there in the real world and what are we doing  
8 at TRS to help with that. So some slides.

9 Not intended to kind of worry you too  
10 much, but I am sure you all see the news,  
11 right? You all know there are things  
12 happening where there are breaches or  
13 information that's been taken or leaked  
14 accidentally and that information is being  
15 used by people. I will put those on the  
16 screen, but you are all thinking Equifax,  
17 right, where nearly half of the population of  
18 the country, their information basically is  
19 now available to bad guys out there.

20 And that's the kind of thing that, you  
21 know, you have to start to think a little bit  
22 differently about information security. Yes,  
23 we have to protect people's information, but  
24 we also have to be aware that a lot of the  
25 information is already available out there as

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2 well. I can probably go find my Social  
3 Security number and date of birth somewhere.

4 So who are we up against? So these are  
5 the four types of -- you know, kind of groups  
6 we are up against. I am sure you heard of  
7 Nation State with Sony; hacktivists where  
8 people go and deface websites because they  
9 don't like the organization; cyber criminals  
10 where they are stealing information for  
11 profit; and also malicious insiders as well.

12 So what are they after? Right? What  
13 are they trying to get? Well, if they are  
14 trying to make money, they are looking for  
15 Social Security numbers, dates of birth,  
16 medical records, addresses. And what can they  
17 do with it? They can fake your identity,  
18 obtain insurance, birth certificates, and it's  
19 become a big deal now with people with these  
20 organizations finding tax returns, getting the  
21 refund before the victim, the innocent person,  
22 actually files their return as well. So this  
23 kind of Social Security numbers, dates of  
24 birth, we call it personally identifiable  
25 information, PII.

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MR. ADLER: Can I ask a question?

MR. BRADFORD: Yes.

MR. ADLER: So TRS has, you know, bank account information as you say because we direct deposit members' checks.

MR. BRADFORD: Yes.

MR. ADLER: If someone were to hack that information, would they be able to pull money out of our bank accounts potentially?

MR. BRADFORD: Something we have to put a lot of controls in place for that as well. So -- but you know, it's not inconceivable but we do have a lot of controls in place.

MR. RAUCCI: John, from our accounts nobody can just go and withdraw money because when we issue a check, we notify the bank before the money goes out the door, so the bank will not make a payment unless they have on record these are the payments we already told them.

MR. ADLER: No, I understand that. I was more concerned with the members. In other words, you know, you have on file every member's bank account, account number, and

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2 routing number in order to direct deposit  
3 their pension check in their account, right?  
4 I mean, every member who gets direct deposit.  
5 So my question is -- it wasn't just posed to  
6 TRS; it would be posed to the City of New York  
7 too who direct deposit checks. Could a cyber  
8 criminal take that information or sell that  
9 information and then somebody could go in and  
10 pull money out? So not that TRS -- I mean,  
11 maybe I should be but I am not really worried  
12 that TRS is going to get money pulled from  
13 your account because of the controls you  
14 discussed. It's more about the members'  
15 vulnerability to being hacked through TRS.  
16 You know, because I bet -- I imagine that  
17 everybody here has had the experience of  
18 fraudulent credit card charges showing up on  
19 your credit card -- I shouldn't say this  
20 publicly -- because it's happened to me at  
21 least half a dozen times, so I just want --  
22 this never happened to me through the bank  
23 account. I am wondering if that is something  
24 that folks can do. I am not sure if I am  
25 asking you, Paul, or asking Andrew.

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2 MS. VICKERS: I would think -- not that  
3 I am an expert. It would be -- you know, a  
4 person's bank account is at many places, so  
5 you know, I pay my credit card with an  
6 automatic payment. We have auto payments all  
7 the time through our checking accounts, so all  
8 of those entities would have the same  
9 vulnerability, and I would hope that the bank  
10 has certain safeguards. So if some strange  
11 type of computer is trying to pull money out  
12 of my account, it's a red flag for them. So I  
13 think it's more on the bank side.

14 MR. ADLER: I hope you are right.

15 MR. BRADFORD: Well, we certainly  
16 consider it confidential information and treat  
17 it that way.

18 MS. REILLY: There is limited access by  
19 TRS employees to that data, so it's not just  
20 anybody at TRS can go in and look at your bank  
21 account information.

22 MR. BRADFORD: We even limit access to  
23 where it's just images of checks. So if  
24 someone wants to be paid electronically, they  
25 send a voided check into us and we can set it

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2 up, but we even limit the ability to see those  
3 checks.

4 So if you are wondering where is cyber  
5 crime right now, the majority of it is through  
6 this thing called "phishing e-mail". I am  
7 sure you all heard of it. Basically you get a  
8 nice e-mail and you are encouraged in some way  
9 to click on a link, right, and then maybe it  
10 will start encrypting your computer and then  
11 ask you for money to be able to get your  
12 computer's files back or maybe it will take  
13 you somewhere and say, you know, maybe you  
14 should give me your password for things or  
15 your credit card number. So this is what's  
16 called phishing, that the encryption is  
17 ransomware and you probably heard it in  
18 combination with bitcoin. For example,  
19 companies that are held ransom, if you pay  
20 this many bitcoins, we will let you have your  
21 data back. So these are the main things that  
22 -- you know, that happen. These are the  
23 threats today.

24 MS. REILLY: Those are through opening  
25 up an e-mail that may look somewhat --

1 Proceedings

2 MR. BRADFORD: Yes. So we have  
3 awareness training in the organization. We  
4 encourage people -- we do phishing tests where  
5 we do annual training where we actually show  
6 phishing attempts and say would you click on  
7 this, is this a good e-mail, right? And we  
8 take it very seriously because it's so easy,  
9 right? I mean, if we can get people to  
10 connect with not doing it for themselves, then  
11 they won't do it at TRS either.

12 So how much does -- you got to know how  
13 much a breach costs. It's okay for an  
14 individual, but what about an organization?  
15 So according to IBM, the average breach costs  
16 about 6 and a half million dollars and the  
17 average cost per record is about 150 dollars.  
18 I think that's a little bit -- I mean depends.  
19 It could be higher, could be lower. And of  
20 course, there are direct costs and indirect  
21 costs. And so in terms of whether you think  
22 is it getting safer, or is it getting worse,  
23 it's getting worse. Okay? Sorry.

24 MR. ORLANDO: Come on, Andrew.

25 MR. BRADFORD: I hate to be the downer.

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2 So this is my favorite slide. Of all  
3 the presentations, it's my favorite slide so  
4 bear with me for a moment. On one side you  
5 got the myth and other side you got the  
6 reality. So we can be 100 percent secure on  
7 our website, for example. No organization is  
8 100 percent secure. Not trying to scare you.  
9 I mean, we do business like this. Everyone  
10 does business like this.

11 We invest in the best-in-class technical  
12 tools and we are safe. We should invest in  
13 the best tools, but we are still not quite  
14 safe. We can build perfect protection. Well,  
15 we do our best, we follow standards, we do the  
16 things that we need to do putting controls in  
17 place, but the most important thing is not  
18 whether you are safe although we should be.  
19 It's how you react. So it's not if a problem  
20 is going to occur. It's when. So we work  
21 closely with risk and IT together to make sure  
22 in all the programs we put together on both  
23 sides that we do our best to prepare in case  
24 something happens. And of course, you want  
25 the best people but you also want to make sure

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2 it's an attitude, it's pervasive throughout  
3 the agency, that everyone is aware of  
4 security. So that's my favorite one.

5 So what are we doing at TRS? Each of  
6 these boxes represents a thing that we do.  
7 It's based upon a framework, a security  
8 framework. There are 27,000 more, but I will  
9 just go through one of them:

10 Information security policy management.  
11 We have information security policies, so  
12 people know what they need to conform to.  
13 They can think how they are going to do that.  
14 When they are coming across a situation, they  
15 can reference it. When we onboard new  
16 employees, we ask them to go through the  
17 policies and we train every year so people are  
18 aware of the policies.

19 So there are 11 others. Not going to go  
20 through them. But maybe I will sneak a little  
21 bit in because on the governance side, that  
22 seems to be an important thing. So we want to  
23 make sure that everyone knows that they are  
24 responsible for information security. So we  
25 have different roles and responsibilities

1 Proceedings

2 within the agency. From Patricia as the head  
3 of the agency to everyone in the agency,  
4 everyone is responsible for information  
5 security.

6 And then just as a follow-up, we are  
7 also audited for this as well, and we do risk  
8 assessments ourselves. So every five years,  
9 the Department of Financial Services at the  
10 State, they audit us. They put an emphasis on  
11 information security along with everything.  
12 Financial audit from New York Pensions every  
13 year. The Office of the Actuary, every three  
14 years you have your audit and they audit us as  
15 well. We have an internal audit department  
16 and we have one person assigned to IT audit,  
17 and you know, they are always doing at least  
18 one per year related to security, and then  
19 five years we also voluntarily find a vendor  
20 that will do a risk assessment for us because  
21 security is changing so much, the industry is  
22 changing so much, you need to bring in some  
23 expert's opinion now and then.

24 So that's the end of the presentation.  
25 If there is any questions, either general or

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2 specific, I could take them now or we can take  
3 them offline later.

4 MR. ADLER: Go ahead, Ray.

5 MR. ORLANDO: Five years seems like a  
6 long time for an external risk assessment. Is  
7 there any thought to moving that more  
8 aggressively given the fact that I think you  
9 said technology is moving quite quickly?

10 MR. BRADFORD: It is moving quite  
11 quickly.

12 MR. ORLANDO: Five years ago I didn't  
13 even have an iPhone.

14 MR. BRADFORD: I think you are right. I  
15 think the next five-year anniversary is next  
16 fiscal year, so it could be soon so I don't  
17 think you have to wait too long.

18 MR. ADLER: Other questions? I have  
19 one. There is -- and I am not going -- I am  
20 going to bungle the specifics, but there is  
21 like a city-wide information security group,  
22 committee, something or other. I think it's  
23 coordinated by DoITT, but I am not 100 percent  
24 sure about that. Is TRS part of that?

25 MS. HANHARAN: Yes, we are. The

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2 city-wide COC, City Operation Center, and we  
3 got the phishing information just the other  
4 day like everybody else. So yes, we are.

5 MR. BRADFORD: A lot of our security  
6 policies are based on DoITT policy.

7 MR. ADLER: I want to make sure TRS  
8 wasn't going at it alone because obviously  
9 this is an issue that everybody in the city is  
10 concerned about and you know, we all should be  
11 and I have seen some of those phishing e-mails  
12 that have come through, you know, that are  
13 concerning.

14 MR. BRADFORD: I got one just yesterday.

15 MR. ADLER: A real phish?

16 MR. BRADFORD: A real phish, basically  
17 saying in 30 minutes your money should arrive.  
18 Just click here.

19 MR. ORLANDO: From John's credit card  
20 account?

21 MS. VICKERS: Bank account.

22 MR. ADLER: I got one a couple days ago  
23 that said join the Department of Finance's  
24 LinkedIn group and there actually is a  
25 Department of Finance LinkedIn group. Now, I

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am confessing and I am on TV and all that. I don't really use LinkedIn so I didn't click on it, but then someone said I think that was a phishing thing and I looked at the real LinkedIn thing that comes to my personal e-mail and they really did look different. Slightly different. I think in many ways we count on these phishing things being ridiculous or crazy or having some misspellings or whatever, but they are going to up their game and pretty soon you wouldn't be able to tell the difference and then it's really going to be hard. You really have to train people, as you said, to not click on these things.

MR. BRADFORD: You are right.

MS. REILLY: It seems like sometimes they will use a contact that you have and create this e-mail that they tell you to click, but I mean, whenever I see it's saying for me to click I don't click, but I did go to the conference and I think this is something that we can think about. I loved it when someone was telling me at his company, they

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2 actually purposely send out phishing e-mails  
3 and then say report to HR immediately because  
4 you violated our --

5 MR. ADLER: The Department of Finance  
6 does it too and they are really trying to  
7 calculate what the click rate is so they  
8 understand the scope of the problem, and you  
9 know, it's -- I shouldn't say publicly what  
10 the scope of the problem is, but let me just  
11 say there is a problem.

12 MS. REILLY: They make it look like as  
13 if it's somebody you know who is sending it to  
14 you, but whenever it says oh, you know,  
15 somebody I know that says click here, they  
16 wouldn't -- it's -- I innately know somebody  
17 is not going to send me an e-mail just saying  
18 that. They would say how are you or  
19 something, but they may get that sophisticated  
20 where they put some sophisticated how are you  
21 doing, I saw this great thing, click here and  
22 then you might. Not to give them any ideas.  
23 So thank you Andrew.

24 MR. ADLER: Thank you, Andrew.

25 MS. REILLY: So next on the calendar is

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2 you all received a copy of the independent  
3 validation and verification for the  
4 modernization program, a report from our  
5 validation verification vendor. So if you  
6 have any questions over the report that was  
7 provided, I would be happy to answer them.

8 MR. ADLER: So I just had a couple of  
9 questions. Thank you for giving me a new  
10 copy.

11 First of all, let me just start by  
12 saying that my overall perception for having  
13 gone through this report was that I was really  
14 impressed with the job that TRS is doing on  
15 the modernization project that, you know, you  
16 go through this and look at -- there is so  
17 much detail about, you know, the different  
18 phases and how -- what the strategies are for  
19 risk mitigation and you know, the way TRS is  
20 living up to its objectives and all that. I  
21 really came away very, very impressed. So let  
22 me just say that.

23 MS. REILLY: Thank you.

24 MR. ADLER: I did have two questions I  
25 wanted to raise. So one is about the



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2 processes, and now we are reaching the point  
3 where we are going to really start affecting  
4 people's jobs and whether or not they are  
5 going to be in that job title that they are in  
6 or how that job is going to change.

7 So as we move from the general and we  
8 have our quarterly states of modernization for  
9 the organization, we have an internal website,  
10 we send out e-mail blasts, now it's going to  
11 get more personal. Right? The organizational  
12 change management is going to start getting  
13 down to the individual level and start  
14 managing these people, adopting and buying  
15 into the change that's happening in their  
16 everyday professional lives. And the  
17 strategies and the personnel we have employed  
18 to date have been great for that  
19 organizational level, but now we are looking  
20 to bring in the expertise and the experience  
21 to help us deal with this very, you know,  
22 one-on-one staff,  
23 it's-going-to-affect-eight-hours-out-of-my-day  
24 change that we need them to buy into happily.

25 And to tell the truth, we are

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2 considering is there somebody -- do we need  
3 this as a full-time job on the staff, or do we  
4 really need to bring in the right resources on  
5 a consultant basis because once we get through  
6 the implementation of Aspen and we have all of  
7 the changes made, people are in the future  
8 jobs that we are projecting are going to be  
9 out there, do we really need to have this  
10 person on staff.

11 So now we are thinking back again to  
12 this is probably a consultant resource which  
13 is one of the reasons why we didn't pull the  
14 trigger on the hiring, and I think to tell the  
15 truth, Meir who is the IV & V consultant we  
16 consult with, I think he probably heard that  
17 we were going to hire, but I think what we had  
18 talked about was maybe we were going to hire,  
19 maybe we were going to bring in consultant  
20 resources and we were unsure at that point.  
21 So it is one of the things that I have in my  
22 notes to talk with him about next time we get  
23 together.

24 MR. ADLER: So sounds like you are  
25 leaning more towards going back to consultant

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2 because it does sound from your description  
3 that as the rubber hits the road, as you put  
4 it, how you address this with workers is  
5 really a major concern and I would think that  
6 would be the case.

7 MR. GRAY: It is the case, and when we  
8 say go back to the consultant, I think what we  
9 are looking for is we are going to consulting  
10 resources but not necessarily the consultant  
11 we used first.

12 MR. ADLER: I understand. I meant go  
13 back to the idea of a consultant as opposed to  
14 hiring someone.

15 MR. GRAY: Yes.

16 MS. REILLY: But I do want to point out  
17 that a lot of our change management has been  
18 undertaken by our HR department, so they are  
19 running what we do -- Bob mentioned state of  
20 modernization. So every quarter we have  
21 sessions with the whole entire organization to  
22 let them know where we are, what's going on,  
23 what's new, to keep people abreast. We also  
24 do post groups which our HR department is  
25 heading up. We do all different -- we do

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2 different programs to get our managers to be  
3 able to manage the change and to be able to  
4 help their staff to make the change. So our  
5 HR department is very involved, but it's the  
6 one area of like -- I guess it's the  
7 psychology of change to the individual for  
8 their everyday work which is I think beyond  
9 our expertise, and that's why we think we need  
10 to go out and get somebody who is, you know,  
11 an expert in that field to help us navigate  
12 what can be a pretty rocky time in people's  
13 lives.

14 MR. ADLER: Yes. I support that.

15 MR. GRAY: And just you pointed out in  
16 the report, as with everything on this  
17 project, it's a blended team approach. We  
18 haven't done this -- Patricia pointed out it's  
19 not that we brought in consultants to do OCI.  
20 We brought in an organizational change  
21 management consultant to work with us and  
22 collaborate with us, and that's the approach  
23 going forward too. We will bring in this  
24 additional expertise to collaborate as part of  
25 a blended team of internal staff and

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2 consulting to get the job done.

3 MR. ADLER: Okay. And then the other  
4 question I had was -- let me see if I get all  
5 the initials here. It was the thing about  
6 strategic communications input and LWRL.  
7 Meir -- is that the person's name?

8 MS. REILLY: Meir.

9 MR. ADLER: Sorry. Meir. Sounds like  
10 that the idea was to have the public  
11 information officer -- office, sorry, provide  
12 the internal communications manager with input  
13 and I just want to ask about that.

14 MS. REILLY: That's funny because we  
15 talked about this today actually.

16 MR. GRAY: I think it's the other way  
17 around. And you know, he -- you are asking  
18 about it probably because you have seen it's  
19 come up several audits in a row, and every  
20 time he breaks it up I sit down and have a  
21 talk with him. And the talk goes like this:  
22 Meir, we have a public information office  
23 whose job it is to be public facing. We hire  
24 these people and they have the experience  
25 where interfacing with our members, talking to

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2 our members --

3 MS. REILLY: Writing letters.

4 MR. GRAY: -- writing letters to them.

5 They are the one who design the web  
6 information, the error messages in our  
7 websites, all part of this public facing group  
8 we have called the public information office.  
9 We recently hired an internal communications  
10 person to help us deal with how do the  
11 executives get messages through to the  
12 internal staff in TRS. So this communications  
13 person that we hired is really inward facing  
14 and the public information office is kind of  
15 outward facing. So I have said to Meir, I  
16 know you have this recommendation, but you  
17 know, I disagree with it. I think that we are  
18 not going to get a lot of value by having  
19 somebody with internal facing experience for  
20 how to trickle messages down through an  
21 organization change, you know, giving advice  
22 to the people who are well-versed in how to  
23 get public communication out to your customer  
24 base. So we did talk about it this morning  
25 because I said I just am going to keep having

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2 this chat with him every quarter until the end  
3 of the project.

4 MR. ADLER: Fair enough. And so in your  
5 conversation with him, basically you disagree?

6 MR. GRAY: And yes. And you know what?  
7 He is allowed to disagree. He is reporting to  
8 you. So basically he keeps putting it out  
9 there that he still thinks it's a good idea.

10 MR. ADLER: Fair enough. Thank you,  
11 Bob. That was all that I had. I don't know  
12 if anybody else had anything.

13 MS. REILLY: Anybody else?

14 MR. ADLER: Okay.

15 MS. REILLY: Well, thank you.

16 So next on the agenda is questions or  
17 comments from the public. Seeing none --

18 MR. BROWN: Patricia, I have something  
19 to say. We all know that on August 4th, TRS  
20 celebrated it's 100th anniversary so we would  
21 like to take this opportunity to say happy  
22 birthday to TRS and thank you.

23 Thank you for always being there for our  
24 members, and we know that you go above and  
25 beyond, especially according to what Kavita

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was talking about earlier, and we have a lot more members than we had in 1917. We have about 220,000 members, and in the last couple of years we have gotten to know a lot of the employees. We have gotten to know a lot of members, employees of Teachers' Retirement System, and I know how hard the employees work and I know how dedicated they are. It's amazing how you always have the interest of our members and we want to thank you from the bottom of our hearts for doing the jobs that you do, always looking out for our members, and I look forward to the next 100. Thank you Thad, Patricia, and everybody. We feel such a part of TRS.

MS. REILLY: Thank you.

MR. BROWN: So thank you.

MR. ADLER: Thank you, Tom. Okay.

Any other business for the board today?

So I think a motion to adjourn would be in order. Is there a motion to adjourn?

MR. KAZANSKY: So moved.

MR. ADLER: Is there a second?

MS. VICKERS: Second.

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MR. ADLER: Any discussion? All in favor, please say aye. Aye.

MR. KAZANSKY: Aye.

MR. BROWN: Aye.

MR. ORLANDO: Aye.

MS. VICKERS: Aye.

MS. PENNY: Aye.

MR. ADLER: All opposed, please say nay. Any abstentions? Okay. The meeting is adjourned. Thank you.

(Time noted: 4:25 p.m.)

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I, YAFFA KAPLAN, a Notary Public  
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IN WITNESS WHEREOF, I have hereunto  
set my hand this 8th day of October,  
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YAFFA KAPLAN