

VERBATIM PROCEEDINGS

CITY OF NEW HAVEN
CIVIL SERVICE COMMISSION

IN RE:

FIRE CAPTAIN AND LIEUTENANT PROMOTIONAL EXAMS

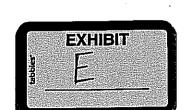
MARCH 11, 2004

KENNEDY MITCHELL HALL OF RECORDS

200 ORANGE STREET

NEW HAVEN, CONNECTICUT

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1	Continued Verbatim Proceedings of a
2	Hearing of the City of New Haven, Civil Service
3	Commission, In re: Fire Captain and Lieutenant
4	Promotional Exams, held March 11, 2004, at 5:45 P.M., at
5	the Kennedy Mitchell Hall of Records, 200 Orange Street,
6	New Haven, Connecticut
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12	CHAIRPERSON JAMES SEGALOFF: Okay. Good
13	evening, everybody. As most of you know, I assume, we
14	looked into a number of people whose names were presented
15	to us to give us some testimony and some insight into
16	some of the issues we've been dealing with. And we
17	selected three people. And they're two of them are
18	here with us physically today and Dr. Hornick is in
19	Texas?
20	MS. FRANCINE HARCOURT CAPLAN: Colorado.
21	CHAIRPERSON SEGALOFF: Colorado. Aurora,
22	Colorado. And we're going to do this by phone with him.
23	And then we'll talk to Mr. Lewis and Dr. Helms.
24	As you all know, everybody, this is not a

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2 DR. HORNICK: Sure. I'd be happy to do 3 I received my PhD in 1979 from Texas Christian so. 4 University. My degree is in psychology. My emphasis was 5 in statistical measurement and industrial/organizational psychology. And I've been practicing in my consulting 6 7 business since 1980. So that's almost 25 years. And we 8 have worked almost exclusively in the public safety 9 arena.

We do entry-level and promotional testing procedures for clients all over the country, doing both law enforcement and firefighting selection. We work with counties. We work with municipalities. We've worked with several police and state agencies. For example, we just developed and conducted the entry-level selection process for the Rhode Island State Police. We've worked with the Pennsylvania State Police and many, many others.

A little bit about some of the things that I guess would describe us and me. We have been recognized by our profession as —we were given the highest award from our profession for innovative procedures in the area of applied psychology, in essence, recognizing us with a lifetime award for the work that we've done in entry-level testing in firefighting and in

Τ	law enforcement. They examined some research that we had
2	done with our entry-level test and identified our
3	research for this highly prestigious award.
4	I've also served as an expert witness in
5	several court cases. I have served to help
6	municipalities defend testing or selection procedures
7	that others have created. I've never had any procedure
8	in 25 years that I have designed or conducted be
9	challenged legally. But I have been asked on many
10	occasions to serve as an expert to help cities to defend
11	procedures that others have done or that they themselves
12	have done.
13	But I've also served as an expert in
14	evaluating selection procedures from the plaintiff side.
15	I've served as an expert for unions in a couple of
16	instances where the procedures that we were arguing with
17	a particular municipality didn't meet the standards and
18	asked if I might weigh in on some of those issues.
19	I have also served as an expert with the
20	Department of Justice on behalf of the United States in a
21	landmark case of discrimination regarding in this
22	particular case it was specifically focused on
23	firefighter entry-level selection.
24	So we have a pretty broad-based level of

1	experience with these kinds of issues. I think if I
2	could say in a sentence, we are probably best known for
3	our ability to be able to forge partnerships and build
4	bridges between I guess I would say concerned parties.
5	I'm quite aware from the information we've been sent that
6	right now we're in a fairly contentious environment in
7	New Haven and there are a lot of people who have certain
8	belief systems that are impacting how these test results
9	are being viewed. And it tells me, based on what I've
10	seen, that there needs to be some bridge-building here
11	because no one, I don't believe, intentionally tried to
12	create a problem. But there are issues that I'm sure in
13	the next hour we're going to be talking about.
14	CHAIRPERSON SEGALOFF: Let me just ask you
15	this. Have you had experience dealing with communities
16	that are somewhat similar to New Haven in terms of
17	demographics?
18	DR. HORNICK: Oh, absolutely. We've
19	worked
20	CHAIRPERSON SEGALOFF: Could you tell us a
21	couple of those communities?
22	DR. HORNICK: Sure. We work a lot in the
23	Atlanta region. There are several large counties down
24	there that have similar demographics to yours. We have

- worked, as I said, with the Rhode Island State Police and
 with Pennsylvania State Police.
- 3 CHAIRPERSON SEGALOFF: Okay. You've been
 4 given some information, from what I understand, regarding
 5 the situation here in New Haven?
- DR. HORNICK: Yes. We have quite a bit of information.

CHAIRPERSON SEGALOFF: Okay. My sense is, simply as an open-ended question — if you just want to speak to some of the issues that jump out at you and give us your particular views as you see they would be useful to us in pursuing this question of whether or not to certify this eligibility list?

DR. HORNICK: Okay. Unfortunately, this is kind of being viewed as an all-or-none decision. And I do believe that there are some other ways over time that we can address this more effectively.

Ultimately, what we were sent were some statistical information, if you will, final scores, for applicants. I believe there were 77 applicants who took the Lieutenant's exam and 40-something that took the Captain's exam. And we were given the final scores on each of the two test components, the oral board and the written test, for each of those two groups. And then the

1	computation of the final score, which, according to my
2	understanding, the weighting and combining of those
3	scores is dictated by the Civil Service Rules. Is that
4	correct?
5	CHAIRPERSON SEGALOFF: Yes.
6	DR. HORNICK: Okay. Very briefly, what we
7	did was do some standard statistical calculations on that
8	data to determine what type of adverse impact existed in
9	the test scores with regard to ethnic minorities.
10	Because there were, I think, only two females in the
11	group, it was impossible to look at women's performance
12	in a group analysis. So we did not look at that.
13	And I certainly could go into some of
14	those statistical analyses. But if I could just
15	summarize what we saw, we're seeing relatively high
16	adverse impact. And let me define that because, for the
17	sake of everyone involved, we may not all have the same
18	understanding of what we mean by adverse impact.
19	In our profession and in the legal
20	community, we identify a concept called adverse impact
21	which statistically determines how well minorities
22`	perform on a testing procedure in comparison to whites.
23	Normally, whites outperform ethnic minorities on the

majority of standardized testing procedures. This is, in

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fact, the case with the data that we've seen in New
Haven.

I'm a little surprised at how much adverse impact there is in these tests. And I hope at some point here we'll be talking in detail about that. But my conclusion is that we did have significant adverse impact. Some of it is fairly typical of what we've seen in other areas of the countries and other tests that people have developed. But in other ways it is somewhat worse than what we're typically seeing in the profession practiced by others.

I would add that we are a -- well, let me put it a bit differently. We have competed with the consultant that you chose to do this process in other arenas and other areas of the country. So we are a direct competitor of theirs. And I want you to understand that I'm not attempting to accuse or attack I/O Solutions in this process. I'm simply reporting what that data shows.

We find significantly and dramatically less adverse impact in most of the test procedures that we design. But I'm not sure that's a fair comparison if you want to look at it in terms of what's typically done by other companies in our profession.

1	Let me stop there maybe and see what else
2	I can do here. Because I could go on for a long time
3	here.
4	MS. CAPLAN: Dr. Hornick?
5	DR. HORNICK: Yes?
6	MS. CAPLAN: This is Francine Caplan. Did
7	you get a chance to beside the statistics that you
8	looked over, did you get a chance to look over the actual
9	test?
10	DR. HORNICK: No. I have not had time to
11	study the test at length or in detail. We received these
12	by Federal Express about mid-morning today. I have
13	looked through them and looked a little bit at them. But
14	I have not done an in-depth analysis of any of the
15	specific items or pieces of that.
16	CHAIRPERSON SEGALOFF: And you understand
17	we can't discuss in open session here any specific
18	questions. We're all subject to confidentiality
19	agreements. But we certainly can discuss if you think
20	it's useful in a general sense the nature of the
21	questions or the results certainly from the answers to
22	those questions.
23	DR. HORNICK: Sure. On a broad scope, the
24	adverse impact on the written exam was somewhat higher

1 but generally in the range that we've seen 2 professionally. I don't want to go into a specific 3 statistic because I think I'm just going to lose most 4 people. But there is an index that is typically 5 calculated that compares the average performance, for 6 example, of African-Americans compared to the white 7 population or Caucasian population that took the exam. 8 You can also compare Hispanics or Latinos to that white 9 population. That statistic is called a "D", as in dog, 10 statistic. And it shows numbers that are at the high end 11 of what we have seen with traditional cognitive testing 12 elements. 13 The oral board had much higher adverse 14 impact, if you will, against the Latino population that 15 took the exam than I would have expected to see. And I 16 think in comparison to some of the tests in the past, you 17 probably have seen less from some of the data that I saw, 18 I don't have any specific information from previous 19 years. But I think you all are a bit surprised as well 20 that it had as much adverse impact as it did. 21 · CHAIRPERSON SEGALOFF: So let me ask you 22 How do you explain the adverse impact concept 23 maybe generally? And then specifically, how do you

explain the fact that the adverse impact here, from what

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- you've just said, seems to be more dramatic than what
 you've seen in other situations?

 DR. HORNICK: I'm not sure that I can
- explain it. What I would say is you are wedded at this 4 5 point to test components. For example, I believe -- and 6 .I have not seen your Civil Service Rules. So I apologize 7 for my ignorance here. But I believe that your Civil 8 Service Rules dictate that you must administer a written job knowledge test as one element in this promotional 9 process and that you must administer an oral board of 10 some sort, a structured oral interview, as a second 11 12 component. Is that correct?
- 13 CHAIRPERSON SEGALOFF: I assume that's so.

 14 I know 40 percent of the test score was related to the

 15 oral piece and 60 percent to the written.

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DR. HORNICK: Right. Well, first of all, let's talk a little bit about why I think there is adverse impact in the test. One of them is I think you ought to look as an agency, as an organization, as a community and as a department at perhaps different types of testing procedures that are much more valid in terms of identifying the best potential supervisors in your fire department.

24 For example, for Lieutenants and Captains,

1	it is a first-level and second-level supervisory
2	position. The Captain and Lieutenant are fairly common
3	overlapping knowledge, skills and abilities that are
4	required to perform in them.
5	I've spoken to at least 10,000, maybe
6	15,000, firefighters in group settings in my consulting
7	practice and I have never one time ever had anyone in the
8	fire service say to me, "Well, the person who answers
9	gets the highest score on a written job knowledge,
10	multiple-guess test makes the best company officer." We
11	know that it's not as valid as other procedures that
12	exist.
13	However, given your Civil Service Rules,
14	you are somewhat tied to that procedure as the process
15	that you must use for identifying people for promotion.
16	But there's a couple of observations I
17	could make, not specific to the test itself and items in
18	it, but to the process that you have used. I noted in
19	the literature that Tina sent that the test was not
20	customized to the New Haven Fire Department, Fire and
21	Emergency Medical Services.
22 -	A VOICE: Yes, it was.
23	CHAIRPERSON SEGALOFF: Actually, it was,
24	Dr. Hornick, I don't know what you got. But we did

1 the I/OC group did customize it, based on the information we have, that they -- sent questionnaires to all the 2 3 Lieutenants and Captains and dealt -- and I've got a -well, that's -- everything that we've got here shows that 4 5 in this case it was customized. Unless I'm somewhat 6 mistaken. Well, is it his opinion that 7 MS. TIRADO: it wasn't customized? Or is --8 9 CHAIRPERSON SEGALOFF: The question was, 10 Dr. Hornick, is it your opinion it wasn't customized or was that just --11 12 DR. HORNICK: It's based on several Your procedure apparently be design precluded 13 anyone from within the organization reviewing the test 14 15 items. 16 MS. CAPLAN: Say that again? 17 DR. HORNICK: You had no internal members 18 of the department, subject matter experts from within the department, reviewing the test content. And in some of 19 the newspaper articles and other things we noted there 20 were several criticisms by candidates levied about items 21 22 not being relevant to the department. 23 By not having anyone from within the

department review the items you inevitably get things in

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- there that test for processes and procedures that don't necessarily match up into the department.
- MS. CAPLAN: But you didn't -- you didn't

 get -- you weren't able to take -- did you take a look at

 some of the questions on the test?

DR. HORNICK: Not at that level. So I'm only drawing conclusions from what I've read and the material that I've received. But let's not worry about the — maybe it's the term "customized" that is bothering all of you.

The bottom -- the bottom line of what I'm trying to say is that there are different reasons for why the adverse impact occurs. And I suspect that some of the criticisms that have been levied by candidates to the test may or may not bear fruit when one looks at the actual items.

If -- in my own consulting practice, we like to have a panel of subject matter experts from within the department who have signed confidentiality agreements to actually look at the items to make sure that the terminology and the equipment that's being identified from standardized reading sources apply to the department. So I think that might be one concern that we have.

1	I think there are probably several other
2	issues that are much more in-depth than this discussion
3	would allow, to talk about why we traditionally see
4	adverse impact in tests.
5	MS. TIRADO: Did that happen? Did fire
6	department personnel have an opportunity to look at the
7	test?
8	MS. MARCANO: No. There was no internal
9	subject matter expert review. The internal data came by
10	way of job analysis interviews and job analysis
11	questionnaires that were distributed to the department.
12	CHAIRPERSON SEGALOFF: What was done here,
13	from what information we have, by the consultant in
14	preparing this exam was that he started out with a or
15	used a job analysis questionnaire which they had
16	developed and apparently provided to all the Lieutenants
17	and all the the sitting Lieutenants and sitting
18	Captains and got back, as I under from what I can see
19	here, a response from most of them. And then he went
20	outside of at least the New Haven area, in one case to
21	outside of it, to Atlanta, in another case to a city
22	apparently north of Connecticut.
23	I guess what I'd like to hear you say or
24	hear your opinion is that other than the fact that

1	maybe there should have been, in your view, some more
2	input, if you will, from the local people, what else do
3	you see maybe could have been done differently that would
4	have and would it changed in your opinion, changed
5	the result here, this adverse impact that we've got?
6	DR. HORNICK: Would what have changed my
7	opinion? Within your procedure
8	CHAIRPERSON SEGALOFF: We possibly if
9	we had done what you suggested and I'm not believe
10	me, I'm just we're just trying to get a sense of your
11	opinion. I'm certainly not trying to trick you. But
12	what I'm trying to understand is that from what I heard
13	you say is that it one thing that appears to you that
14	did not happen here is we did not get local participation
15	in the sense that you've maybe seen it in other
16	communities in developing the test. Is that is that
17	right?
18	MR. WEBBER: A fair statement?
19	DR. HORNICK: That's an example. I'm not
20	saying that that caused it.
21	MR. WEBBER: Okay.
22	DR. HORNICK: Adverse impact in what we
23	call cognitive skill testing has been in existence since
24	the beginning of testing in our profession. There are

1	there is information and literature out there that has
2	helped to identify ways to minimize some of that. But
3	it's going to it would be very difficult for a
4	psychologist, even someone like myself, to look at each
5	individual item and say let me put this differently.
6	There's an outdated term in psychology called face
7	validity or facially neutral evaluations of tests. And
8	when one looks at a test and tries to figure out if the
9	language has some bias in it, that's a very difficult
10	thing to evaluate. And it's not a very crucial process
11	to go through.
12	What I think we ought to be ought to be
13	talking about here is the broader issue of how your
14	procedures and your rules and the types of tests that you
15	are using are contributing to that adverse impact. I'm
16	not suggesting that I/O Solutions somehow created a test
17	that had adverse impacts that it should not have had.
18	MS. CAPLAN: Well, Dr. Hornick, obviously
19	the future we're going to have to look to the future.
20	The City will have to look itself. But right now as a
21	Commission, we have to deal with this particular this and
22	whether to
23	CHAIRPERSON SEGALOFF: Certify.
24	MS. CAPLAN: certify it or not. So T

guess what we want to know from you -- and you said you didn't read every single question. But -- but what are you actually -- what is your conclusion when you say about the adverse impact and that you felt it was a little bit more severe. What is your conclusion? Can you give us any conclusion to our particular test? Not so much what we can do in the future, but what we can do -- what would your recommendation be?

DR. HORNICK: There are other alternatives to just the written job knowledge that you used in that initial stage and to the oral interview process that I believe would have demonstrated less adverse impacts, that I believe would have increased the likelihood of getting the best candidates at the top of the list so you would have identified the best possible people and you would not have had artifacts in the development of the test that contributed to the adverse impact that you received.

MS. CAPLAN: Well --

DR. HORNICK: I mean, for example, you were not using an assessment center process, which is essentially an opportunity for candidates to demonstrate their knowledge of the, if you will, SOP's, standard operating procedures, to demonstrate how they would

Т.	address a particular problem as opposed to just verbally
2	saying it or identifying the correct option on a written
3	test.
4	For example, there's concepts of situation
5	judgment tests that can be developed and designed,
6	customized within organizations that demonstrate
7	dramatically less adverse impacts that are very well
8	received by candidates that test the ability to apply
9	their knowledge as opposed to just memorize and give the
10	correct answer from a multiple choice, recognizing what's
11.	the correct answer from a particular reading source.
12	So there's other procedures that I think
13	might serve your needs better.
14	With regard to the question all-or-none,
15	do we certify the test or do we not certify the test
16	how does the expression go? You're darned if you do and
17	you're darned if you don't.
18	The newspaper articles that we have seen
19	indicate that there are threats of lawsuits regardless of
20	what approach you take. I think you need to weigh what
21	your values are and go with the best possible decision.
22	There is adverse impact in the test. That
23	will be identified in any proceeding that you have. You
24	will have industrial psychology experts, if it goes to

court, on both sides. And it will not be a pretty or 1 2 comfortable position for anyone to be in. 3 I think what we ought to be doing is 4 perhaps looking at a way to utilize the investment of your resources already. You've done the test. 5 6 appears to be a reasonably good test, although it does 7 have adverse impact. So perhaps the only choice you will have in the end is to certify the list as it exists and 8 9 perhaps only use it for the minimum that's required by your rules and look at a process where all of the 10 11 different groups can weigh in and be involved in the decision to look at some other alternative ways to deal 12 13 with these issues. Rewriting the Civil Service Rules, if 14 necessary, that have everyone's input so that we come up 15 with a process that gives a more valid way of identifying 16 candidates in the future while also minimizing 17 disparities that typically occur between ethnic minority performance on these types of tests and Caucasians. 18 19 Does that help at all? 20 MR. WEBBER: No. 21 MS. CAPLAN: We understand all those No. 22 And we've ourselves thought about that for the 23 But right now we're dealing with what's in front future. of us. Obviously, Civil Service reform is something that 24

- 1 has to be talked about in the future. But we're not dealing with it right this moment. We really wanted to 2 take testimony from you and a few other experts on the 3 4 test and on disparate results, adverse impact, and 5 particularly this test. 6 CHAIRPERSON SEGALOFF: I'm wondering if on 7 the oral part, Dr. Hornick -- as I understand it, there 8 were three assessors and they were from out-of-state and 9 there was generally an attempt to make one Hispanic, one Caucasian and one African-American sitting as assessors. 10 11 Do you have any comment on that? Or is there a different 12 way it could have been done or a better way or some other 13 concept that's used? I understood you talked about maybe in some way testing leadership or skills in a -- in a 14 little different fashion. But could you help us on that 15 16 part of the exam? 17 DR. HORNICK: I think there are other ways to identify those skills. But the composition of your 18 19 oral boards I don't believe can be called into question. 20 You had -- from the information I had received, you had 21 very good diversity in the representation on those
 - But, yes, I think a person's leadership

panels. And I don't think that's a concern or issue that

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you have.

1 skills, their command presence, their interpersonal 2 skills, their management skills, their tactical skills 3 could have been identified and evaluated in a much more 4 appropriate way that would have tested their real skills 5 and not necessarily their ability to in two-and-a-half minutes describe. 6 7 This is a -- this is really not the place 8 in this phone call to talk about some of those alternatives. But I think there are much better 9 10 procedures for you to be able to identify those skills. 11 But I do not think that the composition of 12 those panels was a problem. No. 13 CHAIRPERSON SEGALOFF: I -- Mal? 14° MR. WEBBER: Yeah. There's a mixture of 15 administrative expertise and expertise within the fire 16 department fighting fires in the test. Did you think the 17 mixture was correct? 18 DR. HORNICK: I haven't seen the job analysis data. 19 20 MR. WEBBER: Okay. 21 There were two different DR. HORNICK: 22 tests. Right? One for Lieutenant and Captain. 23 not prepared to really answer that. If (Indiscernible) of the job analysis and the weighting of the items was 24

1 done appropriately, then I would quess the weight that 2 the consultant identified would have been the correct 3 It appears -- and, again, I have not studied these 4 items in any detail. It did appear to have some pretty 5 complex descriptions, for example, for the tactical 6 items, which would make it difficult for someone to 7 really interpret and understand that without other 8 information. For example, pictures to help identify what 9 it is that the words are trying to describe. And maybe that contributed to your adverse impact. That's pretty 10 11 hard to judge from here in Denver with only having had a 12 little bit of time to look over those actual exams. 13 Did I answer your question? 14 CHAIRPERSON SEGALOFF: Sure. Yes. Did 15 you answer my question? 16 MR. WEBBER: Yes. Yeah. 17 CHAIRPERSON SEGALOFF: Okay. 18 MR. WEBBER: What you could do with it. 19 CHAIRPERSON SEGALOFF: Okav. Anv other 20 questions? 21 We're all set, I think. 22 MS. MARCANO: I just want to correct for 23 the record that the procedures that Dr. Hornick talked of 24 earlier --

1	CHAIRPERSON SEGALOFF: You mean the 60/40?
2	MS. MARCANO: insofar as 60/40 is not
3	mandated by our Civil Service Rules but an agreement
4	entered into between the Fire Union Local 825 and the
5	City back in the mid-80's that we're still operating
6	under.
7	CHAIRPERSON SEGALOFF: And that's the
8	60/40 split for
9	MS. MARCANO: Correct.
10	MS. CAPLAN: Yes.
11	CHAIRPERSON SEGALOFF: Okay. I think
12	we're all set. Thank you very much. We appreciate that
13	you made yourself available on such a short notice. And
14	we thank you.
15	DR. HORNICK: Okay.
16	CHAIRPERSON SEGALOFF: If you'd like to
17	add anything to sum up or any other points of view that
18	you think are helpful, we're happy to hear it.
19	DR. HORNICK: Okay. Well, I think there
20	are a few things that maybe came through in this. Do you
21	want to talk about recommendations for the future? You
22	seem to want to focus this more on
23	CHAIRPERSON SEGALOFF: We're just trying
24	to, at this point, deal with the present.

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1	MR. WEBBER: The present. We've got
2	enough.
3	CHAIRPERSON SEGALOFF: Which we have to
4	deal with. It might be very helpful once this is all
5	completed that we enter into some discussions about the
´ 6	future. But right now, I think we're just getting
7	through the present.
8	DR. HORNICK: I certainly would offer any
9	help that I could give you here. I think there's not a
10	lot that we could do at this point on our end other than
11	serve as advice, in an advice capacity if we can. So,
12	again, I think there are some things that we need to look
13	at for the future. And we certainly would like to help
14	you if we can in that regard.
15	CHAIRPERSON SEGALOFF: Okay. Thank you
16	very much.
17	MR. WEBBER: Thank you.
18	CHAIRPERSON SEGALOFF: Good night.
19	(Whereupon, the phone call was concluded.)
20	CHAIRPERSON SEGALOFF: Do we have an
21	agenda of speakers in terms of
22	MS. CAPLAN: Yeah. Here it is.
23	MS. BURGETT: Mr. Lewis is next.
24	CHAIRPERSON SEGALOFF: Okay. Mr. Lewis?

1	MR. LEWIS: And my only question would be
2	were those materials available for everyone at the same
3	time. And that's not for you to answer. That's just put
4	out there.
5	In looking at some of the articles that I
6	read, everyone didn't have access at the same time to the
7	materials. That may be just something that you should
8	consider.
9	A second question I looked at or pondered
10	was the time it took or the availability for or the
11	eligibility of a person to take the Lieutenant's exam.
12	And I understand they had to have 36 months on the
13	department and then they became eligible.
14	And the reason I ask that question is
15	because a lot of the questions or a number of the
16	questions on the Lieutenant's exam dealt with issues that
17	an apparatus driver needed to know. And if a person, an
18	individual who had not had the training or had not had an
19	opportunity to drive the apparatus, they may not be aware
20	of those questions. That put them somewhat at a
21	disadvantage. If they didn't have an opportunity to
22	drive, if they were not a driver, if they did not receive

That would hold true as well, but not as

the training, I think they were somewhat disadvantaged.

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- 1 set. Dr. Helms? Good evening.
- DR. HELMS: Good evening.
- 3 CHAIRPERSON SEGALOFF: We'll do the same
- format, Dr. Helms. We've got a lot of your literature.
- 5 But it's pretty hard to pore through it all. But maybe
- 6 you could tell us a little bit about yourself and then
- 7 we'll pick up from there.
- B DR. HELMS: All right. My name is Janet
- 9 Helms. I'm a professor of counseling psychology and
- 10 Director of the Institute for the Study and Promotion of
- 11 Race and Culture at Boston College. My primary area of
- 12 expertise is in race and culture, particularly race and
- 13 culture as they influence performance on tests and other
- 14 assessment procedures.
- I have served on various testing
- organizations, test development organizations, including
- 17 -- I was joint-chair of the Joint Committee on Testing
- 18 Practices, which is the national organization that
- develops standardized tests in this country. I've also
- 20 been a member of the Committee on Psychology Testing for
- 21 the American Psychological Association.
- 22 My experience is not with firefighters per
- 23 se but is more in the general area of how race and
- 24 culture influence test performance more generally.

Ţ	CHAIRPERSON SEGALOFF: Okay. We'll let
2	you pick it up from there, if you'd like to just start
3	and
4	DR. HELMS: All right.
5	CHAIRPERSON SEGALOFF: respond to some
6	of the things we're interested in hearing.
7	DR. HELMS: I'm pleased to hear the
8	Commission asking questions about why there is disparate
9	impact because I think that's an issue that has not been
10	adequately addressed at all by the established testing
11	community.
12	We know for a fact that regardless of what
13	kind of written test we give in this country that we can
14	just about predict how many people will pass who are
15	members of under-represented groups. And your data are
16	not that inconsistent with what predictions would say
17	were the case.
18	But we have very little information about
19	why it is that people of color and sometimes women
20	perform more poorly on these devices than do their white
21	male counterparts.
22	What I want to do tonight is to see if we
23	can shift the discussion somewhat from the
24	characteristics of the test to the characteristics of the

test-takers and the intersection of the process of developing tests and the characteristics of the testtakers.

One of the problems we have when we talk about disparate impact is that we talk about racial group or ethnic group or gender group as though those terms have real meaning. But we know that race -- racial group, gender group, ethnic group cannot actually cause behaviors. They cannot be responsible for test scores. And so, therefore, we need to be looking at what kinds of other factors might be accounting for why it is that minorities and sometimes white women perform more poorly on these kinds of tests.

As I looked at the materials that were sent to me, I developed several ideas about what might be possible factors that are related to your testing situation.

One has to do with how the written test was developed. The procedures that were used are standard practice if one is planning to use the test with a fairly homogeneous population. That is if we had used this test only with white male firefighters, we wouldn't be here this evening because there wouldn't be any obvious problem.

1	However, in this case, because of the
2	under-representation of African-American and Hispanic men
3	and women and white women at the ranks that were used in
4	developing the test, these groups were under-represented
5	in the actual definition of the kinds of knowledge that
6	were needed to be able to perform well in this test.
7	Based on the response rates, the greatest
8	weight in defining the necessary job knowledge was
9	provided by white participants. 67 percent of the people
10	who participated in defining job knowledge were white
11	men, followed by black participants, 18 percent, and
12	Hispanics, only 15 percent. Women didn't have any
13	influence on defining job knowledge. It's less than two
14	percent of the participants were involved in this phase
15	of development.
16	The reason why these numbers are important
17	is because most of the literature on firefighters shows
18	that the different groups perform the job differently.
19	That is white men perform the job in ways that are
20	different from the ways that white women perform the job
21	and ways that are different than the ways in which
22	African-American and Hispanic men perform the job.
23	This is often because the kinds of

experiences that are open to white male firefighters are

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not open to members of these other under-represented groups. I do not know the extent to which this is true of the environments here in this location. But nationally, it's a fairly well-documented issue.

Nevertheless, the point here is that in defining the job-relevant knowledge one needs to make sure that one has sampled sufficient numbers of each of the under-represented groups to make sure that their ways of performing the job have been incorporated in the evaluation process.

One also needs to assess the extent to which their white counterparts are aware of such issues and incorporate this awareness in their job knowledge and understanding of the job.

overly pertains to the job as white men perform it, then the test is likely to be unfair to the under-represented groups because it underestimates their job knowledge and potentially overestimates the job knowledge of their white male counterparts.

There were a number of racial and gender issues that occurred to me as I looked at the data that I had available to me. In addition to the possible problems of the test specifications -- the job

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specifications of the test, there were also questions about the testing conditions. In the newspaper accounts, many of the people who seem to be dissatisfied with the test talked a lot about the fact that different kinds of experiences were available to different test-takers.

They talked particularly about the fact there were more opportunities for training and performance in the actual roles that were tested if you were a white male than if you were members of the other groups.

Because men of color and women are often excluded from informal associations with their white male co-workers, they are often excluded from the informal mentoring that happens in these groups. There is evidence to suggest that having guidance as to how to behave in interviews, as well as other kinds of coaching, may improve test performance.

It is also important to determine whether, in fact, it was the case that different kinds of preparation were available for people depending on their racial and/or gender membership groups, as the complainants in the newspaper accounts asserted.

Finally, the situation that never receives any attention and I'm told did not receive any attention

in this circumstance has to do with the test-takers

characteristics. No test can be a perfect measure for

all kinds of people. And so it is important to collect

background information so one can ascertain the extent to

which that influences test scores.

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I had no background information other than the racial and gender groups of the people who took the test. And I understand that that's the kind -- only kind of information that's collected.

But let me suggest some other kinds of information that you might want to collect post-talk or, if not post-talk, at least in the future. One has to do with language diversity. Individuals who speak a language as their first language that is not English or a dialect that is not English often perform lower on tests that are primarily English language tests. because -- a number of reasons. Sometimes they do because they language-switch during periods of stress. And so they're unable to function as efficiently during the test as their monolingual counterparts. Sometimes it occurs because they have insufficient time to complete But there are a variety of reasons why the examination. having more than one language might adversely affect one's test scores.

1 If one looks at the performance of the 2 Hispanic test-takers, for instance, on average, they 3 would have -- they would have passed the written exam. But the oral exam appears to be the place where the most 5 adverse impact occurred. And so one has to ask what 6 kinds of factors were operating that influenced their 7 test scores in that way? We also know that evaluators may react 9 more negatively to people who speak accented speech. 10 so we need to assess the extent to which that might have 11 been the case. 12 There is no information about the 13 languages, the primary languages, of the African-American 14 or, for that matter, for the white American people who 15 took the test. We need that kind of information because that should be factored in to how we interpret the test 16 17 scores. 18 Test scores may be lower if the test-19 takers are functioning under expectations that they will 20 not perform well on the test. We talk about that in 21 psychology as stereotype threat, fear that they will 22 confirm negative stereotypes about their group by not 23 performing well. This places the person under undue 24 stress and, rather than focusing on the test per se, they

expend a lot of energy in trying to do the best that they

can rather than simply answering the questions.

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Test-takers' scores might be lower if they are acculturated to a non-dominant cultural group as, for instance, African-Americans or Latinos often are, a group in which the customs and traditions differ from the larger group on which the test was developed. In that case, to the extent that the test reflects the dominant culture, then these test-takers may be placed at a disadvantage. We need to know more about the background and acculturation experiences of our test-takers.

Test-takers' scores might be lower if their socioeconomic status is lower than the socioeconomic status of the group on which the test was developed. This is because they are less likely to have the same kinds of exposure to experiences the test might cover. We need to know more about that kind of experience.

Test-takers are likely to score lower if the test focuses on traditional ways of doing the job and the test-taker, in fact, uses innovative approaches. We know that it's often the case that minorities and white women must use innovative approaches to do the job because they don't receive the kind of mentoring that

- 1 allows them to perform in the traditional kinds of ways.
- So for -- being survivors, they might, in fact, being
- 3 penalized for their skill and ingenuity.
- These are a couple of reasons or some
- 5 reasons why I think we need to begin to think about not
- 6 only the characteristics of the test but the
- 7 characteristics of the people as they interact with the
- 8 test and with the testing process.
- 9 CHAIRPERSON SEGALOFF: Thank you very
- 10 much, Dr. Helms.
- 11 Ouestions?
- 12 I'll just ask one as a starter. You
- mentioned that firefighters perform the job differently.
- I don't know if I'm stating that accurately. But maybe
- you could expand on that. It strikes me that there's
- some performance being a firefighter that it just doesn't
- 17 -- isn't affected by your -- by culture or race. I mean
- is that fair to say? That you're on that truck and
- 19 you're heading down to that fire and there's someone
- 20 screaming on the third floor and -- and maybe I'm making
- 21 it too simplistic. But culture or race doesn't strike me
- 22 that on that kind of a situation -- these guys are all
- rushing in there to save lives. We've had some testimony
- 24 about that. Is that --

1	DR. HELMS: Well
2	CHAIRPERSON SEGALOFF: fair in some
3	respects?
4	DR. HELMS: recognize that what we are
5	talking about is not the culture or race per se but how
6	people are treated because of the race or culture per se.
7	And so often what will happen is that women and men of
8	color have to earn their way into the brotherhood of
9	white firefighters. While they're earning their way into
10	that brotherhood, that often means that they're doing
11	things by themselves that their white male peers are
12	doing collaboratively.
13	So we have to begin to think about how
14	not just that you are a woman or a person of color, but
15	how people react to that influences how you perform your
16	job.
17	CHAIRPERSON SEGALOFF: Okay.
18	Mal?
19	MR. WEBBER: There was a number of efforts
20	on the during the planning and administration of this
21	test which were taken to try to eliminate racial, sex
22	discrimination problems within the test. I am just
23	questioning whether it would be possible to completely
24	eliminate them. Because the minute you move in one

- direction, according to your testimony, you might be affecting the other level.
- 3 DR. HELMS: I -- well, in a sense, you've
- 4 asked me two different questions. One of the things that
- 5 as I read the materials was done to make the testing a
- 6 fairer process was to examine the items for stereotypes.
- 7 But the fact is that stereotypes may be group-specific.
- 8 And so if you do not include a broad range of people in
- 9 that examination process, then stereotypes may still be
- 10 there that people are unaware of. So that's one aspect
- 11 of your question.
- 12 The other aspect has to do with whether
- there will always be racial and/or gender differences
- 14 regardless of what you do. I don't know the answer to
- 15 that. But my thinking is that if we were to develop ways
- 16 to measure the characteristics that result from race and
- 17 gender rather than just using racial category, then we
- 18 could, in fact, correct scores for that kind of factor.
- 19 MR. WEBBER: Thank you. I think we're
- 20 both saying the same thing; that every effort must be
- 21 made to eliminate this.
- 22 DR. HELMS: I --
- MR. WEBBER: But whether we will be 100-
- 24 percent successful none of us can ever predict.

1 I think that's entirely true. DR. HELMS: 2 MS. CAPLAN: Dr. Helms -- and I'm trying 3 to look at both sides of this whole thing that you're 4 talking about. And as you know, the test itself, there 5 were study materials supposed to be available. And let's 6 say that everybody had the same study materials and that 7 the test itself, the questions came from those books and 8 the answers were within those study materials. 9 And I know that you didn't -- you didn't want to look at the test itself. But are you saying --10 11 is that -- are you saying that no matter what test, even 12 other tests that the City gives, that within every test that is given there is an -- is there -- there is a --13 14 CHAIRPERSON SEGALOFF: Element? 15 MS. CAPLAN: Element of -- yeah. Element 16 of problems with race and culture and gender within those 17 Is that what you're saying? 18 DR. HELMS: That's what I'm saying. 1896, we've always found a disparity between blacks and 19 20 whites, Hispanics and whites on that kind of -- on that kind of written test particularly. The disparity has 21 22 been about the same. It deviates by a couple of points. 23 But we can almost tell you what your disparity will be 24 even before the test is taken.

And so the issue is -- for me at least
becomes not just describing that disparity but beginning
to think about what causes it. And if we can't figure
out what causes it, then we need to develop a new way of
assessing people.

MS. CAPLAN: Thank you.

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with us maybe some of the -- I heard you talk about it to some extent. Some of the -- if we concluded that this was -- we shouldn't certify this exam and that there's a better mousetrap, there's a better way to do it, tell us, if you could, what would be the better way to get an exam that would be likely to result in less of an adverse impact, other than -- I mean we had an approach or some comments by Mr. Lewis that talked about how they've done it in other communities in terms of selection processes from maybe -- based on race.

But if we just took this, tried to make a new exam and make it better, could be do it? And how could we do it?

DR. HELMS: I think that it is, again, not so much the characteristics of the exam because essentially even the exams that the first speaker talked about had disparate impact. I think we have to begin to

- conceptualize the process of using tests differently. So
 that right now what we do is we assume a test score means
 the same regardless of the characteristics of the people
 who would have taken it.
- What we need to begin to do, however, is
 to pay more attention to the experiences of the people
 who are taking the test and develop means of measuring
 those experiences that allow us to adjust test scores to
 take those things into account.
 - To give you a more practical example, we know, for instance, that we can reduce disparate impact by knowing something about the socioeconomic status of people and taking the socioeconomic status -- removing that from their scores, that reduces the disparate impact to some extent.
 - If we were to broaden that to include things like language, remove that from people's test scores, and other things as we discovered those to be factors that were related to that impact, then we would have a better testing process, in my opinion.
- 21 CHAIRPERSON SEGALOFF: Thank you.
- 22 MR. WEBBER: Thank you.
- 23 CHAIRPERSON SEGALOFF: I think we're all
- 24 set. Thank you very much.

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