

ACADEMIC WORKSHOP ON PUBLIC CONFIDENCE

PROCEEDINGS

Report of the
President's Commission
on Critical Infrastructure Protection
1997



PRESIDENT'S COMMISSION ON
CRITICAL INFRASTRUCTURE PROTECTION

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ACADEMIC WORKSHOP ON
PUBLIC CONFIDENCE

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Friday, May 30, 1997

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The workshop met in the Riggs Library,
Healy Hall, Georgetown University, Washington, D.C.,
at 9:30 a.m., Mary Culnan, Chair, presiding.

PRESENT:

MARY CULNAN, Chair, Commissioner

BILL GARBER, Moderator, Fleishman-Hillard

ELIZABETH BANKER, PCCIP Staff

ROBERT BIES, Georgetown University

MICHAEL DARBY, University of California, L.A.

DAVID GEDDES, Fleishman-Hillard

DORIS GRABER, University of Illinois at
Chicago

BETSY HARRISON, PCCIP Staff

RAY HIEBERT, University of Maryland

PRESENT (Continued):

BRIAN HOEY, PCCIP Staff

PAUL KLEINDORFER, University of Pennsylvania

ROD KRAMER, Stanford University

ROY LEWICKI, Ohio State University

LIZ LIPTAK, Georgetown University Staff

DAN McALLISTER, Georgetown University

STEVE MITCHELL, Commissioner

JOE MOORCONES, Commissioner

TOM TRIPP, Washington State University

TOM TYLER, University of California, Berkeley

NANCY WONG, Commissioner

LYNNE ZUCKER, University of California, L.A.

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(9:16 a.m.)

CHAIR CULNAN: Good morning. My name is Mary Culnan, and I want to welcome you on behalf of the President's Commission on Critical Infrastructure Protection, which is a real mouthful. We're the PCCIP, and we haven't quite figured out how to say that either.

But as we do say here inside of the Beltway, we are from Washington, and today we're from the government, and you're here to help us.

(Laughter.)

CHAIR CULNAN: So I want to thank you all for coming. We invited each one of you because of your particular expertise we thought could come to bear on our research, and so we're really glad you could find the time and come to join us. I know everybody is very busy.

I'm from the Business School here at Georgetown, my home when I'm not on the Commission, and Allen Andreasen, who's our Associate Dean, is going to say a couple of words of welcome on behalf of Georgetown, which is officially hosting the

1 occasion here.

2 MR. ANDREASEN: Thank you, Mary.

3 I do want to welcome you all here on
4 behalf of the Georgetown School of Business, and
5 we're pleased that we're able to host such an event.

6 This kind of activity fits, I think,
7 very well with where the Georgetown School of
8 Business is trying to carve itself a major niche in
9 the academic world, and I think in the public policy
10 world. I think there are several things that we do
11 here that impinge on the kind of work that this
12 particular group is involved in, and you have
13 several of my colleagues among you. We are very
14 interested in all sorts of issues of trust.

15 We're also interested in the broad area
16 of business and government relations. We've been
17 hiring a number of folks and growing rather rapidly
18 in all of these areas, and the chance for our
19 faculty to work with such bright and interesting
20 people as you've assembled here today is great for
21 us, and we hope that by hosting this we can make
22 your work at least pleasant, and I'm sure my
23 colleagues will help a lot to the intellectual side

1 of your enterprise.

2 So thank you again. Welcome. Have a
3 great day.

4 CHAIR CULNAN: Thanks, Al.

5 Before we get started, I'll just tell
6 you a little bit about the Commission and our work.

7 This is going to be informal. We want the workshop
8 to be informal. So there are no overheads. I'm not
9 going to stand up and turn slides, but there are
10 some overheads in your packet if you want to look at
11 that because I'm just going to go through these
12 quickly, that have some more details.

13 The first question is: what are
14 critical infrastructures, which was interesting to
15 me in reading the different papers that were
16 submitted? And this is another thing for which
17 there is no real good sound bite, but really they're
18 the nation's life support systems, the kind of
19 things we take for granted.

20 And probably the best example of the
21 fact that people really do take these things for
22 granted was illustrated by President Clinton at the
23 beginning of the month when he was asked how he felt

1 about his daughter going away to college 3,000 from
2 Washington at Stanford, and he said, "Well, the
3 planes run out there and the phones work and the E-
4 mail works out there, so we'll be all right," and
5 that pretty much sums up, I think, how the public
6 feels about infrastructure.

7 So why have a commission to study this?

8 President Clinton signed the executive order that
9 established the Commission last July, motivated in
10 large part because of some recent terrorism events,
11 such as Oklahoma City, the World Trade Center, and
12 some things that had taken place in some other
13 countries as well.

14 And so our mission during the year and a
15 half that we are in business is to develop policy
16 recommendations for the President that will assure
17 that the nation's critical infrastructures will be
18 safe from both physical and cyber threats.

19 We have 20 Commissioners under the
20 executive order, and ten of these are from the
21 federal government, and then there are supposed to
22 be ten from the private sector, which is broadly
23 defined. I think business people wouldn't consider

1 me to be a private sector person, but I'm not from
2 the government. So we have five private sector
3 people on the Commission now, including our
4 Chairman, who is a retired general and then served
5 in the private sector after he left the Air Force,
6 and we have some more private sector Commissioners
7 to come, which we hope will help us as we finish up.

8 Our work is organized around five
9 different sectors which represent the critical
10 infrastructures from the executive order, which
11 named eight. There's banking and finance. We have
12 an information and communications sector. We used
13 to call this electronic distribution, but decided it
14 was broader. Physical distribution, energy, and
15 vital human services, and the slide on the sector
16 teams shows what kinds of specific activities are
17 included in each one of these teams.

18 One of the things that makes our work
19 particularly interesting is that the private sector
20 owns the infrastructures, not the federal
21 government, and so one of the major challenges in
22 our work is to build a partnership with the private
23 sector or, in fact, to get the message out so that

1 the private sector on its own will take steps that
2 may turn out to be necessary to plug any holes that
3 currently exist.

4 We're also looking at a number of
5 crosscutting issues, and I'll talk about them at the
6 end. These are really the research questions for
7 our Commission.

8 Terrorism was the driver for
9 establishing the Commission, but one of the things
10 we've found as we proceeded in our research is that
11 the real issues that are perhaps threatening the
12 infrastructures are what we call the new risk
13 environment, and people in business schools know
14 this already because the business environment has
15 changed so much, and this drives a lot of the things
16 that we're teaching our students.

17 Deregulation has meant there are more
18 players, and there's more complexity. It's now a
19 global environment. We have the merger between MCI
20 and British Telecom. So now you have foreign
21 companies operating part of what used to be a
22 formerly American infrastructure.

23 Greater dependence on information

1 technology, in general, and specifically on
2 telecommunications, and that this goes across
3 infrastructures. So you have a lot more
4 interdependencies across these different
5 infrastructures. Internet is one big example, but
6 there are others.

7 Also there's really a new paradigm for
8 national security that's emerging. Where it used to
9 be if you wanted to attack the U.S. you took out a
10 missile silo, now you will take out a financial
11 institution, and so this, again, creates some new
12 realities that the private sector and the government
13 have to address and how to do this.

14 So the research questions that we're
15 addressing in our work, we're looking at what is the
16 national risk. Are there new threats that represent
17 problems or potential problems for the
18 infrastructures, and are the infrastructures
19 vulnerable to these threats or, in fact, are we
20 protecting against them already? What is the
21 business case for why the Commission is in
22 existence?

23 National structures issue. How should

1 the government be organized to address these issues,
2 and is it currently organized in that way or not?

3 Public confidence, which is what we're
4 here to talk about today.

5 Economic issues. Who pays for any
6 changes that may be necessary?

7 Research and development. What kinds of
8 new tools or new technologies may be needed? And,
9 again, who should pay for these?

10 Legal and regulatory landscape. What is
11 it with regard to infrastructure, and are there
12 holes that need to be plugged or are there laws that
13 serve as impediments to assuring infrastructures?

14 And finally education, training, and
15 awareness both for the business community today and
16 the future business leaders of tomorrow, which are
17 our clients or whatever we'd like to call them, our
18 students.

19 And so these are the kind of issues that
20 we're addressing. The last slide in the handout has
21 our address. We'd be happy to hear from you or if
22 you'd like to follow our work, we have a Web site,
23 and we put up transcripts of public meetings. We

1 will put up a transcript of this meeting eventually
2 when it's done so people can see what we hear, have
3 said about this today, and so, again, you can see
4 the executive order or anything else you'd like.

5 Before we start and I turn this over to
6 Bill Garber, I know I'm going to trip up and call
7 you "Graber" because Doris Graber is here, and I've
8 already made this mistake once, but I'll start out
9 the day right.

10 I want to thank my colleague on the
11 Commission, Steve Mitchell, who before I came to the
12 Commission had the idea that we should focus on
13 public confidence, and he started Team Confidence,
14 as I understand it, and really serves as a champion
15 for this idea. I think I heard some of the other
16 people that were skeptical that maybe this wasn't
17 such an issue, and now any time we have a meeting
18 and discuss an issue, public confidence inevitably
19 rises to the surface.

20 And on a personal note, because I've
21 started looking at trust and justice in my own
22 research, when he called up and said, "Well, you
23 know, you're going to be on the Commission, and

1 we've started this project on public trust. Maybe
2 you'd be interested in being involved in that," I
3 thought, "Boy, would I ever."

4 One final thing. In the paper this
5 morning, if you get a chance to look at the Post on
6 the Federal Pages, which is on the back of the
7 editorial page, there's an article that some of the
8 top appointees in the Clinton administration are
9 having a retreat this weekend, and they're talking
10 about public trust also, not in infrastructures, but
11 in government, which was a topic that some of you
12 addressed in the papers you sent in. So we're
13 timely without even realizing it.

14 So, again, thank you all for coming.
15 We're going to have an interesting day, and I'll
16 turn this over to Bill, who's going to co-moderate
17 this with me.

18 MR. GARBER: I'm the guy that's supposed
19 to keep us on scheduled, and obviously I have
20 miserably failed at this point because we are
21 probably about 30 minutes into our allotted time.

22 A couple of ground rules of no
23 particular order. First of all, for those of you

1 that haven't found the restrooms in this facility,
2 they're very, very close. They are out the door to
3 your right, and then an immediate left, and then
4 just beyond the elevator, which is on your left just
5 as you go in that next little ante room there, there
6 is a little hallway back to your left, and both the
7 men's and ladies' rooms are there.

8 And as Mary said, this is informal
9 despite the lovely setting and everything else and
10 some kind of sense of formality, and so we have
11 scheduled breaks, and we'll go over the agenda in
12 just a moment, but don't feel as though you have to
13 wait for those either to get something from the
14 table, some fruit or juice or coffee, whatever the
15 case may be. I mean do as you please in terms of
16 coming and going as you need to.

17 In your folder there are some discussion
18 questions, which perhaps you've had a chance to look
19 at previously. Most of them were part of the
20 correspondence that was initially sent to you when
21 we started forming this workshop, and they'll be the
22 basis for which we will go through the day.

23 It's sort of my task to keep us on

1 subject, on task, and to get through these
2 particular points.

3 Along the administrative lines, I'd like
4 to say that Kristin Cuscella is a member --

5 CHAIR CULNAN: Who just left.

6 MR. GARBER: -- who just walked out the
7 door, but the woman by the door there. She and I
8 both work for an international communications firm
9 called Fleishman-Hillard. We are working with the
10 Commission on a variety of fronts. My colleague,
11 David Geddes, is a senior member of our research
12 staff from our corporate headquarters in St. Louis,
13 and he is specifically working with Mary and the
14 Commission on the survey research that we're going
15 to do on this particular subject, and of course, of
16 which this is a part.

17 If there's anything that Kristin or I
18 can do regarding arrangements, flights, whatever the
19 case may be, anything at all, please just ask and
20 we'd be delighted to help you out.

21 As we go around, as we start these
22 things, I'll essentially just sort of read the
23 questions and whatnot or a question, and then what

1 I'd like to do is if the area that's being talked
2 about here is in your particular field of expertise
3 or you have done research or whatnot in that, signal
4 some way.

5 CHAIR CULNAN: Turn your card up.

6 MR. GARBER: Well, initially kind of let
7 me know in some fashion that you're willing to take
8 the lead on the discussion because what we want to
9 do is, I mean, this is not one person carrying the
10 ball and one person speaks on a question and then we
11 go on to the next one. I mean we're in the
12 discussion mode here, and Mary told me I didn't have
13 to tell academicians that they had to talk, but for
14 subsequent things, if not for the first one, rather
15 than raising your hand or something like that, just
16 put your name tag up on the corner, and that will
17 signal me that you have some additional comments,
18 challenges, debate, or whatever the case may be
19 regarding the topic that we're talking on.

20 And if we go on a little bit long, I'll
21 sort of, you know, say it's -- I'll look at Mary and
22 I'll say, "Mary, have we gotten what we need?" and
23 then we'll move on.

1 The other thing I would like to tell
2 you, each of you, is that we have a court reporter
3 here with us in the corner, who is making a verbatim
4 transcript of these proceedings, and if we follow
5 suit the way the Commission has worked previously,
6 in a couple of weeks that probably will be posted on
7 their Internet site and, of course, is accessible by
8 any of you who might like to download part or all of
9 that transcript, but I certainly want you to be
10 aware of that.

11 Are there any questions at all or
12 whatever before we start? Anything I've forgotten
13 to tell everyone?

14 The agenda is also in your packet, and I
15 might just mention that we have a break scheduled at
16 10:30. We have lunch scheduled here at 12:30. We
17 don't intend to -- I mean, while we want to have
18 some time for social talk and whatnot during lunch,
19 we don't have a long time scheduled for that.
20 Obviously, you know, this is the lunch table where
21 we sit, and so we'll intend to resume, you know,
22 when it's comfortable for everyone after lunch.

23 The 3:00 p.m. adjournment time is pretty

1 firm because I think there's another function in
2 this room at four. So we will end at three o'clock
3 today for those of you that may have other plans or
4 reservations and whatnot to leave.

5 Before we get started with the
6 questions, I would like to kind of -- I would
7 appreciate it if we could kind of go around the
8 room. In your folders, for those of you who stayed
9 in the hotel, there were some bios of the Commission
10 members, but, of course, the Commission members do
11 not have bios of you. So I'd just like each person
12 to go around the table, starting with you, Joe, and
13 introduce yourself and not just names and where
14 you're from, but maybe a little bit about your
15 interest in this particular subject, whatever
16 research you may have done, and whatnot. I mean
17 this won't last too long, but nonetheless, we'd just
18 like to get everybody to know each other and know
19 who we've got around the table here so that we can
20 then continue.

21 So, Joe.

22 MR. MOORCONES: I'm Joe Moorcones. I'm
23 a Commissioner. I come from the National Security

1 Agency out of Fort Meade. I've spent 25 years in
2 information systems security, worked on everything
3 from nuclear command and control codes to make sure
4 they can't launch our missiles, where we have a big
5 deal of trust and confidence, and it goes to
6 everything from personal security all the way
7 through physical security, all the way down today to
8 trying to figure out how we're going to get better
9 security enabled features in commercial products
10 because that's what everybody in government is
11 using, including the military.

12 So that's sort of my background. I've
13 been involved in this area for a long period of
14 time, but never looked at trust as just a pure
15 academic kind of a view, but I would say mistrust
16 was probably the way we designed our systems,
17 assuming we could trust no one.

18 MR. BIES: Yeah, my name is Bob Bies.
19 I'm in the School of Business here at Georgetown
20 University. My area of research has longstanding
21 been in issues of justice, perceptions of justice or
22 injustice more accurately in the workplace, but more
23 recently gotten more involved in looking at how

1 people act out the dynamics of distrust,
2 particularly in the form of revenge and paranoia and
3 things like that. So I'm really interested in the
4 distrust piece, much more so than trust. So that's
5 it.

6 MR. HIEBERT: My name is Ray Hiebert.
7 I'm a professor at the University of Maryland,
8 former Dean of the College of Journalism there.
9 I've written a few books on journalism and public
10 relations and the mass media, and for the last 23
11 years I've been the editor of the Public Relations
12 Review, which is a quarterly journal of critical
13 commentary on public relations.

14 And I'm interested in the public
15 relations aspect of this question of public trust.

16 MS. ZUCKER: I'm Lynne Zucker. I'm a
17 professor of sociology at UCLA, and I guess my
18 interest is focused most on the social construction
19 of trust, and I've looked at it in a number of
20 different contexts, and that's my major approach.
21 So it's kind of a blending of sociology and
22 economics.

23 MR. DARBY: I'm Michael Darby, Lynn's

1 husband. I'm a professor at the Business School,
2 the Anderson School of Management, and the Economics
3 Department at UCLA.

4 I guess I come at trust from two ways:
5 one, from sort of an industrial organization
6 orientation towards, with Eddie Carney, I introduced
7 the idea of credence goods, when you buy something
8 like an operation and you really don't know if you
9 need it or new transmission, and how do market
10 structures enable those kinds of transactions to be
11 made?

12 And the other is from the financial
13 markets, safety and soundness questions, and
14 questions of what we call systemic risk. What can
15 set off a run on the system?

16 MR. GARBER: Gee, I wish you'd publish.
17 I really want to know about that. It sounds like
18 we small investors that that might be some good
19 knowledge to have.

20 MR. MITCHELL: I'm Steven Mitchell. I'm
21 the Department of Justice representative to the
22 Commission, and I come at this question from a
23 criminal law perspective, having formerly been with

1 the department's Computer Crime and Intellectual
2 Property Section, and in the course of the last nine
3 months with the Commission, I can say that one of my
4 proudest achievements is successfully recruiting
5 Mary Culnan to be a part of our Commission as well.

6 So I look forward to discussing this.

7 MS. GRABER: I'm Doris Graber. I teach
8 political science at the University of Illinois. My
9 main area of research has been the mass media,
10 particularly television news, and of course, there
11 the issue of what it does in terms of people's trust
12 is a very important issue.

13 I've also done work in information
14 management in the public sector, and part of that
15 involves public communication campaigns, and there
16 again, the issue of trust comes in, and I've done a
17 good bit of work in what people call political
18 psychology, which again deals with perceptions and
19 people's attitude towards information and such.

20 MR. TYLER: I'm Tom Tyler. I'm from the
21 Department of Psychology at the University of
22 California at Berkeley. I have been concerned with
23 public confidence in government and government

1 institutions.

2 I think there are really two aspects of
3 that problem that I've particularly explored. One
4 is the consequences of trust. That is, I've been
5 concerned with why people comply with legal rules,
6 why they obey the law, and how trust in government
7 shapes whether or not people, in fact, will obey
8 laws, will accept decisions by political and legal
9 authorities.

10 The second issue is the mechanisms that
11 government can use to create and maintain trust, and
12 in particular, I've been concerned with procedures
13 through which government functions and how those
14 affect trust in government and trust in government
15 authorities.

16 MS. WONG: Thank you.

17 My name is Nancy Wong, and I'm a
18 Commissioner on this Commission from the private
19 sector. I'm serving as a private citizen. So I
20 don't represent the company I came from, but before
21 I came on this Commission, I worked for Pacific Gas
22 and Electric Company. I've been in the information
23 technology field, serving that company for the last

1 25 years.

2 My particular interest in this is I've
3 taken on the assignment of putting together a
4 profile of the national risk as we move forward into
5 the Information Age and how that has changed, and
6 risk is an area which I am responsible for in my
7 company, particularly related to information assets
8 and how risk has changed in my company as a result
9 of our dependence on information technology and the
10 use of information in our business processes.

11 For national risk, risk is very much
12 related to perception and expectations of the
13 public, and it plays a very important component in
14 determining risk as it is perceived and as it is in
15 reality, and so I really look forward to today's
16 discussion.

17 Thank you.

18 MS. BANKER: I'm Elizabeth Banker. I'm
19 an attorney at the Commission, and I work with
20 Steven Mitchell on the legal issues that the
21 Commission is facing.

22 MR. HOEY: My name is Brian Hoey. I'm
23 the first public affairs officer detailed to the

1 Commission as a Special Assistant to the Chairman.
2 My most recent experience in building trust was in
3 Sarejevo-Bosnia with warring factions.

4 (Laughter.)

5 MR. GARBER: Did you succeed?

6 (Laughter.)

7 MR. HOEY: Not entirely successful.

8 MR. GARBER: Not yet anyway, right?

9 MR. HOEY: Correct.

10 MS. HARRISON: My name is Betsy
11 Harrison, and I handle legislative affairs at the
12 Commission, our outreach to members of Congress and
13 the committees on the Hill, many of which have
14 jurisdiction over the areas that we're studying.

15 And I wanted to join Team Confidence
16 because I think that public confidence and trust
17 will be of major interest to Congress when the
18 Commission finally sends its report to the President
19 and eventually it becomes public.

20 MR. TRIPP: Hi. I'm Tom Tripp. I'm
21 with Washington State University. I've always been
22 interested in issues of transactions at work between
23 workers and subordinates and bosses and how power

1 differences affect that and how perceptions of
2 justice come into that.

3 More recently I'm interested in when
4 trust fails, how it affects those relationships, and
5 in particular, revenge in the workplace and how
6 workers tend to get even with each other when trust
7 fails.

8 MR. LEWICKI: I'm Roy Lewicki. I am
9 professor of management and human resources at Ohio
10 State University. Most of my career has been in
11 areas of negotiation and conflict management,
12 justice work, and in the last few years on questions
13 of trust and trust development.

14 I've been most interested in
15 interpersonal trust, how trust develops, how people
16 view different kinds of trust and the way it
17 develops, how to repair trust, how you fix broken
18 trust, and how to measure trust and trust dynamics,
19 how to understand sort of what trust level people
20 are and how that process grows or changes over time.

21 MR. KRAMER: I'm Rod Kramer. I guess I
22 would describe myself as a trans-social. I'm a
23 social psychologist trapped inside a business school

1 professor's body.

2 (Laughter.)

3 MR. KRAMER: I was trained as an
4 experimental social psychologist, but I've been at
5 the Stanford Business School since 1985, and I study
6 sort of the social psychology of collective action
7 and inaction, and in particular, I've been
8 interested in why people cooperate with other people
9 when they're sharing scarce or critical resources.
10 So I'm very interested in many of the themes that
11 this Commission is studying.

12 I'm also interested in why cooperation
13 fails or unravels, and recently have been working a
14 lot on the relationship between trust and people's
15 willingness to cooperate, and Tom Tyler and actually
16 quite a few people who participate in this
17 conference or in this Commission also got together a
18 few years ago and thought about some of these issues
19 in the context of organizational areas, and we
20 published a book, Tom and I and a number of the
21 people, reflecting our views.

22 And one of the things that came out of
23 that for me has been an interest in paranoia, why

1 people don't trust other people, and the antecedents
2 of collective suspicion. So I think probably
3 national security issues and other issues are
4 involved with that, but it's been a fascinating
5 topic. It's made me a little paranoid myself.

6 (Laughter.)

7 MR. KRAMER: But I'm happy to be here.

8 MR. GARBBER: And they are recording
9 this.

10 (Laughter.)

11 MR. McALLISTER: Dan McAllister, and I'm
12 from here at Georgetown University. It's a pleasure
13 just to be able to walk down the hall from your
14 office and step into such a wonderful intellectual
15 environment.

16 My work is in organizational behavior,
17 trusted personal relationships within an
18 organization or work setting. If there's something
19 that's distinctive about my thinking, it's getting
20 beyond the reasonable useful information towards the
21 affect and emotion that's in the personal baggage
22 that can build and can influence the sort of
23 confidence that people have in their relationships

1 with one another. Call it the affective component,
2 as well as the cognitive.

3 I'm very much concerned with not only
4 the function, the positive side of the question, but
5 also the dysfunctions of trust. The bottom line is
6 in order to pull off the scam, you've got to be
7 trusted, and the larger the scam, teams of trust are
8 needed.

9 (Laughter.)

10 MR. McALLISTER: And so within this
11 context, I'm very much interested in a balanced
12 perspective on trust and understanding and exploring
13 not only the reasons why we should be pursuing it,
14 but also the controls that we need to have in place.

15 MR. GEDDES: I'm David Geddes. I'm from
16 Fleishman-Hillard. I'm Vice President of Research.
17 My direct involvement has been through Bill Garber
18 and Mary Culnan in designing and soon to implement
19 some research, a public opinion survey and then
20 surveys of both owners of infrastructures. As Mary
21 pointed out, most of these infrastructures are
22 privately owned, yet the public has near complete
23 dependence upon them, and the users of critical

1 infrastructures, which can include virtually any
2 business in this country, but we will focus on those
3 that are tremendously dependent.

4 Outside here, my primary work over the
5 past ten years has been for telecommunications
6 companies. I previously worked for one of the major
7 long distance companies, and now most of my time is
8 spent with working for at least what is today the
9 largest local phone company in the country, although
10 that may change in the next few days, and also
11 working on, I guess, strategic marketing and brand
12 image development for both telephone company,
13 telecommunications companies, and technology
14 companies.

15 As I reflected on a few things, it
16 became clear that we actually spend a lot of time on
17 a day-to-day basis on the issue of what is
18 essentially a commodity business, trying to get
19 people to develop trust in our company.

20 CHAIR CULNAN: Before we get started, I
21 wanted to bring this to people's attention because a
22 number of you here may be interested in this, and
23 you can get a copy free, and if you call before you

1 leave town, it's a local phone call, but the Pew
2 Center, which used to be the people in the press
3 that was part of the L.A. Times, just released in I
4 think it was this past month a survey they did
5 called "Trust and Citizen Engagement in Metropolitan
6 Philadelphia, a Case Study," which touches on a lot
7 of the issues that many of you are interested in,
8 and so this will be here if you want to look at it
9 during lunch, and inside the front cover is their
10 phone number. If you call them up, they'll send you
11 a copy for free.

12 There's also an executive summary on the
13 Internet, but this has all of the items and all of
14 the statistics, and they do actually some analysis
15 at the end that they report.

16 MR. GARBER: Okay. It's perhaps unique
17 that two days ago the Washington Post had an article
18 in it that talked about the confidence index, and of
19 course, this is consumer confidence here, but the
20 confidence index hitting a 28-year high, and that
21 the country is basically feeling pretty good, which
22 is one of the challenges, of course, that the
23 Commission has in terms of looking at the other side

1 of things and planning for the potential eventuality
2 that some failure, intentional or otherwise, might
3 cause some major and abrupt change to feeling good
4 about some particular infrastructure.

5 But in any event, as I mentioned,
6 looking at the first question, what is trust? And
7 how does trust in individuals differ from trust in
8 institutions, such as infrastructures?

9 Who's going to be the first? Lynne, do
10 you want to give us a shot at this?

11 CHAIR CULNAN: We pick on you because
12 you're sort of our institutional person here.

13 MS. ZUCKER: Okay. I have to admit I
14 didn't really prepare a speech based on what I
15 wrote.

16 MR. GARBER: No, no.

17 MS. ZUCKER: So I hope you can take a
18 look at what Michael and I put together because I'm
19 not going to cover all the points.

20 But I guess the major thing I'd like to
21 start out with is just, you know, there are kind of
22 two ways of looking at trust, and I really look at
23 trust as not generally a manipulative strategy by

1 people to try to get people to, you know -- a
2 confidence game kind of thing -- or to try to get
3 people to do something against their own self-
4 interest, and I think, in fact, that if trust is
5 extensively used that way, you finally don't have
6 any, and that's when systems collapse and you don't
7 have any of this critical infrastructure you're
8 talking about.

9 And so I think that just as we talk
10 about signals in many areas, especially in the labor
11 market with Spence's ideas on using signals that
12 contain information about the underlying
13 characteristics of the worker, and for us it's
14 signals of trust that tell us something about the
15 underlying characteristics that we can expect in
16 ongoing transactions.

17 And if there's much divergence between
18 the signals and the underlying real "this really is
19 really there and is really supporting the
20 transaction," then eventually, and not very long,
21 the transaction really breaks down.

22 So, you know, kind of if we went around
23 the table and asked how many of us have been taken

1 in by these scams we read about, we probably find
2 that not many of us actually have been because we
3 understand signaling and we understand reputation
4 pretty well, and so because we know about these
5 things, we're much less likely to get taken in by a
6 confidence game. We ask the right questions and,
7 you know, we don't proceed. We don't act
8 immediately. We reflect on it and we think. You
9 know, we may collect other information certainly
10 before we make a big investment, even of time and
11 energy, let alone money, right, which people often
12 talk about as one of the kind of classic confidence
13 areas.

14 So building confidence, building public
15 confidence and public trust I see as really
16 something that requires real investment and a lot of
17 underlying structure that actually supports the
18 transactions that are going on rather than something
19 that can be done superficially on the surface and
20 then radically change public confidence.

21 Michael, we going to probably get ahead,
22 and I don't know if I'll be actually able to use
23 this, but one of the really good surveys that's been

1 done -- I promised to bring survey items -- one of
2 the long-term surveys that has asked questions over
3 a number of years is the general social survey, and
4 if you look at the questions on the banking
5 institutions, which is what we focused on in our
6 statement, what you see is that, in fact, public
7 confidence really responds to what happens.

8 There was a lot higher public confidence
9 in banking when you didn't have the savings and
10 loans' failures, and you know, again, there's a nice
11 distinction between banks and savings and loans, but
12 a lot of the public mix those up, and as Michael
13 pointed out, actually after we put together the
14 statement, he pointed out that, in fact, there was
15 actually a depreciation of kind of the bank's
16 reputation capital by allowing --

17 MR. DARBY: The use of the word "bank"
18 by federal savings banks, the former thrift
19 institutions.

20 MS. ZUCKER: You know, so there are real
21 effects. So if you, you know, assume someone else's
22 losses or you take on the responsibility of another
23 institution that hasn't done well and which makes

1 people nervous and, you know, doesn't really support
2 their trust, then you lose some of the trust in your
3 institution. That is, there is real depreciation of
4 the reputation, and it can occur very quickly.

5 You know, you can think about the actual
6 runs on banks, and there are actually very few, and
7 they were mostly limited to state banks where the
8 state --

9 MR. DARBY: Savings and loans.

10 MS. ZUCKER: Yeah, the state savings and
11 loans. Sorry. The state savings and loans where
12 there could actually be insufficient support for the
13 insurance fund, so that the states might default on
14 promises to insure some of the accounts.

15 And that's kind of one of the most
16 extreme examples of what happens with lack of trust,
17 that you really do get these runs on institutions
18 that basically make the situation much more serious
19 than it was before the run started. It causes a
20 further collapse of the system.

21 So trust is something that's built up,
22 and the question is: can you understand well enough
23 the mechanisms of supporting trust to be able to

1 actually develop a strategy of increasing trust in
2 the institution? And the answer is, of course, yes.

3 And we can see that because practically,
4 that's what you do. You advertise, and you point
5 out the characteristics of your product or service
6 that really is competitively better, and you try to
7 emphasize your strengths, right? That's what
8 advertising really does.

9 But, again, there has to be something
10 under there. It's not just putting out a nice ad
11 and saying this is the way we are. If there's not
12 something underneath that, eventually the system
13 collapses, and again, I think the gap between the
14 time the signal is sent and it's really false, a
15 false signal, and the time the system collapses is
16 not very long. You know, it's time you start to
17 decrease the amount of reputation or trust in the
18 organization.

19 I've talked a lot in my previous work
20 about the replacement of trust between people,
21 between individuals, with trust that's based on
22 institutions, and I do think that is a general
23 process. That is, as we know less about individuals

1 and we don't know whether or not -- you know, we
2 haven't had a lot of repeat interactions with them
3 and the investment of time and energy in these
4 repeat interactions may be more than would be offset
5 by the gains in the relationship, we tend to rely on
6 other kinds of institutions to replace that kind of
7 trust.

8 And it's partially because of the
9 complexity of our exchanges. So if you think of
10 exchanges you do, if you just think of your average
11 day and you think of the kinds of exchanges you
12 engage in and think of the situation if you had to
13 build enough personal trust with each person you
14 interact with during the day, what that would mean
15 in terms of your time. You know, as the kinds of
16 exchanges you're involved in and the number of
17 exchanges really increases a lot, which is part of
18 what's happened in modern society, you can't
19 possibly develop those relationships quickly enough
20 and extensively enough to support the kinds of
21 exchanges you're involved in.

22 So that's led to the development of
23 institutional based trust or at least growth of that

1 component of trust, I think, a lot in modern
2 societies.

3 You know, will this be reversed? I
4 mean, one question you could ask is one consequence
5 of the Information Age could be that we really gain
6 so much more information, are able to gain so much
7 more information about individuals that actually we
8 could engage in more direct transactions and bypass
9 the institutional structures more.

10 I don't know if that will happen, and I
11 don't know which sectors it would be most likely to
12 happen in either. We tend still to rely on a lot of
13 intermediaries, like escrow accounts. We don't try
14 to qualify the person who's trying to buy our house
15 ourselves to determine whether or not they actually
16 can pay the money. We don't generally extend loans
17 to them, although this is actually becoming more
18 frequent because when the housing market gets very
19 bad, people will loan on their own.

20 You know, we tend to rely on these third
21 parties to guarantee transactions, but there is a
22 cost to that, and there's kind of two costs. One is
23 the direct cost, that is, someone's time and energy

1 is going into actually certifying all of these
2 people that engage in transactions or at least kind
3 of limiting your risk or limiting various people's
4 risk in the situation.

5 This is expensive. So it increases the
6 transaction's costs. So we're paying a lot for
7 these structures that then protect us. So it's not
8 as though, well, gee, we don't need interpersonal
9 trust anymore. Look at all of these substitutes we
10 have, but rather it's kind of a tradeoff in terms of
11 different kinds of costs.

12 There are certain kinds of costs in
13 terms of time and focus, I guess, to actually engage
14 in interpersonal trust and sort things out, and
15 there are typically financial costs to kind of
16 laying off this trust relationship onto an
17 institutional structure.

18 And then you get into questions of,
19 well, now that you've moved all these trust building
20 relationships into an institutional setting, then
21 what about trusting the institution and how do you
22 build that?

23 And, I guess, again there are a number

1 of different ways of looking at this. One way we've
2 looked at it on scientific teams is that on your --
3 on the team itself -- so if you're a principle
4 investigator and you have your group of students and
5 all of us are familiar with this, so I think it's a
6 good concrete example -- if you're actually a member
7 of a working team in the university, typically it's
8 all interpersonal because, you know, you're talking
9 almost everyday or, you know, very, very frequently,
10 and you are working back and forth and you are
11 working out the dimensions of the trust
12 relationship.

13 But in the very large scientific
14 collaborations which typically happen more in high
15 energy physics or in space science or some
16 geophysics collaborations or like that, where these
17 individual teams that are built up at universities
18 end up becoming interdependent in a very large
19 collaboration, then the question of how you actually
20 construct trusts becomes extremely critical.

21 Why? Because each group has kind of its
22 own mechanisms, but when they get together, they
23 don't whether to trust the other teams. And here

1 they are putting their cutting edge research ideas
2 on the table to try to really move this project
3 forward because they'll get the maximum out of it,
4 you know, if they put their best ideas in.

5 But there's a real risk. The risk is
6 that someone will try to publish from this
7 collaboration before they're able to publish really
8 their own ideas and their own work, their own data.

9 This especially becomes critical when the data is
10 all shared. So there is no way to really protect
11 your property rights by saying, "Well I'm going to
12 publish first and then I'll release the data to the
13 rest of the collaboration."

14 I mean, high energy physics is a pure
15 example of that, since all the data basically is
16 released at the same time to all the teams on the
17 project.

18 In geophysics sometimes you're able,
19 especially oceanography, you're able to kind of
20 segment. You have your instruments down there off
21 the ship, and you're are able to kind of segment
22 your own data a bit better, although because the
23 multi-disciplinary an area is, the more conflict you

1 tend to get into.

2 So oceanography actually is fairly high
3 in conflict over both allocation of time on the --
4 how much time can you have putting your instruments
5 over the side? Not all of the instruments can be
6 down at the same time. So, therefore, there is a
7 lot conflicts over who gets to collect the most
8 data.

9 In high energy physics that's typically
10 not a real constraint. So you get into different
11 kind of disputes in different projects.

12 So the question of how much you have
13 initially, socially constructive, that is the same.
14 That is the idea of, you know, the cross-discipline
15 versus within discipline. If you're inside the same
16 discipline, you tend to share a lot of the same
17 rules and ideas about how you share data and what is
18 appropriate and what our property rights really are.

19 And as you move across disciplines you
20 lose those rules. They don't apply. You're not
21 sure what the other, you know, the other team from
22 the different discipline really will think. So as
23 you move across these boundaries, you tend to be

1 more uncertain and you tend need to construct trust.

2

3 Now, if trust construction were free,
4 that is, if it didn't really cost anything, well,
5 you know, so what? So you just construct some rules
6 or you construct some way of working together.

7 But the argument really is that you
8 actually have to construct trust, and that it takes
9 time. Instead of collecting data or analyzing data
10 or writing your paper, you're busy trying to create
11 rules that will protect your property rights, and so
12 it takes time away from things that you value and,
13 you know, your real, you know, your real task.

14 So trust is seldom -- you know,
15 occasionally it can be the main thing you are trying
16 to do, but very seldom is it really your main job.
17 I mean, banks' main job is not constructing trust.
18 It's, you know, engaging in these financial
19 transactions.

20 So it's only -- you know, it's very
21 important to what they do, but it's not kind of --
22 their only job is kind of a side part of there work,
23 and the more they have to work on it -- and of

1 course, that's what exactly what they think you
2 confronted with is they've had to work on it more --
3 takes time away from their normal kind of business
4 activities.

5 MR. GARBER: Thanks.

6 Doris.

7 MS. GRABER: I'm going to look at this
8 more generically and probably much more briefly. I
9 defined a trust as confidence that expected
10 performance will take place, and that's really two
11 elements that I find very important in the creation
12 of trust.

13 The first thing is that one has
14 confidence in their several level schemata. One
15 would be individual confidence where, based on own
16 experiences that expected behavior has taken place,
17 we decide that some institution or individual is
18 trustworthy.

19 I think there is a collective aspect of
20 this where the question of confidence becomes an
21 issue of group confidence. There's also a what I
22 like to call a historical aspect to it, where one
23 has certain notions that certain -- which has more

1 or less historically reinforced that certain groups
2 are trustworthy or not trustworthy.

3 For instance, in this country,
4 unfortunately there's sort of a general belief that
5 politicians cannot be trusted as a group, and you
6 have to work against this sort of political myth.

7 And there are consequences which I won't
8 spell out in terms of the initial, you know, how you
9 create confidence on their personal level,
10 collective level, and on the collective myth level,
11 and how do you dispel distrust. Those variations
12 are very important, I think, in the practical sense.

13

14 The other thing, and I think that was
15 alluded to here, is the question of what is expected
16 behavior. And I think that's a very important
17 aspect, on one hand, in building trust when people
18 are not familiar with a certain situation. You do
19 have to lay down rules so that people will know what
20 to expect.

21 I think under many circumstances when it
22 comes to major institutions, and that includes
23 government as well as many major projects at the

1 institutions, the individual really does not know
2 what trust ought to be based on and has
3 misconceptions. So, for instance, you know,
4 in my particular field being government, there are a
5 lot of expectations about what a political candidate
6 can do or what a Congressman can do that are really
7 quite false, and people don't understand it, and
8 then they become disappointed with the performance.

9

10 And so I think in any investigation of
11 the level of trust, one needs to ascertain what
12 people really expect, and if those perceptions are
13 false, do something about these perceptions.
14 Advertisement was mentioned as one thing. The media
15 very often are involved in this, and there I think
16 we talk about a chain of trust in the sense that
17 those institutions are fine to pass on the word, but
18 they have to be trusted as well, and if they're not
19 trusted, if you don't trust the advertisement, it's
20 not going to do any good.

21 If you don't trust journalism, the
22 media, et cetera, and they publicize something, it's
23 no good. So one needs to look at the chain of trust

1 and who the agents are that are likely to be
2 believed by the particular community that one tries
3 to address.

4 I think there's also such a thing as the
5 overall climate of trust. There are so many
6 different institutions and there's sort of a spill
7 over from one institution to another. If you have a
8 number of experiences that indicate distrust, you
9 started out with the notion of distrust because in
10 terms of many international aspects, I think,
11 there's very good reason for distrust, and then you
12 distrust everything. The basic principle becomes
13 distrust.

14 On the other hand, that's, I think, the
15 one thing that's really favorable. People like to
16 trust because trusting is very reassuring and
17 confidence building. So once you can create a
18 climate of trust, you can ride on that a good ways.

19 So I think that's a generic approach
20 that might be useful across many different types of
21 infrastructures.

22 MR. GARBER: Rod?

23 MR. KRAMER: Thanks.

1 I actually I appreciated your comment
2 about the fact that people seem to like to trust
3 because I think there's some good social
4 psychological evidence of that, but I'm also
5 reminded of an essay that David Kipnes recently
6 wrote where he talks about the antipathy towards
7 trust. People have also kind of an aversive
8 reaction, having the trust or rely on institutions
9 and stuff, and I like his notion, especially, I
10 think, in terms of this Commission, because he draws
11 it out in the context of people's reluctance to
12 trust technological systems and social technical
13 systems; that there's an ambivalence towards trust,
14 which is just a side comment.

15 In terms of what is trust with respect
16 to critical infrastructures, one of the notions I
17 thought was interesting was sort of the sense of
18 fiduciary trust, the trust we have in institutions
19 to carry out their perceived obligations or duties
20 or responsibilities, and within the trust literature
21 one distinction that I think is useful there is the
22 distinction that some people have made in terms of
23 the perception of trustworthiness of institutions

1 and authorities, a difference between the intention
2 to be trustworthy, which is kind of a motivational
3 dynamic or inference, but also the ability to be
4 trustworthy. Can they actually do what they say
5 they can do?

6 And I think in some ways with respect to
7 many of these kinds of infrastructures, that's where
8 the public needs to be reassured, that in fact,
9 regardless of the intentions of people, which are
10 always good, can they actually do what they say they
11 want to accomplish.

12 And my favorite example of that, I
13 guess, is I remember when I was doing my
14 dissertation on the arms race, I used to
15 occasionally hear these references to studies about
16 the survivability, for example, of the postal system
17 in a post-nuclear environment and that mail would be
18 delivered. It would be slower, but it would be
19 delivered, and it just was very hard for me to
20 imagine scenarios --

21 PARTICIPANT: It might be glowing.

22 MR. KRAMER: Yeah. I mean when you
23 really try to visualize it, it was very hard to do,

1 despite the rosy, optimistic reports of how through
2 snow, sleet, and nuclear snow this would happen. So
3 I just wanted to make that one point about the sense
4 of ability to be trustworthy as an important
5 dimension, which maybe has not been looked at
6 enough.

7 CHAIR CULNAN: It's all because David's
8 science fiction, you know, about carrying the mail.

9 MR. GARBER: Roy, I think you're next.

10 MR. LEWICKI: Yeah, Dan, Bob, and I did
11 a paper this fall where we tried to grapple with the
12 question of what trust is and some of the research
13 that's been done, and we defined trust picking up
14 very much on some of the terms that you used, Doris,
15 as an actor's confidence in and willingness to act
16 on the basis of the words, actions, and decisions of
17 another.

18 And I think for us there were two
19 things, again, that were critical in that
20 definition. One was confidence and a sense both in
21 a cognitive sense of predictability and an emotional
22 sense that you could sort of believe it was going to
23 happen, that it was going to occur, and a

1 willingness to base one's decisions on that
2 confidence.

3 So it's not only that I have some both
4 thoughts and feelings about predictability, but I'm
5 willing to act on that.

6 We saw, I think, something that we've
7 begun to grapple with and tried to struggle with in
8 the paper, which was that we see distrust as
9 somewhat different from and not necessarily just the
10 opposite of trust, and this is something that we're
11 struggling with and trying to understand.

12 We defined distrust as skepticism in and
13 unwillingness to act on the basis of the words or
14 actions or decisions of another, but I think in
15 spite of the fact that that may sound like it's just
16 on the negative end of the trust dynamic, that trust
17 and distrust, we think, are phenomenologically a bit
18 different, and it's one of the issues that I'd like
19 to pursue because of what I tried to grapple with in
20 my own little contribution here, which I think that
21 there are things that you can do to build trust, and
22 I think that there are things that you can do to
23 decrease distrust, and I think those are quite

1 different from each other.

2 And the impact, therefore, of where you
3 put your resources and what you worry about may be
4 to make some very key, strategic decisions and
5 choices.

6 CHAIR CULNAN: There's, in fact, a great
7 infrastructure example for that, that most people
8 expect the lights to come on when they flick the
9 switch, but how many people here have an alarm
10 clock, an electric alarm clock with a back-up
11 battery in it? Which doesn't say you don't have
12 confidence in the electricity, but, hey, it goes
13 off, and you want to get up on time.

14 So I think that sort of shows the --

15 MR. LEWICKI: The duality, yeah, and I
16 mean, we reviewed a lot of research, and I know
17 there's a lot more out there, that tries to grapple
18 with the question of what is trust and are trust and
19 distrust different from each other.

20 We think they are a bit different, and I
21 think it may be important to talk about them
22 differently as we begin to explore some of the
23 issues about how people feel about infrastructure

1 questions.

2 MR. GARBER: Dan.

3 MR. McALLISTER: Two quick comments.
4 One, I'd like to building off Doris' comments,
5 confidence and the expected performance, which
6 brings me back to Morton Deutsch's comment that
7 trust is the expectation that we will find what one
8 had hoped for rather than what one had feared.

9 If there's one thing we know about human
10 nature, what is to be human is to err, and in that
11 sense, which would you rather be trusted, in the
12 expectation that you would always deliver or in the
13 expectation that there would be grace when you
14 failed?

15 And trust builds into it the expectation
16 of imperfection, an expectation that somebody will
17 not deliver, and in that moment there is a benefit
18 of the doubt component, and that trust is linked not
19 so much in the expectation of performance, but the
20 judgment and the decision that will be made when
21 somebody doesn't deliver.

22 A scholar by the name of Rheabietzme
23 (phonetic), is his first name, but in 1962 he had a

1 nice measure of trust that included my boss, when he
2 makes decisions that don't appear to be in my best
3 interest, I know that they're driven by other
4 factors, as a nice element of a measure of trust
5 that moves us a little in a different direction.

6 The other comment that I'd like to make,
7 I am not a parent. I'm sure that there are quite a
8 few here who are, and I have been learning about
9 parenthood by studying trust. It's interesting.

10 (Laughter.)

11 MR. McALLISTER: It's interesting to
12 think --

13 PARTICIPANT: Which direction?

14 (Laughter.)

15 MR. McALLISTER: It's interesting to
16 think about what a secure attachment between the
17 child and the parent is. That is the child who sits
18 in the room and isn't nervous when the parent leaves
19 the room. It's the child who when the parent
20 returns to the room doesn't cling. This is the
21 child who can explore, be creative, and play and can
22 build attachments with others.

23 That is a trusting individual, and as

1 parents we want to nurture that sort of capacity in
2 our children, but one thing we don't want to do --
3 at least I'm extrapolating here -- is to create a
4 child who would trust all of the time. Also as
5 parents we would not want to trust the child in
6 everything. There are certain parameters and
7 domains, of course; there are things in which we
8 wouldn't want to trust.

9 I think of Nick Luhmann's comment that
10 trust is the positive expectation of the desired and
11 distrust is the positive expectation of the
12 undesired, and where there are certain areas where
13 you know your child isn't trustworthy, that's a
14 positive expectation of undesired. You put
15 boundaries on that. You create a domain in which
16 you can trust the child.

17 We bound the rationale, using Herb
18 Simon's term, and we create a domain in which we
19 expect and we understand that people will behave
20 rationally.

21 The challenge is to understand how as a
22 parent we can create a child who trusts as much as
23 possible, but knows when to catch the signs and to

1 distrust. Distrusting becomes so important because
2 trust is so important, and because we want to create
3 a society, a context within which people can trust
4 and trust well, we have to prepare them to know the
5 signs so that they can know when the positive
6 expectation of the undesired is, not to always be
7 vigilant, but to put in control so that vigilance
8 can be set aside and they can move ahead on the
9 trust side.

10 MR. GARBER: And I lost track between
11 David and Bob, but whichever.

12 MR. GEDDES: Let me add a few comments.
13 Lynne stimulated some thoughts based on the banking
14 industry, some thoughts from the private sector
15 perspective.

16 Local telephone companies have a
17 tremendous amount of trust. We have some questions
18 we've been using over the past couple of years that
19 mimic the GSS questions and really the level of
20 trust is at the highest levels you had at the very
21 beginning of the GSS.

22 And when we look at why this may happen,
23 I think Rod mentioned this kind of fiduciary, you

1 deliver what you're going to deliver. Dan mentioned
2 that as well.

3 Basically it works. You pick up the
4 phone; it works. You flip on the light switch; it
5 works. There's a tremendous amount of trust
6 engendered by that, as well as local presence. You
7 see repair trucks. When there's a storm, service is
8 restored very quickly.

9 It's interesting, however, at the same
10 time over the past decade, as you all know, there's
11 been a tremendous amount of what I think we could
12 probably honestly call a con game, which is the long
13 distance advertising or, depending on where you
14 live, you have seen or will in the very short future
15 see a lot of the same thing appearing in local
16 telephone advertising.

17 We know from research, and we follow
18 this very closely for obvious reasons that people
19 discount this and they recognize it for the con game
20 that it is, and they look to the underlying
21 fundamentals and discard the mud slinging, which is
22 seen as like political campaigning, and why couldn't
23 we get rid of this?

1 There's an interesting trust phenomenon.
2 One of the big fears of the established, the
3 incumbent local telephone companies is that new
4 entrants to the business come in as resellers. They
5 buy your services and package it and sell it under
6 another name, and that this will bring down public
7 confidence in the whole system even though it's the
8 existing providers that are delivering the
9 fundamentals.

10 I can assure you we do spend a lot of
11 time within more strategic marketing issues within
12 the phone companies, and they operate, and I've seen
13 this in a number of companies, they operate on the
14 belief that there is long-term trust to be built,
15 and they spend time advertising and marketing.

16 Now, the question that Lynne raised is,
17 you know, bankers are supposed to be the silent
18 partner who delivers the services. You know, should
19 they be spending money reminding you that your
20 telephone does work? Within the industries, they
21 tend to believe that it is valuable because they
22 will argue, "Let's look at the long-term value to us
23 of the customer. So we spend advertising and

1 marketing."

2 Yet from another perspective we could
3 say, "Let's get rid of the advertising department
4 and spend the money on building reliability in our
5 phone networks."

6 MR. GARBER: Is your comment a direct
7 follow-up to this one? I don't want to break the
8 chain of thought if it is.

9 MS. ZUCKER: It is because he's
10 addressing exactly the issue that I think was raised
11 with the alarm clock example, which is: how much
12 does it cost and how much are you willing to pay for
13 it?

14 Because a lot of what we're talking
15 about, you know, again, you have to be very careful
16 because building this trust does cost something, and
17 at least in terms of activities that you're not
18 engaging in that you would have been doing had you
19 not been building trust, even at that level.

20 But, you know, what you also have to
21 realize is that banks, even if you cut out the
22 advertising budget totally, what they do is they
23 hire economists to talk to clients, right, since we

1 do some of this, to talk to clients to basically
2 reassure them that the bank is making very good
3 decisions.

4 MR. GEDDES: They do the equivalent of
5 over engineering their network.

6 MS. ZUCKER: Exactly, exactly.

7 MR. GEDDES: And is that a good
8 investment of the money.

9 MS. ZUCKER: Right, and then the other
10 question that you raise, which is very important and
11 I want to make it explicit, is who should pay. You
12 know, if advertising cost, everyone bears it, what
13 about government? What role should it be?

14 You know, Michael and I were talking
15 this morning kind of about the elasticity idea that
16 we didn't really talk about in the paper, but, you
17 know, who should be in that business and how much
18 should be invested in constructing trust or, in the
19 case of one of the forms of it that's especially
20 governmental, is insurance. You know, how much
21 should the government be in the insurance business?

22 And is it really -- it's kind of the deep pocket
23 insurance problem.

1 So anyway, I'll leave it at that, but
2 those are the two issues I wanted to raise.

3 MR. BIES: Frank Crane had a great
4 quotation. He said you'll be deceived if you trust
5 too much, but you'll be in constant torment if you
6 don't trust enough. So there's that sort of curious
7 balancing act.

8 One thing that Rod said that's going to
9 take me back to something Doris said, talking about
10 intention of capability. One of the things that
11 makes the issue interesting to me is when there are
12 these performance failures, whether system failures
13 or something breaks down. Then it becomes
14 interesting politically, socially, and there's
15 always two questions that cross people's minds when
16 a failure occurs. Why? And how does it affect me,
17 or does it affect me?

18 And if it doesn't affect me, I'm
19 probably not going to worry about it, outside of
20 general sympathy for the people that are affected,
21 but the why question is important.

22 And one of the things we're going to
23 look at to go into the intention capability: was it

1 an act of God? Was it an act of terrorism, which
2 seems to have motivated much of this Commission? Or
3 was it a set of human errors, sort of normal
4 accidents that get created?

5 So they're going to ask that question in
6 terms of who did it. I mean all of the lawyers say,
7 "Who did it?"

8 But another question they're going to
9 ask about the capability issue is: should they have
10 known? Should they have anticipated? Okay. We're
11 going to ask that question.

12 My feeling is that people have the
13 expectation that government is all knowing; business
14 is all knowing. Business should have anticipated.

15 My colleague, Roy Lewicki, says he's
16 working on the computer on a paper. Okay? The
17 electricity goes out in Columbus, Ohio. Okay?
18 Well, geez, you know, they should have let me know
19 about five minutes in advance they were going to cut
20 off the power.

21 I mean I think we have high expectations
22 when there's failures that you should be
23 instantaneous. When my phone system goes down, my

1 electricity goes down, I want them there right then,
2 and they should have anticipated it.

3 I think that's the thing we're going to
4 have to think about, is the role of the expectations
5 that you should have known.

6 The other thing, just to add on to
7 something Dan said and Roy said, was I think
8 actually you should be both trustful and distrustful
9 in engaging in everybody. You see, part of the
10 issue with my daughter, to go back to parental
11 upbringing, is I want her to be trusting, but I also
12 want her to survive in the world, and she's going to
13 have to be distrusting.

14 It's hard to teach distrust until
15 there's trust violations, but you have to have both,
16 and you have to be a little more skeptical. Okay?
17 So it's the trust and distrust. Both can coexist
18 and make sense to me.

19 If I'm going to do electronic commerce
20 or do business, I want to be trusting and
21 distrusting.

22 MR. GARBER: Joe?

23 MR. MOORCONES: I had a question, and I

1 think when the discussion went around the room we
2 talked about institutions and we talked about
3 individuals, talked about prime investing resources
4 to build trust to be able to do things, and then
5 institutions as part of their job building trust,
6 individuals having transactions.

7 My question is: does trust have a time
8 frame? And if it does, does it vary for individuals
9 and institutions? And what can break it or change
10 that time frame if that's what you have, if it is
11 dependent on time?

12 And I don't know who to ask the question
13 to.

14 CHAIR CULNAN: Just lob it out there.

15 MR. GARBER: It's on the floor.

16 CHAIR CULNAN: Or we could keep going
17 and then somebody can come back and respond.

18 MR. GARBER: Doris.

19 MS. GRABER: It seems to me, yes, it
20 does have a time frame both in terms of building
21 trust and in terms of violations. So, for instance,
22 what's that poem about fool me once, you know, it's
23 okay, and fool me twice, you know, I'm stupid.

1 We have certain rules. At what point?
2 I mean we forgive certain kinds of transgressions as
3 whatever the error, but beyond that we don't go.

4 Then in terms of building trust, you
5 aren't going to build trust on the basis of just one
6 single experience. You have to have a number of
7 experiences. I think there are individual
8 variations.

9 So, for instance, we've talked about
10 kids, and kids tend to build trust very quickly and
11 also tend to be very disappointed. So you have a
12 kid that will go with some guy who says, "Help me
13 find your lost puppy," because that seems
14 trustworthy if anybody has a puppy. Yet the kid,
15 you know, breaks down in tears if the toy doesn't
16 perform the way he thinks when he's trusted that the
17 toy will behave the same way.

18 I think for grownups it tends to be a
19 longer period of time. I think there's also a
20 social psychological factor there. In terms of
21 institutions, I think it's the same thing. Before
22 you trust a brand name, for instance, it takes a
23 while to soak in.

1 Now, I would think that those limits
2 vary with individuals, with the type of institution,
3 with the ease of getting experience whether or not
4 expected performance will take place, and I also
5 think there's, again, a certain cultural kind of
6 thing. I know, for instance, I travel a lot, and in
7 many countries. Like, for instance, you go to
8 India, and people don't want to buy bottled milk
9 because they're afraid that it's going to be somehow
10 polluted. So the vendors bring the cow to the front
11 door and milk it right then and there so that you
12 can see it's not been diluted. So there's extreme
13 distrust of people's honesty.

14 And I think we can trace it in different
15 countries and how long it takes to establish trust
16 there I don't know, but I'm sure it's time bound.

17 MR. GARBER: Michael.

18 MR. DARBY: I wanted to talk a little
19 bit about banking and trust there. We had the power
20 example, and people are upset when their power
21 company fails, but it's even more upsetting, as some
22 of us in the West have been living through recently,
23 when there's a systemic failure, when the failure of

1 one company leads to the failure of a bunch of other
2 companies, and we have a large geographic area
3 without power.

4 And we see this same sort of thing in
5 banking. Sometimes one fails. In the Depression we
6 had many failing. The Panic of 1907 led to the
7 creation of the Fed. so that that wouldn't happen,
8 and then the Fed. didn't do its job.

9 In the '80s, we had the thrift
10 institutions failing not because they invested in
11 each other, but from a common cause of the rise in
12 interest rates, so that their liabilities fell in
13 value faster than their -- excuse me -- the value of
14 their assets fell faster than their liabilities. So
15 they were generally going bankrupt.

16 That crisis led to a drop in confidence.

17 In terms of the question about banks and financial
18 institutions and GSS, the '72 to '82 average, 34.9
19 percent had a great deal of confidence. By '83 to
20 '87, and only 12.5 had hardly any. By '83-'87, that
21 was down to 25.9 and up to 15.2. By '88 to '91, it
22 was down to 19.4 and up to 22.7.

23 So it's coming back now. By '96, we

1 were a little over 25 percent and back down to 16.8
2 on the hardly any side. So there is rebuilding.

3 But the fears among central bankers of
4 systemic collapse of the system are real. I
5 happened to be in a position in 1987. I was
6 Assistant Secretary of the Treasury for Economic
7 Policy, and during the October '87 crisis, I was in
8 charge of the derivative markets for the Treasury
9 because I was the only one who had ever invested in
10 them or understood them.

11 (Laughter.)

12 MR. DARBY: There are a few of us left
13 who weren't going shooting in Sweden.

14 And it was sort of interesting because
15 here you had all of these financial groups setting
16 up, you know, anticipating, if you will, failure.
17 So they set up lines of credit, five billion, \$12
18 billion line of credit so that they have offsetting
19 positions. They're making \$6 billion over here, and
20 they're losing \$6 billion over there. So their net
21 worth really isn't affected as long as all of the
22 transactions actually come through, and eventually
23 they all did come through.

1 But first there was a mismatch of
2 timing. So they needed to come up with \$6 billion
3 margin two hours before they were going to be paid
4 \$6 billion margin on another exchange. So that was
5 one issue.

6 And then there was the issue for the
7 banks of whether or not they should actually fulfill
8 their commitments under the line of credit. Should
9 they advance the \$6 billion without which the
10 Chicago Mercantile Exchange might fail?

11 And so they had, you know -- they were
12 talking to officials like me, and I was saying,
13 "Yes, Brokerage X, all famous, is good for it."
14 Now, I wasn't authorized to give the full faith and
15 credit. If they went against my house, it wasn't
16 going to help much, but they bought it, and they
17 delivered, and you know, we were going through about
18 12, 14 anxious hours as to whether or not we were
19 actually going to complete these transactions. As
20 long as they were completed, everybody was okay, but
21 if somebody got cold feet and said, "Well, I just
22 want to make sure that you're still meeting the
23 covenants and restrictions before I advance these

1 funds," then we went down the tubes.

2 So anyway, that's the reason that we
3 still have these systemic concerns today, I think,
4 among central bankers. Having lived through that
5 period, as Alan Greenspan did, we're all left
6 feeling that it's not as perfect as it looks, and we
7 want the public to think it is.

8 MR. GARBBER: I think before we break
9 we'll hear from Roy, and then we'll take a short
10 break, and we'll continue on with the discussion
11 because I think we're getting into other issues than
12 just the first question. So I'm very comfortable
13 with where we are on the agenda.

14 So, roy.

15 MR. LEWICKI: I just want to pick up on
16 something that Bob said, and I hear it in some of
17 the comments Michael made before. I think there's a
18 difference. Bob said the quest is for sort of
19 what's the cause or who did it, and as I tried to
20 say in the little introductory piece that I wrote, I
21 think there's a fundamental attribution question
22 that gets raised when we ask that question.

23 And the way I see it is whether the

1 failure was controllable or not controllable because
2 I think the emotional response is very different.

3 To go back to Bob's example, which was
4 the other night I was sitting at the computer, and
5 the power went out, and the whole street went out,
6 and I lost what I had been working on for about
7 three hours. Now, if I'd been sitting in Eastern
8 Europe, I would have been backing that up every 15
9 minutes, okay, because my experience in Eastern
10 Europe is that that's a regular event, and in
11 Columbus, Ohio, it's not a regular event for the
12 power to go out.

13 So in the first place, it shapes my
14 expectations. The second is that when I expect it
15 to perform and it doesn't perform and my attribution
16 is this is management incompetence or they don't
17 know how to run a simple power company and keep the
18 power going through the grid, my response is anger,
19 and when my response is anger, okay, it affects my
20 trust level.

21 On the other hand, if this is an act of
22 God, if this is sort of an uncontrollable
23 circumstance, my response is fear, and I think that

1 affects my distrust level.

2 And so I think how we decide or how we
3 account for what's going on in terms of whether it's
4 controllable or uncontrollable and my own emotional
5 response, anger, fear or perhaps a mixture of the
6 two, has a lot to do then with what drives the trust
7 and the distrust dynamics.

8 And as we get into this, I hope we could
9 begin to maybe think about those two alternative
10 scenarios and maybe look at the consequences of
11 exploring each.

12 MR. GARBBER: Okay. Well, it's time for
13 our break, but before we do, I would like to
14 recognize Paul Kleindorfer, who joined us from the
15 University of Pennsylvania.

16 Paul, if you want to give a brief 20
17 second introduction to your --

18 MR. KLEINDORFER: Critical
19 infrastructure failed me this morning. Our train
20 was --

21 (Laughter.)

22 MR. KLEINDORFER: -- was held for an
23 hour in 30th Street station, and I guess the only

1 other thing I'll say is that when I told my wife
2 what I was going to, she said, "You know, the last
3 thing I need on this planet is for the telephone or
4 the electric power to start criticizing me when I
5 turn it on."

6 (Laughter.)

7 PARTICIPANT: That sounds like it's
8 grounded in fear.

9 CHAIR CULNAN: But also you've got
10 different backgrounds here. You might point out
11 your background is in risk management.

12 MR. KLEINDORFER: I've spent most of my
13 adult life studying utilities and managerial
14 economics and regulatory issues. I've most recently
15 been dealing with catastrophic risk and their
16 consequences for risk bearing capabilities.
17 Californians are quite interested in this,
18 Floridians, and so forth, but there's obviously an
19 intersection between those that is of interest to
20 this group.

21 MR. GARBER: Okay. With that, let's
22 take 15 minutes. About ten to 11 if we could
23 reassemble.

1 (Whereupon, the foregoing matter went
2 off the record at 10:35 a.m. and went
3 back on the record at 10:57 a.m.)

4 MR. GARBER: If we could resume please,
5 as we drive along toward our lunch break and
6 whatnot.

7 I think we had a great discussion before
8 the break, and I don't want to lose that momentum
9 that we had. Bob, I think you probably were the --

10 MR. BIES: No, I think actually Nancy.

11 MR. GARBER: Well, Nancy took her sign
12 down. So I didn't know whether that meant she
13 wanted to eat or wait or whatever it was.

14 MR. BIES: Well, I'll make it brief. In
15 response to Joe's question, he said does trust have
16 a time frame. Again, I'd like to frame it
17 differently. Does distrust have a time frame,
18 again, getting back into this sort of failure frame?

19 And I think for some it probably does.
20 I mean, if I have a really bad event, I won't touch
21 the system anymore, but there's a couple of things
22 that remind me that maybe we overreact, that
23 distrust is really short-lived.

1 We recently had James Varney, the
2 founder of AOL, come here, commencement speaker, and
3 he talked about their 18 and a half hour outage, and
4 that now they have more subscribers to AOL than they
5 had before. He didn't recommend it as a marketing
6 strategy.

7 (Laughter.)

8 MR. BIES: But he had more subscribers.

9 A plane crashes. There is a drop in
10 confidence. Okay? Insurance sales go up, but
11 people go back and fly.

12 So I think that there's ways you can buy
13 people back. You can create incentives to get
14 people back to play the system, but also one of the
15 things that struck me in Roy's example is he had no
16 other choice, I mean, dealing with the electrical
17 company in Columbus. It's a dependency-power thing.

18

19 If I have choices, I may act out my
20 distrust, but if there's only one game in town, what
21 am I going to do? I may be distrustful and build in
22 ways to protect myself, but I have no choice. I
23 have no choice at all.

1 So I think that's part of the game. If
2 we have some alternative carriers, then maybe I can
3 play the game out.

4 CHAIR CULNAN: Right. I mean how many
5 people are flying Value Jet still?

6 (Laughter.)

7 MR. BIES: How many people flew Value
8 Jet before?

9 CHAIR CULNAN: Right.

10 MR. BIES: There's no baseline data
11 here.

12 MR. MOORCONES: I have some data. My
13 daughter just flew Value Jet to come up to
14 Washington, and her analysis was, "My God, if they
15 got them back up again, it must be the safest
16 airline in the world."

17 MR. GARBER: Well, I had the same
18 opinion with U.S. Air, a little bit more established
19 airline that had some disasters and whatnot, and my
20 opinion was -- my travel agent said, when I said,
21 "Hey, I'd like a U.S. Air flight," they said, "Well,
22 you know, you're the only one that's asked for that
23 recently."

1 And I said, "Well, you know, they
2 probably are being far more careful at this stage in
3 checking their maintenance and their operations than
4 probably some of these other folks who may not have
5 stepped their business up to the level that they
6 have to because one more time, we get to the
7 elasticity issue and there are choices there."

8 And one more disaster, you know, could
9 doom the airline, as it did, you know, some
10 predecessors. Allegheny Airline, which some of you
11 may recall around here, had a series of disasters,
12 and essentially, you know, that became U.S. Air, but
13 they had to change their name and change the brand
14 and buy Piedmont and everything else to do that, but
15 it was quite a deal.

16 MS. GRABER: Would you go back to your
17 broker after he lost all of your money for you? I
18 think it depends.

19 MR. GARBER: I think it depends. I
20 guess a different thing is do you sell your mutual
21 fund after it goes down for a year, and it's a
22 question of, well, you know, it's done. Now where
23 do I think it's going to go now, which is the same

1 airplane thing. I mean, the crash is done, and
2 what's my expectation of what's going to happen on
3 the next flight? And if I think the next flight is
4 going to be safer or the next year, because of the
5 niche that the fund or stock invests in or the
6 broker is expert in is going to be the hot issue, if
7 that's my expectation, which goes back to some of
8 the other discussion here in the room, I think I
9 would stick with it.

10 I mean I have done that, and sometimes
11 it works and sometime sit doesn't.

12 MS. GRABER: Well, isn't it a question
13 of achievable competence? If you figure that there
14 was a slip-up and somebody was incompetent like on
15 an air craft, but now, you know, the government is
16 going to check and make sure that all of the
17 standards are met, so it's going to be okay, on the
18 one hand. Yet, you know, my broker example, if the
19 guy's just dumb, he can't do it, and I can't trust
20 the guy or he's dishonest or whatever, and so I
21 think, I mean, there is a difference in whether or
22 not there's a recovery in something where there's a
23 choice.

1 When you have no choice, if it's just
2 one carrier, there's nothing you can do, and then I
3 think you tend to think it's probably trustworthy
4 because it's very uncomfortable to think I'm flying
5 on this airline, and you know, it's very likely to
6 crash. It gives you stomach cramps.

7 MR. GARBER: Ray.

8 MR. HIEBERT: I want to come back to a
9 different point that Doris made earlier about
10 culture because I think culture is a very strong
11 component to both trust and distrust.

12 Having spent the last six years going to
13 Eastern Europe very often, I found a whole culture
14 there that has no trust whatsoever in anything,
15 especially government, even the former or even the
16 current government, and no trust in the new business
17 enterprises, as well, no trust in the telephone, as
18 David mentioned.

19 Earlier I spent a lot of time over a 15-
20 year period in Africa, and another place where the
21 level of trust is nearly zero on the part of people
22 in any institution whatsoever, and in both places
23 even on a personal level, not very much trust.

1 So that leads me to wonder what it is
2 about the larger society that creates these kinds of
3 environments. I think in the case of both African
4 and communist countries the dominance of one
5 particular party or the dominance of the government
6 over all public dialogue and public exchange certain
7 didn't build confidence and trust in those
8 societies. It destroyed it.

9 That leads me to think that another
10 thing that's come out a little bit here is the fact
11 that options and choices and competition actually
12 help trust, help develop trust in society because we
13 can make choices between what we think is good and
14 what isn't.

15 Another thing is shared perceptions
16 about the world. Looking around this table, I would
17 say that all of us pretty much share the same
18 perceptions about where we are and who we are, what
19 our society is all about, but increasingly those
20 kinds of perceptions are not shared by a lot of
21 people in our own society.

22 We're becoming increasingly a multi-
23 cultural society, and large parts of what we call

1 America have completely different perceptions from
2 those of us who are sitting around this table.

3 Maybe some of you saw this morning's
4 Washington Post article on the front page of the
5 Style section about a lawyer, professor of law, G.W.
6 here in Washington, a black lawyer, a very
7 accomplished black lawyer, graduate of Yale, Harvard
8 Law School, former federal prosecutor in Washington,
9 now a professor of law, who is opening espousing the
10 fact that black juries should free black people on
11 trial, that because the system is wrong, because the
12 perception of blacks about the justice system in
13 this country is completely different from the
14 perception of justice by the rest of us sitting
15 around this table and those cultures that we
16 represent.

17 It's a real cross-cultural problem that
18 I think is going to only become greater in our
19 society, and I think that what we need are people
20 who understand the problems of communicating across
21 cultures, bringing cultures together, but also
22 interpreting one culture to another, and this is
23 where I think public relations can come to play, but

1 that's another aspect of what I want to talk about,
2 and I'll save that for later.

3 MR. GARBER: Paul.

4 MR. KLEINDORFER: Just to follow up
5 briefly on some thoughts raised in addition to the
6 perspectives of anthropology, cultural anthropology
7 and sociology, those of economics, and perhaps point
8 to my own favorite biases in this direction relative
9 to trust, but certainly building on, I think, the
10 shared comments about these are beliefs or confident
11 beliefs, that is, trust is, that you can expect some
12 behavior of an institution or another individual. I
13 think that forms the core of what we've heard here
14 this morning.

15 What, in fact, makes trust so
16 fascinating from an economic perspective is, indeed,
17 that it does clearly intersect very strongly with
18 social and cultural foundations of society. We
19 take, for example, the works of Max Weber on the
20 Protestant ethic and what really gave rise to the
21 success of Protestantism. In other societies that
22 he looked at he had similar conclusions that these
23 shared values and shared experiences were extremely

1 important in allowing people to have expectations
2 mutually about what their colleagues were going to
3 do in certain situations.

4 And that view assisted them in not
5 having to write what we would perhaps consider to be
6 Jesuit order blanks or what economists call
7 neoclassical contracts that account for all possible
8 contingencies. If you had to do that, all society
9 would stop.

10 So it's very interesting. Georg Simmel,
11 for example, talking about one of the most important
12 institutions of modern society, "goeut" (phonetic),
13 money, brought clearly the issue of trust to the
14 fore and indicated that without this, without the
15 trust that, in fact, you know, these little pieces
16 of paper that we carry around and so forth are going
17 to be -- in Michael's interesting story about
18 banking and derivatives, of course, there was a
19 little bit of a counterparty risk -- but money has
20 got counterparty risk, too, and someone we manage as
21 a society to trust that this institution, and
22 extremely important institutions, that the monetary
23 system will work.

1 to all other infrastructures. We not only have
2 expectations about what they will do, but we
3 actually, as was indicated in several earlier
4 comments, we actually undertake behavior as real
5 economic consequences based on this.

6 And so I think the most important thing
7 about trust from an economic perspective and
8 critical infrastructure and, let's say, disruptions
9 that might arise from various acts of God or other
10 acts, other disruptions in the system, is to take
11 this two-phase or perhaps three-phase model into
12 account and say that these expectations cause
13 economic actions to be undertaken both individually
14 and in groups.

15 But then, secondly, we see that people
16 on the event, when certain events occur, will, in
17 fact, undertake other actions immediately upon those
18 events occurring, and they will do this based on
19 their understanding and their expectations about the
20 principled behavior, the prudent behavior, what's
21 likely going on out there in the infrastructure.
22 They will do that, and they may be wrong. They may
23 have confident misperceptions about these matters.

1 And then after the fact, there will be
2 blame or there will be responsibility attributed,
3 and people will adjust their beliefs.

4 And so, for example, you take certain
5 airline accidents. People quickly get over them.
6 They say, "Ah, yes, it was, you know, like the
7 Denver accident. A triple failure in all of the
8 systems. It's been explained. I can understand
9 this. I can see how it could have happened. Act of
10 God. No reason not to fly, you know, United again,"
11 right?

12 But the Value Jet case there were
13 certain things uncovered as part of that that
14 suggested a more sinister underpinning to that
15 particular accident, and therefore the ex post, the
16 third stage of this gave rise to other issues.

17 I think what we see -- just generally
18 I'm looking forward to exploring this over the
19 course of the day and perhaps following up on the
20 issues that were just raised -- is that trust and
21 critical infrastructure have different implications
22 depending on where one is.

23 I'll just provide a two-dimensional grid

1 based on listening to what I've heard here. On one
2 dimension, one can think of decisions that are
3 primarily private decisions all the way to results
4 that are primarily public. Think of this as the
5 character of the good that's being provided.

6 Now, in electric power, for example, the
7 normal thing is a private good, but reliability and
8 the reliability of the system and the integrity of
9 the system becomes more of a public good. It's not
10 quite a public good, but it is more of a public
11 good.

12 You get into issues associated with
13 defense as a part of the infrastructure, and it's
14 almost a pure public good. You cannot provide it to
15 anyone without providing it to all. So that's one
16 axis.

17 And on the other axis, the issue that
18 Ray was just indicating: how easy is it to
19 establish and monitor trust, and what are the
20 drivers of that ease? Let's call it the social
21 clarity of the trust relationship.

22 And if there's competition, if it's a
23 very simple issue that you're dealing with, you

1 know, postal services, we think we understand what
2 it means to put a stamp on, collect the mail, get
3 sent somewhere. That's a different matter than,
4 let's say, nuclear power or something of this sort,
5 but what is the ease with which?

6 Now, where we really have problems in
7 critical infrastructure in terms of the economic
8 decisions are in those areas in which you move to
9 the far right in that two-dimensional picture I hope
10 I've evoked for your eye. It's those areas where
11 it's difficult to monitor, to establish and monitor,
12 trust because even the phenomenon is complicated or
13 for other reasons that social psychologists or
14 others may put on the table before us and where it's
15 primarily a public good.

16 If it's private and it's clear, then we
17 say, "Hey, that's your responsibility. If you don't
18 like what you're getting, go out and get something
19 else. I mean it's your personal responsibility to
20 assure that you're getting what it is that you
21 want." It's a private good. You're getting the
22 value that you're paying for it. You understand it.

23 It's simple enough to establish and maintain trust.

1 A lot of competitive alternatives out there; pick
2 one. Don't come complaining to me, right, the
3 President's Commission on this matter. We want to
4 worry about things which are more difficult.

5 So I think if you think about the
6 economic consequences in this way, you'll see that
7 they really are primarily in that right-hand
8 coordinate where things are more difficult to
9 establish and maintain and where they have more of a
10 public character to them.

11 And what that is, we could perhaps take
12 up in the course of the discussion.

13 MR. GARBER: Thanks.

14 Tom.

15 MR. TRIPP: When I think about the time
16 frame of trust and especially distrust, and I was
17 thinking about some of the cultural implications,
18 the word "expect" or "expectations" confuses me, and
19 when I think of I trust someone, I expect them to do
20 something. That can mean one of at least two
21 different things. Either I predict that you will or
22 I demand that you do, which can be very different.

23 One tends to be normative in terms of

1 making sure that people follow social norms, and the
2 other tends to be sheer prediction.

3 With that distinction I can think of it
4 would be possible to say that if I'm talking about
5 prediction, I can fully trust a Machiavellian. This
6 person is simply out for his or her own interest,
7 but, you know, they're pretty simple in character.
8 They're reliable. I can predict what they're going
9 to do. Does that mean that I trust them?

10 Okay. Most people would say, "No,
11 that's not what I mean by trust." So there's sort
12 of this normative component to trust, and what that
13 raises for me then when we're talking about building
14 trust, we're talking about building predictability,
15 simply building reliability so people can plan their
16 lives, or are we talking about making sure that
17 people follow norms?

18 Now, on the infrastructures, how do
19 these norms develop? We've talked a little bit
20 about predictability, but how do the norms develop?

21 And I think about the Internet and
22 computers, and part of this is a power issue because
23 we still have choice, but why are the norms so much

1 different for that industry, which is horribly
2 unreliable. I mean, we wouldn't tolerate these
3 number of failures from virtually any other
4 industry, but we do in the computing industry.

5 We expect, yeah, my computer is going to
6 crash once a day, you know, and deal with that.
7 Now, part of that, supposedly I have choice.
8 Typical industry is kind of the same, so I may not,
9 but you know, as the Internet develops and it
10 becomes less archaic and the regulation starts
11 getting involved, then how do we manage those types
12 of norms, and exactly what are we talking about?

13 I don't know if I have a clear question
14 or a clear answer, but that distinction or the lack
15 of that distinction confuses me.

16 MR. MITCHELL: I think Tom anticipated a
17 comment I was going to make, but I'm having an
18 awfully good time taking some of the observations
19 that are being made around the table and thinking
20 about them in terms of the two charges that were
21 given the Commission.

22 One is to assess threats to and
23 vulnerabilities of the critical infrastructures to

1 physical problems or physical attack, and the other
2 on the cyber side, cyber vulnerabilities and cyber
3 threats, and when you talk about things like our
4 shared perception of the world and the expectations
5 that we have of, say, infrastructure services, I
6 can't help but think that there are some very real
7 differences between the expectations we have with
8 respect to physical resiliency of our
9 infrastructures and cyber resiliency of our
10 infrastructures, perhaps directly related to the
11 much wider variety of expectation we have with
12 respect to their cyber resiliency.

13 There are information haves and have
14 nots. There are widely differing expectations of
15 the reliability of certain security measures, for
16 example, and so while our expectations differ, the
17 degree to which those expectations are being met
18 also differs, which makes in a sense the whole issue
19 of trust and confidence on the cyber side somewhat
20 more fickle and somewhat more prone to wild
21 fluctuation than the common expectations we share on
22 the physical side.

23 After all, we can look at a piece of

1 planking or a deck and make some common observations
2 about the relative strength of that, and we can make
3 some observations about the chances of someone
4 wheeling up a truck bomb to our place of business on
5 any particular morning, but those aren't necessarily
6 the sorts of shared views that we would have with
7 respect to the security of our computer networks or
8 the strength of our firewalls that protect our data.

9 And so, well, I'm having a good time
10 playing through those issues.

11 MR. KLEINDORFER: Just one little
12 footnote to that comment is certain parts of the
13 cyber resiliency I'm not concerned about, even
14 though they are, in fact, as pointed out here quite
15 unreliable because there are all sorts of incentives
16 for the economic agents involved to get things right
17 eventually and for consumers to, in fact, make the
18 right choices.

19 If they don't, you know, that's not a
20 problem that I think we're concerned with, but on
21 the other hand, take the banking industry. We heard
22 Alice Rivlin recently discuss some of the issues on
23 credit payments, credit card payments and so on. If

1 there is a threat to that, to the security of that,
2 there's no "there" on there anymore in respect to,
3 you know, where you're signing things and so forth.

4 There we would have a public good,
5 really the quality and cyber resilience of that
6 network which, in fact, could have immense
7 consequences.

8 You know, just to take that as an
9 example of some aspects of cyber resiliency and so
10 on, you know, are going to get fixed by the market,
11 but some others are extremely important focal
12 points, I think, for the Commission.

13 MR. GARBER: Brian.

14 MR. HOEY: Just to follow up on
15 something Steve said, one of the central concerns of
16 the Commission is to determine what the role of
17 government should be related to the issue of
18 infrastructure protection, and I would take that
19 another step by saying what's the impact of third
20 parties, i.e., a government body or an industry
21 association, let's say, and forging trust,
22 maintaining it or building it among or between these
23 infrastructures.

1 And clearly in this country we have a
2 sufficient body of regulation where that helps
3 preserve trust. My own experience in Bosnia showed
4 me that without such a framework, you run the risk
5 of bringing in third parties that can fail or
6 succeed. Specifically the U.N. came in, had nothing
7 but a mandate to keep warring factions apart, and
8 wound up being despised by most of the people.

9 NATO came in under the auspices of a
10 Dayton agreement with an articulated strategy, set
11 of objectives, and was very well respected both in
12 terms of the framework it had to work from and its
13 institutional framework.

14 I don't know if anyone else has ideas
15 about the role of third parties, but I think it
16 would be useful.

17 CHAIR CULNAN: We want to hit that
18 especially after lunch because that's one of the
19 take-aways that a number of us on the Commission
20 think we need to elicit from this group. So thanks
21 for reminding us of that.

22 MR. GARBER: Michael.

23 MR. DARBY: That reminds me that most of

1 what economists have worked on in terms of trust has
2 to do not with you were saying basically an
3 expectation that norms will be fulfilled, but
4 comments would be more likely to say an expectation
5 that contracts would be fulfilled even if they
6 really were norms. That's just part of the implicit
7 contract.

8 But I think a lot of the or the bulk of
9 the work has been instead on the issue of trusting
10 someone's judgment where you're really trusting an
11 agent to make a decision for you that you won't have
12 the information to make, you're trusting Ford to
13 design the Pinto, making the cost-benefit
14 calculations you would make if you had that expert
15 knowledge and position. You're trusting the banker
16 to be a prudent investor, not imprudent in the sense
17 of avoiding all risk and not imprudent in terms of
18 taking inappropriate levels of risk.

19 So that it seems to me that besides the
20 sort of fulfilling expectations, there's another
21 aspect of trust there. Do you trust somebody to
22 take your proxy and do with it properly? And that
23 seems to me to be an important aspect of the

1 commercial transactions, too.

2 MR. GARBER: Tom.

3 MR. TYLER: Well, I think that a lot of
4 our discussion has focused on trust and
5 infrastructure in a more technological way, but I'd
6 also like to make a plug for what I would call trust
7 in the sense of confidence in public authorities or
8 trust in the motives of authorities as a very
9 important form of trust and important form of what's
10 often called social capital.

11 And the reason that I would want to
12 emphasize that is that the research that's been done
13 suggests that the most crucial issue when citizens
14 are responding to government authorities and
15 deciding whether to essentially voluntarily defer to
16 those authorities, obey laws, accept decisions is
17 those citizens' judgments of whether they trust the
18 motives of the authorities or institutions that
19 they're dealing with, so that there's a tremendous
20 gain in discretionary capability on the part of
21 government authorities if they are trusted by
22 citizens.

23 It's very costly and ineffective for

1 government to try to gain compliance through, for
2 example, threatening people, rewarding people. It's
3 much easier for government to function if it can
4 basically expect citizens to defer to its decisions.

5 And in all of the studies that have been
6 done, we find that the most important factor that
7 people are considering when they're making that
8 decision about deference is trust, and that leads me
9 to what I think it is a second important point,
10 which I think should be highlighted, and that is
11 that there's a lot of public opinion research that
12 suggests that trust in government is quite low and
13 has been declining for decades.

14 So that we started out with an actually
15 kind of optimistic view of trust, but I think that's
16 because we're conceptualizing trust as trust in the
17 phone company, but what if it's trust in the
18 government?

19 Trust in the government and the motives
20 of government officials and institutions is actually
21 quite low and has been steadily declining for
22 decades. So I think we should highlight that as an
23 important problem to be concerned about.

1 The final thing I would want to suggest
2 is that we also have a broader conception of why
3 that trust might be declining. One argument that's
4 implied by some of what we've been hearing is that
5 it's related to feelings that problems aren't being
6 solved. Expectations aren't being met, yet a lot of
7 the research that's been done suggests that that's
8 not the only or even the crucial factor.

9 For example, if you ask the question,
10 are politicians competent to solve problems, and you
11 compare it to whether you think politicians have
12 integrity, it's integrity that predicts trust, not
13 competence, or if you ask the question, how are
14 feelings of obligation to accept and obey government
15 decisions affected by the actions of Congress or
16 other government bodies, it's not that people think
17 that the solutions, the policies are good policies
18 or bad policies. It's judgments about how those
19 policies are being made, which are then linked to
20 trust in the integrity and motives of Congressmen,
21 of Congress.

22 So that I think as Tom was mentioning
23 when he talked about norms, people have a very moral

1 orientation towards government and government
2 officials, and I think that a lot of the distrust
3 and suspicion is linked to a feeling of a lack of
4 morality or moral integrity, more than to a sense
5 that individuals won't perform in a certain way or
6 won't meet expectations for performance.

7 So I think we need to also have that
8 social or interpersonal component, the feeling of a
9 lack of trust in the motives or character of leaders
10 and institutions as an additional issue to consider.

11 MR. GARBER: An appropriately current
12 issue.

13 MR. TYLER: Absolutely, yes.

14 MR. GARBER: Around this town.

15 MR. TYLER: Yes.

16 MR. GARBER: Just to manage expectations
17 here, I've got Rod, Nancy, Dan, David, Doris, and
18 Ray, in that order, as we continue on just so you'll
19 kind of know what the pecking order is here.

20 Rod.

21 MR. KRAMER: Well, I was actually going
22 to defer, but I'd say real quickly in response to
23 Steve's points and questions about resiliency, I've

1 also been interested in the issue of sort of the
2 resilience or fragility of trust in social systems,
3 and I just wanted to very quickly comment on a piece
4 that might be relevant to this Commission, if you're
5 not already familiar with it, and that is, you know,
6 there's often an appeal in terms of approaching
7 these problems to seek large-scale interventions or
8 solutions because they're large-scale problems.

9 But Karl Weick a number of years ago
10 wrote a very wonderful paper called "Small Wins,"
11 and argued that for a lot of social problems like
12 the prevention of nuclear war and violence and other
13 things and civil unrest, that we should seek small
14 win solutions and interventions.

15 And the example he gave in a paper which
16 I always really liked because I worked in the
17 library as an undergraduate was that when people
18 were first trying to deal with the problem in
19 American culture of homophobia and fear of
20 homosexuality and these kinds of things, that one of
21 the things that gay activists did in terms of
22 breaking that down into a decomposable problem is
23 have homosexuality reclassified from the HQ section,

1 if I remember right, which was sexual deviations and
2 abnormalities and aberrations, all of these horrible
3 labels, to alternative life style.

4 So that means that any time a young
5 person would go into the library to find out about
6 homosexuality, they would not have to go to the
7 sexual deviation, aberration section of the library,
8 which was usually, by the way, a locked case section
9 of the library and you have to go to and ask for it,
10 but you could go -- and I worked in the locked case
11 section, and that's how I know.

12 (Laughter.)

13 MR. KRAMER: That's where all the juicy
14 stuff was.

15 But instead privately go to the
16 alternative life style section, and he argued that
17 was a wonderful, small win in terms of social
18 change.

19 And a lot of these problems of creating
20 trust in infrastructures might be solvable partly by
21 seeking constantly over the long haul small wins,
22 redesigning confidence building acts and systems and
23 demonstrations that people can slowly build trust,

1 and that cumulatively might lead to resilience, much
2 more than some large-scale experiment that might
3 fail dramatically and, therefore, undermine trust.

4 MR. GARBER: Nancy?

5 MS. WONG: Well, actually I have a
6 question, and so I'm going to throw it out and then
7 as people think of perhaps a good response to it,
8 they can just bring it up.

9 My question was related to the
10 difference and the distinction between confidence
11 and trust, and what are the characterizations that
12 distinguish between those two? And then what would
13 be the differences in the consequences, if any, in
14 terms of loss of trust or loss of confidence?

15 MR. GARBER: Does anybody want to make
16 an immediate response? You can jump to the head of
17 the line.

18 MS. GRABER: Okay. Well, thanks.

19 Actually I was going to address this
20 issue because I think we've been talking a lot in
21 sort of a cognitive kind of way, that you have trust
22 because certain things are happening. Yet as we
23 talk we keep on saying feelings of trust, and I

1 think we have ignored the emotional part, and I
2 think that is, as I see it, the difference between,
3 you know, just having confidence in something, that
4 something is going to happen, and trust as such,
5 which involves the emotional component.

6 And when Tom Tyler was talking about the
7 trust in government is going down, it sort of
8 reminded me that while, on the one hand, we do not
9 trust our public officials, in some ways we trust
10 the United States, the country, you know. There are
11 still feelings of patriotism and again, feelings of
12 patriotism. You see the flag. You can appeal to
13 people. This is your duty as a citizen, which again
14 becomes at least to a large extent an emotional
15 component.

16 And I think when we talk about trust and
17 the restoring of trust, somehow tapping into that
18 emotional component is important.

19 There's another thing that demonstrates
20 this. We talk about people not trusting
21 politicians. On the other hands, surveys show when
22 you talk of government services in general, when you
23 talk about their interrelationships with a

1 particular government official or their reaction to
2 a particular service like, you know, welfare
3 service, et cetera, there's much more trust there,
4 and I think it is because of the closer
5 interpersonal level which allows that emotional
6 component to become involved, and it's not just the
7 cold confidence, the calculating aspects, but the
8 emotional component.

9 MR. GARBER: Thanks.

10 Dan.

11 MR. McALLISTER: I've heard a lot of
12 discussion about trust in kind of implicit targets,
13 and I just wanted to explore or not explore, but
14 kind of craft out a bit of the terrain of trust for
15 what and trust in what.

16 When you look at trust in systems,
17 something tells me that systems and infrastructures
18 don't exist to be trusted in and of themselves
19 because they are virtuous, because we're better off
20 with a virtuous system, but rather, systems exist as
21 a skeleton, a framework within which people relate
22 and which there is social activity going on.

23 Two observations that were interesting

1 that I noted, between 30 years ago and now we are so
2 much closer to being able to bridge time and space
3 by communication technologies.

4 The other, a statistic that's
5 interesting from Robert Putnam is that the
6 percentage of people participating in community
7 organizations, voluntary organizations, any of a
8 number of ways of participating in society is at an
9 all time low, and I don't think we want to create a
10 causal connection there.

11 But we want to say how can our
12 infrastructures nurture society, and when you think
13 of confidence and trust, and we don't necessarily
14 want to think about trust in the system, although
15 that's important, how do I frame it? What are the
16 ways that people relate to each other?

17 They relate to each other in commerce,
18 doing transactions, call it market transactions.
19 They relate to each other in terms of authority
20 relations. They relate to each other in terms of
21 communal sharing and rapport.

22 And I think those are three dimensions
23 that you could think of as types of relationships

1 that people have. At an interpersonal level they
2 can be compartmentalized. When you think of the
3 relation to the system, it's less clear that they
4 can be compartmentalized.

5 The importance is trust persists as long
6 as the number of disappointments is kept low, and if
7 we create an infrastructure that allows people to
8 relate to each other one on one, this is kind of an
9 architecture within which transactions take place.

10 Over the Internet, for instance,
11 transactions take place. People meet, and communal
12 sharing relationships take place, and authority is
13 expanded, and the arms of authority can be mobilized
14 towards ends.

15 If in any of these three different
16 domains of relationships disappointments emerge,
17 relationships at a personal level, who know the sort
18 of people that you can meet on the Net? If the
19 technology is used as an instrument of domination
20 and control and power, you can see that the trust
21 within or trust among people utilizing the system
22 has to be maintained if the integrity of the trust
23 of the system is to be maintained itself.

1 I like to think of it as a little three-
2 by-two matrix of trust in the system and trust among
3 people within the system, and then look at that
4 communal sharing, that market transactions, and that
5 authority relationships dimension.

6 And almost in order to have trust in the
7 system, the architecture, the infrastructure that
8 we're concerned about, we're almost responsible for
9 being good parents and nurturing people so that they
10 can develop rapport, all of those things that people
11 do within the system and nurture society.

12 Just wanting to promote that as a way of
13 thinking about the broader scope of the domains
14 where trust has to emerge and the sort of things
15 that it functions for.

16 MR. GARBER: David.

17 MR. GEDDES: I just want to see if I
18 could lead Tom Tyler to take the next leap, which is
19 most of the critical infrastructures we're talking
20 about are privately owned, and confidence in
21 government is going down, but to have our
22 electricity system work, we rely on the electric
23 company whose management and executives are

1 invisible to us and, if anything, see themselves as
2 beholden to their shareholders.

3 How does that play into what's known
4 about that? Can we go a step beyond your comments
5 on government to confidence in the leaders of
6 private organizations?

7 MR. TYLER: Well, there is research on
8 business leaders and confidence in business leaders,
9 and my impression is that it suggests that, in
10 general, confidence in business leaders is declining
11 as well, and in fact, confidence in most leaders of
12 organizations, religious leaders, the mass media, is
13 declining, and it's actually an interesting
14 phenomenon in our society that essentially
15 confidence in leaders of all major kinds of
16 institutions is declining.

17 So I don't think that we would
18 necessarily think that public/private is going to be
19 a crucial distinction.

20 MR. GARBER: Ray.

21 MR. HIEBERT: Since surveys on trust
22 have been raised, I thought I'd just share with you
23 the survey that the Washington Post published

1 earlier this month just so we can put it on the
2 table. There are a lot of these surveys, and a lot
3 of them get into the media, but this one asked
4 Americans in whom they have a lot of trust, and only
5 24 percent said local television. Twenty-two
6 percent said their local daily newspapers. Fourteen
7 percent said their local government. Only nine
8 percent said their state government, and only six
9 percent the federal government, which sort of
10 reinforces what's been said.

11 But at the same time, as Doris has
12 indicated, the level of confidence in the President
13 of this country, in spite of all the problems he's
14 been having, is at a remarkably high level.

15 One of the things that all of this makes
16 me think is that by the mass media continuing to
17 publish surveys on how little we trust the
18 government, I wonder if they don't actually inspire
19 a lot of distrust.

20 One of the areas that I've been very
21 concerned with has been the effect of television,
22 and a lot of studies show that the more television
23 you watch, the more you think you're going to be a

1 victim of violent crime. The more television you
2 watch, the less you trust the institutions in your
3 own community.

4 So there is some kind of relationship,
5 and I think we ought to be concerned with that as
6 well.

7 MR. GARBER: And we want to get into
8 that even in more detail here with this group
9 probably after lunch, but thanks for bringing up the
10 point, and I think it's something we need to
11 investigate as we go around and continue this
12 discussion.

13 Michael.

14 MR. DARBY: I wanted to follow up on Tom
15 Tyler's comment and also something provoked by Ray's
16 comment before last, which is the trust in
17 government, trust in the private/public.

18 You were remarking on the trust in the
19 communist countries, trust in Africa. There is an
20 article on, you know, can Africa flourish like Asia
21 in the last Sunday Times, and the last three
22 paragraphs were as a little joke. The African
23 official was visiting his Asian friend and admiring

1 the lavish lifestyle and said, "How do you do it?"

2 And the Asian referred to the cut. "See
3 the highway out there? Fifteen percent."

4 And so then the Asian visited the
5 African official in his home, again the lavish
6 lifestyle. "How do you do it?"

7 "See the highway outside the door?"

8 The Asian official looked in vain, and
9 the African said, "A hundred percent."

10 And the level of corruption is
11 important, and you know, unfortunately you take
12 surveys of business officials, as people do, and the
13 U.S. and Japan are about on a par in the middle in
14 terms of as we like to say transparency as a
15 euphemism for the inverse of corruption, which is
16 sort of the idea of, well, why should I voluntarily
17 accept a decision if I think the decision was made
18 in return for 20,000 or 50,000 or whatever the
19 current price is.

20 And in private businesses, you know, you
21 can say Machiavellian, and you expect them to profit
22 maximize, but you know, sort of Adam Smith's genius
23 was showing that in general, where you have private

1 goods and a few other conditions, self-interest
2 leads to the public good.

3 So there is a sense in which it's a lot
4 easier to trust the decisions of private individuals
5 that they're maximizing in their business and,
6 therefore, they're treating you fairly than it is to
7 trust that this government official is maximizing
8 his personal take and, therefore, he's making a wise
9 decision.

10 There is a difference in ownership. So
11 maybe that is a basis for a difference in private
12 and public trust in private and public institutions,
13 regardless of even if you think the motivations of
14 the officials are similar.

15 MR. GARBER: Let's see. I've got Bob,
16 then Paul, then Lynne.

17 MR. BIES: I want to respond to Nancy's
18 question and say a couple of things.

19 I think part of your question is
20 answered by what Tom said about the predictability
21 expectation and, you know, to be reliable, but also
22 more important, the enormity of peace which
23 distinguishes trust from confidence.

1 Confidence you can get it done versus
2 trust that you will get it done. Take care of my
3 interests. Look out for me. There's this sort of
4 moral expectations, and I think that's part of any
5 transaction that comes in, that you'll do no harm to
6 me. You'll have my best interest at heart.

7 I think that's part of the thing that
8 makes it very fascinating when that gets violated.
9 Some of the work that Tom and I have done on the
10 revenge stuff says that people really sensitive to
11 exchanges, and when the trust is violated, it sort
12 of comes in two categories.

13 One is there's this sense of a damaged
14 civic order in the sense that there's rules and
15 procedures about how a system ought to operate.
16 When those are violated, we get angry, but also in
17 that sort of civic order, there's a sort of honor, a
18 code of honor, how you should behave vis-a-vis other
19 people, and if you lie, you cheat, you know, betray
20 confidences, we get really upset with that because
21 that's that sort of normative stuff that's
22 independent of just you've got a performance
23 failure.

1 But the other part that we find that
2 people get upset about is that when they feel that
3 their reputation or who they are is misrepresented,
4 and that's going to be an important issue for the
5 infrastructure. Whatever is encoded or shared
6 across things is not an accurate representation of
7 who I am. Where do I go back? What economic
8 calculus can I get that will restore my reputation,
9 particularly in a world that says we're going to
10 start putting clamps on punitive damages for those
11 sorts of things? I mean, where do I go? How do I
12 get it back?

13 So those sort of issues about the civil
14 order and social identity are important, but one of
15 the things that was striking to me and, I think, is
16 important for the infrastructure was if you believe
17 that the violators are not punished, you cease to
18 have any confidence either morally or performance-
19 wise that the system can operate. You become that
20 Third World corrupt or a lot like Washington, D.C.
21 You have that sort of -- I mean, Washington, D.C.,
22 is a Third World country in terms of its operation.
23 You no longer trust them.

1 MR. DARBY: You mean the city
2 government.

3 MR. BIES: The city government, right.
4 Well, actually --

5 (Laughter.)

6 MR. BIES: We can generalize.

7 But the notion of punishment, and I
8 think the punishment issue is important because we
9 too often think of punishment in terms of
10 deterrence, punishment to correct these bad people,
11 but what we miss is the importance that when you
12 punish, you are also signaling that the norms and
13 values governing the system are important.

14 There is an expressive we are upholding
15 the values. Yeah, we might deter somebody, put them
16 in jail, and they'll correct and rehabilitate, but
17 there's this other piece that we too often -- so if
18 you only characterize the debate in terms of
19 deterrence and rehabilitation, you're missing a very
20 important point of how people experience it.

21 So you have to punish some people to
22 remind people that the system still is -- because if
23 you don't, the community, the morality, it breaks

1 down.

2 MS. WONG: So you're saying that just to
3 make the distinction as confidence is not -- doesn't
4 elicit as -- loss of public confidence doesn't
5 elicit as strong a reaction from the public --

6 MR. BIES: Right.

7 MS. WONG: -- as loss of trust.

8 MR. BIES: Right. That's what our data
9 says, that when -- it's performance. You may be
10 frustrated and angry in the short term, but it's
11 those lingering, deeper resentments, is the
12 violation of trust.

13 I mean those can be more intense, and
14 richer, and can lead you to sort of paranoid and set
15 in how I got screwed and that sort of thing. It's
16 that trust piece that really generates the strong
17 negative.

18 MS. WONG: And then the consequences to
19 the public good in terms of if you don't trust, then
20 certain things don't happen versus if you don't have
21 public confidence, there's still recovery time. I
22 mean, there is -- it's easier to recover from.

23 MR. BIES: Yeah. You can recover on the

1 confidence piece, yeah. That would be -- yeah.

2 MS. WONG: And so really trust is the
3 foundation block here.

4 MR. BIES: Yeah.

5 MR. GARBER: Roy.

6 MR. LEWICKI: A quick point on that.
7 For me it's not do I worry about whether TWA-800
8 blew up because of an issue in the -- or Value Jet,
9 when it blew up, why it blew up, but their failure
10 or unwillingness to put in smoke detectors for me is
11 as critical, is much more critical to my long-term
12 trust of that. It built off the resentment. It's
13 not why it blew it. It's also will they do anything
14 to try to fix or remedy that and do something to
15 change my perception, and their unwillingness to do
16 that really undercuts my long-term trust of that
17 environment, that context.

18 MR. BIES: Can I just -- I just have
19 this one, and I apologize, but to what Michael was
20 saying.

21 The public/private authorities, private
22 decision makers because they're motivated by self-
23 interest, maximizing the value, all that sort of

1 stuff that we write about; we allow them to be
2 greedy, but when we really get upset is exploitation
3 and pigging out.

4 If we believe they're taking advantage
5 of their situation, then we get really angry, but we
6 don't mind people making lots of money. So there is
7 a normative dimension, and we allow you to be more
8 self-interested than maybe public officials are, but
9 it's when we perceive you're pigging out, there's a
10 dimension out there that we say, "Oh, that's just
11 too much, you know."

12 So I think if we just think about those
13 terms also, even in the private sector. I think the
14 procedures, the norms, the values still are
15 important.

16 MS. WONG: Yeah, I'm curious about how
17 that translates into consequence, say, for the
18 private sector or for the government.

19 MR. BIES: Well, it has consequences
20 that a consumer has choices. If I don't have
21 choice, if I can't exit, then probably I'll just do
22 -- maybe I'll put pressure on government to invoke a
23 third party. That becomes a pressure. That becomes

1 a pressure, and maybe if the media runs a couple of
2 good news stories that are half true, you know, then
3 maybe that'll increase the pressure. Maybe someone
4 will put something on the Internet.

5 So you have those sort of social
6 collective movements to make something happen, but
7 if there's market choices, then I can exit.

8 MS. WONG: Well, then that really just
9 rang a bell because what happens is if you're anger
10 is so high, you start looking for those choices
11 where choices were not there before.

12 MR. BIES: Right.

13 MS. WONG: In fact, you will drive
14 somebody to create choices or the marketplace will
15 create choices because now there's a demand where
16 there was not a demand before.

17 MR. BIES: Yeah.

18 MS. WONG: That's a very important point
19 for private industry. Right now utility companies
20 in the electric industries are understanding that
21 fact.

22 MR. GARBER: Paul?

23 MR. KLEINDORFER: Well, I wanted to

1 build on something that Dan raised, and the issue is
2 what is -- he provided, I think, a very helpful
3 comment about keeping the number of disappointments
4 low or trust in some ways is reflected over time as
5 a low incidence of disappointments.

6 If someone gets into that a little bit
7 and starts thinking about what gives rise to those
8 disappointments, then the particular point that I
9 would like to raise both on the choice issue, but
10 the public/private debate that we've raised, is the
11 issue of responsibility and self-reliance.

12 I'm very heavy on this particular matter
13 as an economist when there are choices. It's an
14 extremely important matter, but frequently it's
15 misjudged. So if you go through and you see that
16 people have a particular expectation about what they
17 expect their infrastructure or some other
18 institution to do, what gives rise to their
19 mistrust, growing mistrust, is a disappointment
20 triggered by an expectation that's not met.

21 And you start examining why that
22 expectation was not met, and you see two or three
23 different things that have been a part of the

1 discussion here. One is that they have the wrong
2 idea, as it turns out, about how much responsibility
3 they should have themselves as consumers or
4 citizens. So they expected the government
5 to do it all. The government didn't do it all.
6 They're disappointed, right?

7 Another is that they believe that the
8 decision was arbitrary or capricious or violated
9 fundamental rules of fairness, the issues that Bob
10 was just raising, and there you can have two
11 different kinds of fairness that a number of people
12 here much more expert than I am at this, but
13 procedural. Somehow or other this thing was just
14 drawn out of the hat and it disadvantaged me or I
15 just didn't like the way the process worked, our
16 outcome fairness. I mean, I see somebody making,
17 you know, \$100 million in bonuses for a particular
18 year. I don't give a damn where they come from.
19 Nobody, no human being ought to get that much money,
20 as it were, in one year, you know, for whatever
21 reason.

22 Now, I'll just mention two examples of
23 this just to hone in on this very briefly. One is

1 the U.K. deregulation experience, both telecom. and
2 electric power, water, and other areas. I've worked
3 very extensively with them, and I can tell you that
4 this has worked very well from an economist point of
5 view. If you look at total benefits generated, they
6 have been very significant.

7 It just turns out that most of the early
8 benefits went to the industrial firms that were
9 associated with this, and very foolishly, in spite
10 of my good advice to hide the money, these people
11 actually lavishly spent it on their directors'
12 salaries and so on.

13 This gave rise to very significant
14 repercussions in the last round, the last two years
15 of adjustments in the regulatory side of price caps
16 and other issues. Just think of those as very
17 strong repercussions.

18 It also arguably gave rise to Mr.
19 Blair's recent stunning success. It wasn't that he
20 was successful, was not so stunning, but how
21 successful and where. That was interesting.

22 So that's an example of where people
23 have a number of disappointments in this particular

1 case based on what they viewed as distributional
2 unfairness of something that they had reason to
3 believe. It worked very well, I can tell you, as an
4 economist. This worked wonderfully well. It just
5 did not stay within the bounds that people were
6 expecting with respect to distributional equity and
7 fairness.

8 And as a second issue on the risk
9 management side on responsibility, we have seen and
10 tracked through the National Hurricane Center
11 various earthquake areas and so forth. We've seen
12 both counties drinking from the inexhaustible soup
13 bowls of FEMA and private individuals drinking from
14 subsidized, if you will, insurance rates.

15 We've seen them locate time and again in
16 harm's way. In fact, it's along the lines you can
17 take pictures of, you know, portions of South
18 Carolina or the Florida coast, and you see, you
19 know, \$150,000 on average homes, and five years
20 later it's \$500,000 on average homes, and then five
21 years later, you know, after Andrew, it's \$1 million
22 on average homes.

23 Well, where are they getting the money?

1 Well, it's just leveraging on up out of subsidized
2 insurance payments obviously.

3 This is manifestly unfair from the point
4 of view of consumers, let's say, in north Florida or
5 elsewhere who are actually paying these areas. From
6 the businesses involved it's manifestly unfair, and
7 when it comes to light, this will also -- when it
8 comes to light, if it comes to light, I perhaps
9 should say -- it will also be viewed as manifestly
10 unfair because here we are seeing people who are
11 acting in an unprincipled way, violating fundamental
12 principles of fairness and integrity.

13 Now, those two stories though indicate
14 that between all of these drinks from the cup, you
15 know, there are lots of different ways in which
16 people get information about whether they're going
17 to be disappointed or not and whether their
18 anticipatory set, psychologically speaking, is going
19 to be satisfied or not.

20 But I really like this number of
21 disappointments. Where do they come from? If you
22 start to explore that, you get into, I think, some
23 of the issues there.

1 MR. DARBY: A two-handed follow-up to
2 that point. I used to have until it was stolen from
3 the office at the Treasury a statue of Calvin
4 Coolidge --

5 (Laughter.)

6 MR. DARBY: -- because as an economist I
7 greatly admired him as the last President to veto a
8 flood relief bill on the grounds that it would
9 encourage people to move into the flood plain.

10 So while I tend to agree with you
11 professionally, I also have to note that he was the
12 last President to do that.

13 MR. KLEINDORFER: He had certain other
14 characteristics.

15 MR. DARBY: But, you know, we're from
16 California. We've just passed a law sort of so that
17 FEMA will have to bear it all, nearly all of our
18 losses come the next earthquake. You know, where
19 are the rest of you outraged taxpayers?

20 MR. KLEINDORFER: Wait till it happens,
21 right?

22 MS. ZUCKER: Then it would be too late,
23 unfortunately.

1 MR. GARBER: Lynne, you may continue.

2 MS. ZUCKER: Okay. I have three points
3 to make based on a bunch of the discussion that's
4 gone on.

5 First of all is that it's not really
6 just a contrast between either having a competitive
7 system where you have choices, so therefore you
8 don't have to worry really about repairing trust;
9 you just switch to another provider, and there's
10 kind of a competitive system, and on the other hand,
11 government.

12 Another way of repairing trust that I
13 think we should note is providing better
14 information, usually buying better information. So
15 one consequence of the banking crisis was the
16 development of a number of businesses that provided
17 detailed information on the financial soundness of
18 particular banks.

19 So before, where we took it for granted
20 that, you know, most of these banks would do fairly
21 well, people who really need to depend on a bank
22 coming through now buy information from these rating
23 services.

1 MR. KLEINDORFER: The same is true with
2 insurance.

3 MS. ZUCKER: Right. So, I mean, you can
4 look at this in two ways. One, it's a failure of
5 the system, and so therefore, you have to shore it
6 up, and the other is it's more jobs, and you know,
7 since we seem to always glorify that, hey, you know,
8 you're employing a lot of people that weren't
9 employed.

10 So the second point is that I want to be
11 very careful about these global assessments of
12 public confidence and trust, either one, and as an
13 example, I want to look at schools and, you know,
14 public evaluation of schools.

15 And what's really interesting, although
16 the general overall public evaluation is not
17 necessarily that strong and in some cases has been
18 declining, parents universally rate the school their
19 child they're going to very, very high and the
20 teachers very high and, you know, very supportive.
21 So there's a large literature in sociology of
22 education which looks at these rates, and at least
23 John Meyer, who is a sociologist, marvels at how

1 they can possibly be that high given how poor we say
2 schools are. Okay?

3 So is it really performance? And if so,
4 in what dimension? I think we need to be
5 extraordinarily careful because maybe it's keeping
6 the kids happy, having them in a good, supportive
7 environment, you know.

8 I'm not quite sure, and I haven't looked
9 into this at all, but in not the actual specifics of
10 the training.

11 Another way we might look at our
12 assessment of failure of schools is it's kind of a
13 muck-raking opportunity. So, in fact, it's been
14 greatly overwritten, and I'm inclined to think
15 that's true, but IQ plays such a big role, and we
16 don't really want to admit that for a number of
17 reasons. So instead we'd rather blame the schools.

18 And the reason I feel so strongly that
19 way is the discontinuity in the U.S. system. If you
20 compare Japan and the U.S. in terms of their
21 educational system, we always say, well, Japan has
22 this absolutely superb educational system, and the
23 U.S. is a failure, but what is actually factually

1 correct is that their education through high school
2 is extremely rigorous.

3 Now, I don't know how parents rate it.
4 I would love to know because it's not particularly
5 supportive, and they need the cram schools and all
6 of that. So it may not get rated very high.

7 In the U.S., our high school and below
8 is judged a failure, and yet our university systems
9 out-compete every time. There's no university
10 system in Japan that competes with our best
11 university systems in the U.S.

12 Well, how can we have that
13 discontinuity? What happened? Where are all of
14 those uneducated kids suddenly getting the ability
15 to out-compete these Japanese kids that have been
16 trained so well?

17 Well, it just doesn't fit. So something
18 else is going on.

19 That brings me to my third point, which
20 is that I'm a little uneasy with the distinction
21 between public confidence and trust. I don't quite
22 know what that distinction is, and I'm not sure the
23 way we measure them in these surveys is really

1 something that makes me trust the results or have
2 confidence in the results.

3 And I think that we need to think about
4 what the anchor is to the judgment. You know, for
5 most of these judgments, I mean, I can go ahead and
6 rank. I can go ahead and rank this university.
7 We're sitting right here in the library, you know.
8 What is my level of confidence in this university?

9 And I would come up with some -- you
10 know, I could check off on a scale, but it would
11 have almost no meaning because I don't know very
12 much about this university. You know, I was
13 commenting this is the first time I've ever been on
14 the campus. You know, it's kind of a neat place to
15 be, but you know, I really don't know very much.

16 And so I think a lot of the ratings are
17 really made with almost no information about what
18 you're rating. You have some kind of global effect.

19 I don't trust the ratings particularly
20 of people for that same reason because, you know,
21 how much are people really reading? What do they
22 know? What evidence are they using?

23 And I think that one aspect is, for

1 example, how much do you depend on that institution
2 or that person, and once you ask that question and
3 then you get those people that are heavily dependent
4 on it to actually rate it, they have a big stake in
5 gaining enough information.

6 Michael and I have written quite a bit
7 on costly information and the fact that you really
8 have to have a reason to want to get it be able to
9 want to spend the resources acquiring it. So, you
10 know, if you want to ask the questions, we really
11 have to think about who they should be asked to.

12 The general social survey, which we were
13 quoting on the banking issues, you know, it's good
14 in terms of kind of general, how do you build
15 confidence back up in the general public, but that's
16 a very different question from, well, what about
17 other banks, banks that are dealing with other
18 banks, for example. They're not going to be swayed
19 by these public polls.

20 So I think that that's extremely
21 important. The normative component which a number
22 of people have also brought out really relates to
23 this because, to the extent the survey you're

1 proposing is going to be done just in this country,
2 you're missing an awful lot of what would be
3 different across countries because there's a big
4 component to fairness, decisions about what's fair
5 in different normative systems.

6 Just to give a quick example, in a
7 recent comparison of how much people in different
8 societies thought it was equitable to pay very high
9 occupations compare to very low, like one times
10 equal to, one times as much, two times as much,
11 three times as much. What was found was there were
12 huge differences in what different -- societies
13 almost always agreed about what was right for the
14 low level, but not the degree to which the two
15 levels should be separated.

16 Poland and Hungary -- Poland was the
17 lowest in terms of thinking that salaries should be
18 almost equal. Hungary was next to that, and I can't
19 remember what the top ones were. U.S. was not the
20 top, and Australia and so on were in there.

21 So there was an enormous range of
22 response to that question. So I wanted to raise
23 that issue, too, because since this is just within

1 the country, a lot of the basic issues of legitimacy
2 are really going to be missed since the legitimacy
3 will vary much more between countries.

4 CHAIR CULNAN: I want to sort of toss
5 something out and hopefully people can, given we've
6 got a lot of expertise on this, weave this into some
7 of the comments that come later, but about the role
8 of procedural fairness, especially transparency and
9 voice in influencing people's views about
10 infrastructures and how this affects the elasticity
11 of either their confidence or their trust, whichever
12 you want to call it.

13 For example, you know, a lot of the
14 research says if procedures are fair, people are
15 more tolerant of negative outcomes because, you
16 know, this happened, but basically I understand the
17 system, and how do you apply this to
18 infrastructures? Is it press releases? Is it
19 newsletters? Is it the media? Do they play a role
20 in this? Citizen boards? I mean, how do you
21 incorporate this in a non-sort of workplace
22 situation?

23 And there's one paper that's in the blue

1 folder. It's not in the spiral bound, that suggests
2 that, in fact this will apply. It's a paper by Paul
3 Slovic, and he did a study in the nuclear power
4 industry and the one thing that was the most trust
5 increasing when you fed people a lot of different
6 scenarios was that there was a local board that had
7 the finger on the button, you know, that could
8 basically shut the plant down if it wasn't safe.

9 And you see what percolates up out of
10 his research is, you know, it's fairness; it's
11 trust; it's, you know, transparency, voice, all of
12 that kind of stuff. So I would be interested in
13 hearing what people have to say about that, and
14 especially, you know, can you have too much
15 transparency.

16 You know, there are stories about
17 hackers attempting to break into something. Does
18 that, in fact, then reduce trust when it was an
19 unsuccessful attempt versus you tell people
20 something happens and you lose your customers? You
21 have choices, et cetera.

22 Yeah, Paul.

23 MR. KLEINDORFER: Just a brief comment

1 on this issue in the public utility area. We've
2 seen for years that procedural fairness is extremely
3 important. It's been instituted in a number of ways
4 with public advocates and so forth both with respect
5 to reliability complaints and the other issues.

6 In a competitive market, the entire move
7 to guarantee, service guarantees and so forth that
8 we've seen over the past five years. Ways of
9 adjudicating paying and so forth for any perceived
10 disappointment that you might have has become an
11 extremely important part of business, of customer
12 call service. Perhaps the largest growth area in
13 the service sector in recent times has been in
14 customer call centers, customer service issues, and
15 so forth.

16 So procedural fairness is an extremely
17 important element of that. Now, the critical issue
18 in public utility sides though, whether in
19 telephone, gas, water, whatever, is this business of
20 getting the expectations correct in the first place,
21 and so there is where, especially with respect to,
22 let's say, very rare events, low probability, high
23 consequence events, whether it's anticipated nuclear

1 power difficulties or whether it's power outages or
2 what; it's to get clear what would a prudent,
3 reasonably principled person of integrity guiding
4 such-and-such an institution, what should they do?
5 And can we have that discussion before the fact?

6 Now, there is where citizen
7 participation, if you can get them to do it, is
8 very, very useful in legitimating that this has gone
9 through that process, but the history of public
10 utilities and elsewhere has been extremely
11 difficult, especially in low probability and high
12 consequence events to get a reasonable cross-section
13 of the community actually involved in that kind of
14 discussion.

15 After the fact, you can get them
16 involved, but that's no long any good if you wanted
17 to legitimate that you have been reasonable,
18 prudent, fair, principled, and so forth, before the
19 fact, you see.

20 So I'll just say that the history in the
21 public utilities area and all the things you come
22 across if you've ever got any testimony in any of
23 the commissions up here, you know, the Postal Rate

1 Commission or others, procedural fairness is the
2 foundation of what goes on, but it's really
3 balancing the ex post and the ex ante that turns out
4 to be very difficult, and especially in those areas
5 that we're talking about here, critical
6 infrastructure vulnerabilities in which the very
7 vulnerability you see is something that people don't
8 necessarily want to get involved in spending, let's
9 say, two years of their life going down and saying,
10 "Yes, we as a community believe that you will do X."

11 It's very difficult to get them involved
12 before the fact.

13 MR. GARBER: Doris?

14 MS. GRABER: I want to talk about what
15 I consider one of the more spectacular drops in the
16 confidence as an example, and that is in the medical
17 field. You used to trust your doctor, and now very
18 widely people have lost trust in the doctor and the
19 health system, with or without justification.

20 And as I see it, one I think is the
21 thing that was brought out before, which is sort of
22 the sense that the profits are too high, that people
23 are just in it for the money. I think that's sort

1 of a big thing in a lot of these things, where you
2 expected them to be interested in rendering you a
3 service, and now they're just interested in the
4 money.

5 The second thing I see in this, and I
6 think it's been pervasive in many fields, and that
7 is there in between this basic decision maker and
8 the client, you've introduced a whole bunch of
9 intervening institutions, in this case the HMOs and
10 the insurance companies, et cetera, and to address
11 Mary's concerns, I mean, first of all, the rules and
12 regulations, the understanding of the procedures is
13 very difficult for the average person. If you don't
14 understand the procedures, you cannot judge the
15 justification of the procedures.

16 On the other hand, I think even where
17 the justifications for the procedures are clear,
18 when people are terribly much involved in it as they
19 are in something like the medical field, where it's
20 your life or death, procedural fairness is not going
21 to cut it. It's got to be what seems like outcome
22 fairness.

23 So while I think that in many things in

1 which you're less involved, procedural fairness is
2 very important as a criterion that your things are
3 done in the right way by which one judges whether or
4 not one should trust.

5 When it really cuts to the core of your
6 very personal experiences, even that will not do
7 even when the procedural fairness is there.

8 MR. TYLER: If I could just make a quick
9 comment, actually what's interesting is that there
10 have been studies in this area that suggest that
11 procedural fairness works really well. For example,
12 if you're asking the question when a patient sue
13 their doctor, it turns out that the extent of their
14 injury or even the degree of bad practice or
15 malpractice or whatever is not the issue. It's
16 their judgment of how they're treated by their
17 doctor.

18 If their doctor treats them with
19 respect, listens to them, seems to be or is actually
20 concerned about trying to deal with this issue,
21 people don't sue.

22 Similarly, research on when do employees
23 sue companies that fire them, it's really whether

1 the company seems to be following a procedure that
2 they see is fair. If they think the procedure is
3 fair and they're fired, they don't sue.

4 So I think that there is a lot of
5 suggestion that procedural justice has legs. I mean
6 it can be robust in situations where there's a lot
7 at stake and where there are real issues that are
8 important.

9 The trick is -- and I think your
10 comment, Mary, brought this out -- the issue of
11 legitimacy. When you take something like the oil
12 companies, which is a constant problem in
13 California, well, people don't believe in the oil
14 companies anyway. They're not legitimate; they're
15 not respected; they're not believed.

16 So when they enact procedures, right
17 away there's a problem, and it's the same interplay
18 that we see in government. If people think the
19 institution is legitimate, they're more willing to
20 defer to its procedure. They're more willing to
21 believe the procedure is fair, which, again,
22 reinforces legitimacy, but if legitimacy is low,
23 procedures are suspect. Fair procedure doesn't have

1 as much of an effect.

2 So what institutions need to do is they
3 need to build their basic legitimacy, and as that
4 builds, then the power of procedural mechanisms will
5 go up.

6 MR. GARBER: Joe.

7 MR. MOORCONES: I wanted to go back to
8 infrastructures for just a moment because I've been
9 listening, and it seems the thing that destroys
10 trust and confidence is failures. Okay? And
11 without failures, trust and confidence may -- given
12 that it somehow got established, and my question
13 would be do we have to wait to have an
14 infrastructure failure before we're going to do
15 something about it or if something needs to get
16 done, or are there examples that you've seen where,
17 by looking at, observing the institution or the
18 infrastructures, the behaviors, the procedures, the
19 investments, the practices have resulted in public
20 confidence waning in that without a failure?

21 An example I might give, I think the
22 number of failures were talked about. Yet everyone
23 said computer failures are acceptable. Hard disk

1 crashes, whatever, all the time, yet all of our
2 infrastructures are becoming more and more dependent
3 on these computers.

4 Another comment was, well, you have
5 choices. So maybe choices come in to give you
6 resiliency, but in many cases in computers and
7 communication, your choices are between different
8 marketing agents, not fundamental infrastructure
9 differences.

10 So my question is: are there examples
11 or have you seen examples where the procedures, the
12 way an industry, institution has gone has led the
13 public to say, "I'm losing my trust for certain in
14 this," as opposed to waiting until there were actual
15 failures where they were impacted directly?

16 If I did okay with that question.

17 MR. KLEINDORFER: One can mention a
18 number of reasons for the erosion of trust in
19 business leaders, and that has to do I think less
20 with failures and more with what is believed to be
21 distributional or scandalously out of line profits
22 or salaries or whatever.

23 So you could say that if you were

1 looking at that driver of mistrust, but let's say we
2 were looking at something that had to do with the
3 vulnerability of a system that would actually affect
4 you, you know, other than, let's say, the character
5 or the profit taking ability of the CEO. There
6 there are what people look at when they look at,
7 let's say, any business enterprise, but certainly in
8 the utility industry. They would look at a number
9 of characteristics that indicate whether this
10 industry seems to be concerned about prudent
11 engineering principles, about systems integrity, and
12 so forth.

13 And you see this begin to permeate both
14 through the press, public advocate, and other areas.

15 It begins to take on a notion of its own, so that
16 even a failure that isn't in this particular system
17 you're looking at -- suppose I'm looking at the East
18 or Northeast or something, and there's a failure in
19 Indonesia or something like this or, you know, a
20 tanker runs aground that is licensed under the
21 Liberian flag or something. Even those remote
22 failures that appear to have nothing to do with this
23 system, when coupled with other driving factors that

1 undermine confidence, if you will, in the leadership
2 of a company have had very deleterious effects.

3 You can see it immediately in the
4 hearings that follow in these areas, and so there
5 are areas, but usually what you would see is some
6 correlates, something that suggests that the people
7 involved in the enterprise or institution you're
8 looking at are not being prudent, are not acting in
9 a way that somehow it reflects what people in your
10 view ostensibly act.

11 Then another triggering event, socially
12 amplified, comes to roost, and that's what
13 eventually ends up being the trigger. I think you
14 need a trigger, but it doesn't have to be in the
15 area itself.

16 MR. GARBER: Is there any other direct
17 follow-up here?

18 MR. LEWICKI: Please. Yeah, I did a
19 number of informal interviews before coming here to
20 talk to people about what affected them and their
21 ability to trust infrastructure, and I think it
22 builds on what points we were just raising.

23 They said three things to me:

1 reliability, accessibility, and voice, and
2 reliability was that it performs as I expect it to
3 perform, which is back to the expectations issue. I
4 have expectations, and it does as I expected, and a
5 lot of that was a management related problem. Do I
6 see these people as competent in running this
7 operation and providing it to me?

8 Accessibility goes back to the
9 procedural question, and it's interesting. I was
10 surprised how many people said I trust that not only
11 they provide it to me, but that they provide it to
12 everyone; that it wasn't just me who could benefit
13 from it because I could pay the bills, but I trust
14 it because it's provided broadly. It's
15 encompassing. Anyone who is qualified can get
16 access to it, and they saw it very much as a justice
17 issue, as a fairness question.

18 And the third was sort of like voice
19 appeal. If it doesn't work, I can get it fixed. I
20 have an opportunity to talk to someone who is going
21 to be responsive to my concerns, and that they will
22 fulfill their commitment.

23 And I think those are three things that

1 management very heavily can control and influence.
2 To the extent that I see the management of an
3 infrastructure worried about those issues, I'm much
4 more likely to increase my trust of that operation
5 and what it provides than if it doesn't.

6 So that management controls a lot of the
7 procedural dynamics that we can provide them in this
8 service.

9 I also want to just briefly tag
10 something you said, Lynne, and I can't remember
11 exactly how you were phrasing it or talking about
12 it, but I said to Rod that there are conditions
13 under which you trust because you have no choice,
14 and trust is almost a dissonance reduction
15 mechanism.

16 I'm in a situation where I have no
17 choice. I have no options. I don't know whether I
18 should trust or not, but I trust because I almost
19 have to trust and to not trust is to create more
20 problems for myself than I can handle, and this is a
21 slant on trust I've never heard anybody sort of
22 argue before. It's like we talk about trust as very
23 rational, calculative, weighing cost and benefit,

1 shaping expectations, and so forth.

2 But we assume that there's choice
3 available to us. In no choice situations around
4 infrastructure, I almost have to choose because I
5 don't know where my options would be or how I would
6 make different choices or whatever, and that strikes
7 me as a different dynamic. I'd like to unpack that.

8 MS. ZUCKER: If I can just add to that,
9 I think that you're right, that it can lead to
10 trusting. Otherwise you really wouldn't because of
11 the dissonance, but I think it also can lead to
12 complete disaffection and kind of dropping out.

13 Certainly we see that in some of the
14 African countries, for example. So, you know, you
15 can't do anything about it. You only have one place
16 to go. So you just don't do anything.

17 MR. LEWICKI: Right, and I'd love to
18 come back to that when we talk about media issues
19 because I see media as specializing in distrust, in
20 other words, that the story is not in the trust.
21 The story is in the distrust, and I'm left with
22 increasing information about how the system isn't as
23 good as I want it to be, and I have no idea what I

1 do with that in terms of my responses. Now how am I
2 supposed to feel?

3 I thought I trusted Fidelity, and now
4 they have a cover story in Fortune this week about
5 is Fidelity coming back or going down the tubes, and
6 that's where my funds are, right. So I mean, what
7 do I do about that, you know, and how do I respond
8 to that?

9 MR. KLEINDORFER: Religion is important
10 here.

11 MR. LEWICKI: You're right. I'm married
12 to a theologian which helps me a lot. That's when I
13 go to her for advice.

14 MS. GRABER: The big historical issue,
15 why did we, in the period before World War II, keep
16 on trusting Hitler when he said, "This is the last
17 country that I'm going to invade"?

18 We just had no choice. What are you
19 going to do?

20 MR. KRAMER: What's a failure is highly
21 subjective, and of course, it can be framed real
22 easily, and one of the things that worries me is the
23 difference between private and public agencies in

1 terms of what's a failure.

2 We have a lot higher expectations for
3 public agencies and agents than we do for private
4 agencies, and so while it might take a ship running
5 aground or some sort of really disastrous event for
6 us to make us question our trust in a private
7 agency, it can be much smaller that makes us
8 question our trust in a public agency, and I think
9 part of that is they're just sort of held to higher
10 standards. They're held to more values.

11 Michael was talking earlier about sort
12 of private versus public in terms of, well, we
13 expect private firms to be self-interested, but we
14 expect public agents to act as agents and not just
15 be self-interested. So they're held to higher
16 standards, and we've set up a lot of procedures in
17 government to try and help insure that.

18 And one of the things I think about when
19 I think about procedural justice is that the more
20 procedures that are in place, also the more
21 procedures there are for somebody to trip over and
22 for the media to catch it.

23 And so what happens then is when the

1 media starts reporting this, you know, the average
2 TV watcher or newspaper reader sort of samples the
3 events that are going on. It's a lot higher in the
4 public than it is in the private, and so it seems
5 that whatever solutions you've got through a public
6 agency, it's going to be a lot harder because people
7 are going to be much more likely to perceive
8 failures, and the press is going to assist that.

9 MR. GARBER: Bob.

10 MR. BIES: Actually let me defer to Rod.
11 Then I'll follow Rod. So I'll defer to my
12 colleague.

13 MR. KRAMER: Bob, you have the floor.

14 MR. GARBER: You all work this out.

15 (Laughter.)

16 CHAIR CULNAN: This is holding up lunch.

17 MR. BIES: I think another way of
18 thinking about the failure piece is really we're
19 talking about the management of bad news. You're
20 anticipating bad news to occur, and one of the
21 things I find from my research on bad news is that
22 there's really three phases to the delivery of bad
23 news.

1 There is a phase of preparation where
2 you sort of get people ready for the possibility,
3 and that goes to some of the stuff you're talking
4 about, Paul, you know, inoculating people, giving
5 them knowledge, or in the procedural justice sense
6 giving advanced warning notification, which we find
7 the layoff literature to be very important in how
8 people react to layoffs.

9 And then there's the actual delivery
10 phase, how you actually communicate it, and we often
11 focus in on that. In a procedural justice sense, do
12 I give a justification? Do I treat them with
13 respect and dignity?

14 In the layoff research that I've done
15 with other colleagues, people are really sensitive
16 to how it was delivered, when it was delivered.
17 It's the whole salt on the wound. Yeah, they're
18 upset they're losing their trust. Trust me, but
19 what they remember is how they were handled or
20 treated.

21 So there are those sort of issues, and
22 then there's sort of a follow-up stage. What
23 happens after that? How do you manage it after the

1 fact?

2 Also, another procedural justice
3 principle I talk about, the privacy and
4 confidentiality. People are really sensitive to
5 that, particularly in these high information laden
6 infrastructure issues. Will that information
7 somehow expose me? Either if I'm a criminal I don't
8 want it exposed or if I'm just a human being, some
9 personal information about me is important.

10 The other one I want to add is maybe we
11 shouldn't talk so much about failures in terms of
12 zero defects because repeaters have problems, but
13 what we really ought to talk about if you're
14 managing it from a bad new perspective, it's
15 continuous improvement, rapid response.

16 We know that it's not perfect, but it's
17 better than what we were. So it's not good to talk
18 about computers as being perfect because they're
19 not. So the focus that we talk about, we're going
20 to be rapid response. It will occasionally be
21 technological failures we have no control over, but
22 judge us by not the technology, which we're always
23 searching for better technology, but how we respond

1 and whether we're improving, and that's what I
2 judge.

3 CHAIR CULNAN: Small wins.

4 MR. BIES: And that becomes a small win.

5 One last thing, Rod, to say with you.
6 It's not just enough to have the small wins, but
7 communicating the small wins. I mean that's one of
8 the things that politicians in this town discover.
9 It's not enough to do a lot of neat things behind
10 closed doors, but you've got to let people know.

11 PARTICIPANT: And the media does much
12 more with that.

13 MR. BIES: Yeah, and to tie that to the
14 media. Bad news sells. You don't see very many
15 stories about mail was delivered. The mail was
16 delivered on time today. There's no story to that.

17 CHAIR CULNAN: Oh, that is a story
18 though.

19 (Laughter.)

20 MR. BIES: In this town, anyway, but the
21 bad news sells. So we're looking for those sort of
22 exceptions.

23 MR. KRAMER: Actually I don't want to

1 hold people up for lunch.

2 MR. GARBER: No, no, you have time.

3 MR. KRAMER: But actually this comment
4 actually is in response to Joe's original question
5 about failure, but it actually, I think, responds
6 also to Tom and Bob's point about failure and the
7 perception of failure.

8 Lyndon Johnson had a very interesting
9 observation when he looked at public response to the
10 perceived failure of the Great Society, and he
11 thought, you know, it was so interesting that people
12 were so tolerant of slow learning and a lot of
13 failure in the race to the moon, a technological
14 failure; that that's what hard science is all about,
15 trial and error, but when it came to an experiment
16 in society, people had very little tolerance with
17 failure; that educational experiments were supposed
18 to work.

19 And I think that's very interesting to
20 think about in terms of trust and the erosion of
21 trust in infrastructures. Why is it that we're so
22 tolerant of failure and hit and miss and trial and
23 error in the hard sciences, but we're so hard on

1 ourselves when things fail in the social sciences,
2 as if it's a dramatic failure?

3 That's just a comment that struck me
4 about Lyndon Johnson that posed this dilemma, but
5 the more interesting thing, I think, in terms of
6 organizational theory, what it has to say about
7 response to failure, and that is that I think the
8 evidence from organizational research is that
9 institutional and organizational responses to events
10 that are perceived as setbacks or failures are
11 enormously consequential in terms of subsequent
12 trust in the organization, and a good example of
13 that, I think, is the success of Tylenol at managing
14 the public confidence in it as an institution. It
15 was actually relatively untarnished by its crisis,
16 in contrast to Exxon in response to its dismal
17 response to the oil spill in Alaska.

18 And there's a large literature that we
19 should turn to in terms of understanding why
20 organizations handle these things well or poorly in
21 terms of the loss of trust subsequently in them.

22 And then also in response to Joe's
23 point, I wanted to mention that there's an

1 interesting strategy that some corporations,
2 recognizing this evidence, have adopted an extra
3 strategy of building what they think of as trust
4 banks or reservoirs of trust, and McDonald's is a
5 good example.

6 McDonald's has taken a very proactive
7 strategy of building community trust by doing things
8 like these little child care place centers and all
9 of these things and advertising so that then when
10 they have even an uncontrollable or unexpected
11 catastrophe happen, such as the person who went in
12 and killed some people on a McDonald's site,
13 community will is not really lost or eroded because
14 they don't blame the institution because they've
15 built trust, and McDonald's has called that a trust
16 bank. I think it's a nice notion.

17 And then a third concept for the
18 organizational science is related to this, is the
19 need to sort of proactively experiment with small
20 losses and failures and set-backs, and that
21 organizations themselves can do this as a way of
22 finding out what happens when setbacks occur and
23 learning from those small, relatively low cost

1 losses.

2 And Jerry Salancik had a nice expression
3 for this. He called them field stimulations. We
4 ought to stimulate our organizations and see what
5 happens for small losses.

6 PARTICIPANT: Turn off the electric
7 power in the town.

8 MR. KRAMER: Right, for a few minutes
9 and see, and you learn a lot.

10 (Laughter.)

11 MR. KRAMER: Hopefully, hopefully.
12 Anyway, sorry for the length of those, but three
13 different observations.

14 MR. KLEINDORFER: Just a very small
15 comment. I found the list of what we believe are
16 appropriate trust, confidence and answers,
17 reliability, accessibility, voice very interesting.
18 Just to add what is floating around here as the
19 fourth, which is legitimacy of purpose, or
20 legitimacy of coherence.

21 To come back to your point, Joe, that's
22 what really -- when you nick away at that, when you
23 see somebody that's supposed to be running a bank

1 and doing some prudent things there and they're off
2 playing derivatives markets in a very irresponsible
3 fashion or when you see somebody that's supposed to
4 be doing, let's say, utilities and they're off
5 running information systems and software and doing a
6 number of things that also turn out to lose them
7 money, you know, and I could go through a number of
8 other companies, it's because their legitimacy and
9 their coherence of purpose is just not being viewed
10 as being in line. Their behavior is not in line
11 with that.

12 So I think absent that, one also sees,
13 just to add to this I think very helpful list of
14 what --

15 MR. LEWICKI: Is that in typewriting or
16 is that --

17 MR. KLEINDORFER: -- be disappointed.

18 MR. LEWICKI: Is that integrity? Is
19 that different from integrity?

20 MR. KLEINDORFER: I think it's
21 different. You see, I think integrity perhaps
22 contributes to legitimacy, but I put under
23 legitimacy of purpose that people looking at an

1 organization or institution say, "You know, those
2 guys, those folks over there, they're an electric
3 power company. They seem to be doing electric
4 power," but, you know, when they do what, you know,
5 NGC and National Grid Company and others have done,
6 which is they generate lots of cash and then they
7 start investing in all sorts of things that have got
8 nothing to do with their underlying competence, then
9 people say, "Why don't I have a little bit of that
10 in a bill reduction? What are those guys doing?"

11 And then you see no failures, but you
12 see an erosion of trust and confidence and all sorts
13 of repercussions that stem from this not being a
14 legitimate enterprise.

15 MR. GARBER: Ray.

16 MR. HIEBERT: I just want to get on the
17 agenda for after lunch.

18 MR. GARBER: You've got it.

19 CHAIR CULNAN: Put him first up.

20 (Laughter.)

21 MR. GARBER: All right. Well, in terms
22 of confidence, then I have some confidence that
23 there's food out in the hallway, and so we'll just

1 go and see if that's fulfilled or not.

2 So we're adjourned for at least 30
3 minutes, and we'll reassemble at one o'clock.

4 (Whereupon, at 12:32 p.m., the workshop
5 was recessed for lunch, to reconvene at 1:00 p.m.,
6 the same day.)

7

1 also because I think that plays into that, or if it
2 doesn't, we would like to know that, too.

3 Excuse me.

4 MR. GARBER: Yeah, sure.

5 And the last point and probably a key
6 question for the members of the Commission here, and
7 that is what should the role of government be in
8 maintaining public confidence in the critical
9 infrastructures.

10 And I will artificially move to that
11 question about, oh, 20 to 30 minutes before we are
12 going to wind up here because that's the critical
13 one as far as I think the Commission is concerned
14 that we would not want to leave unaddressed.

15 So perhaps we can move to the question
16 of how elastic or resilient is public confidence in
17 various infrastructures. Is there someone who might
18 do me the favor and whatnot of leading off on a
19 discussion of this?

20 CHAIR CULNAN: Or even what's the
21 endpoint? Does anybody even want to hazard a guess
22 of at what point do, you know, people defect if they
23 have choices or, you know, demand government action

1 if they don't have choices or whatever?

2 MR. GARBER: When do people holler
3 "uncle"?

4 CHAIR CULNAN: Yeah.

5 MS. ZUCKER: I was going to say I'm not
6 quite sure the question is phrased right. Maybe
7 that's the problem because I think it's like how big
8 a loss would it be -- say that you don't have
9 confidence in it. How much is it going to cost you?
10 Because that's going to have a lot to do with both
11 when you feel you lose confidence and how salient
12 that is to you.

13 So it's that same issue we were
14 addressing before about, well, how much is trust
15 worth. What are you willing to pay? You know, how
16 much is it worth to you, either time, money,
17 whatever, some resource?

18 MR. KLEINDORFER: If I were running, you
19 know, as a multi-dimensional logit study or
20 something, you know, based on the survey instrument,
21 then what I would try to do is to have some outcome
22 variables that would be levels of trust or
23 confidence, some predictor variables that would have

1 to do both with demographics as well as recent
2 experience, and perhaps some confounder variables
3 that might experience correlations across them.

4 Then I'd try to carefully determine on
5 the basis of appropriately placed risk questions
6 what were the determinants for those parts of the
7 population that did express a strong level of trust
8 or confidence in the government, in the
9 infrastructure that would be different, you know,
10 levels there. What was, in fact, driving that? For
11 those who didn't, what would drive that?

12 But I don't have any data. Does anybody
13 have any data already that they would say about
14 this? I agree with your comment, Lynne, that you'd
15 have to be a lot more specific about what you mean
16 by "elasticity."

17 I think of it in terms of what factors
18 actually drive people to have increased confidence
19 or lower confidence or whatever, but that may just
20 be my data driven aim to life.

21 MS. ZUCKER: I think no one has got it
22 down very closely, but what Michael was presenting
23 before about the banks, at least you've got some

1 evidence that, gee, the level changes over time, you
2 know. This is just very general. It's a public
3 random survey.

4 MR. GARBER: Doris.

5 MS. GRABER: I think from the standpoint
6 of the Commission and the country, in general, it's
7 important not so much when the individual loses
8 confidence, but when it becomes a mass phenomenon,
9 and I think in that it becomes a level of activity
10 or level of analysis problem in the sense if you
11 have, let's say, a local company or a local bank or
12 whatever, it's very word of mouth that spreads the
13 story that this company isn't trustworthy.

14 On the other hand, I think in terms of
15 the large-scale defections, if it's at the larger
16 level, like you take something like the Tylenol
17 situation, I think that is generally media driven.
18 When the driven come out and then you'll hold a
19 number of people and then that becomes reinforced by
20 interpersonal conversations, you know, that there's
21 something wrong with this particular product, and I
22 think this is where the media can do at times a
23 great deal of harm when they exaggerate what is

1 really wrong.

2 On the other hand, if they handle it
3 right, they can also do a good job in pointing out
4 that this is an isolated incident and it's not
5 likely to occur.

6 But sort of in terms of elasticity, if
7 it's just your own, you know, individual thing that
8 you have lost trust and you don't communicate that
9 to others, a lot of individual things can happen, an
10 when nobody finds out about it, it doesn't matter.

11 They tell a story about an attorney in
12 Chicago who got involved in malpractice and was all
13 over the major Chicago papers about, you know, what
14 he had done, and somebody asked him and said, you
15 know, "There must be two million readers here who've
16 read this. What are you going to do now in terms of
17 your practice?"

18 And he said, "Well, I'll practice for
19 the five million who didn't read the story."

20 (Laughter.)

21 MS. GRABER: So this is what I mean by
22 media driven. If the media get it all over and it
23 then moves on, and that takes a while for that to

1 happen, then I think you lose your resilience.

2 On the other hand, somebody else hears
3 the Tylenol example, and there it's been amazing to
4 me really how quickly Tylenol in the end did come
5 back, and the thing that I felt restored the
6 confidence so much, they somehow into their
7 advertising worked something that this is the pain
8 killer that hospitals use most, and so you got a
9 transference from the concept of hospital as a place
10 we trust to Tylenol after a while.

11 So I think the elasticity is both ways.

12 I mean, for a while sales really dropped like a
13 rock, but then they came up very fast, again. So it
14 can be quite buoyant.

15 MR. BIES: Just a quick follow-up to
16 that. As you think about elasticity, the socially
17 constructed reality is socially constructed in the
18 sense that it's just not the media giving one slant.

19 I mean I do a lot of work under the type of
20 explanations and accounts and excuses, just the
21 cases people give as part of the rapid response.

22 If your identity is attacked and you've
23 got bad news performance, I'm going to be out front

1 maybe hiring one of those high, fancy, information
2 public relations legal type firms.

3 (Laughter.)

4 PARTICIPANT: Who's he talking about?

5 MR. BIES: Yeah, yeah. Because that
6 sort of spin in terms of giving another -- and I
7 don't use "spin" in a negative sense -- I mean
8 giving an impression because there was often
9 uncertainty about what actually happened.

10 So the whole notion of rapid response to
11 attacks on identity is going to shape this debate,
12 too, and it's going to be back and forth.

13 So if the media comes out with a bad
14 story, I immediately respond with something. Okay?

15 So I think you have to look at how the managers of
16 the infrastructures are going to defend their own
17 identity, and that will affect the elasticity as
18 well.

19 MR. GARBER: I'm sorry. Was there
20 something? Yes, sir.

21 MR. DARBY: One thing that Tylenol did
22 right, first I'm sure they helped get across the
23 perception that, "Look, you know. Nobody before had

1 ever thought of capsules as having this danger. It
2 was an act of God, and look. Now our product will
3 be sold only in tablets and these sealed caplets.
4 We've come up with a technological innovation to do
5 it."

6 But they also handled the media
7 certainly very well, and I notice that the schools
8 for executives, you know -- how are you going to
9 deal with the media, right? The first thing they
10 show you to convince you that you really should pay
11 attention is like the Bhopal press conference
12 afterwards or the Exxon after the Valdes.

13 And so there is sort of at least a
14 private sector. A lot of executives are learning
15 that they've got to be prepared, that they could go
16 around the corner and there would be 12, 15
17 reporters with cameras and microphones.

18 So I think that's a changing
19 responsiveness.

20 MR. GARBBER: There was also in the case
21 of Tylenol, having had a little insight into that,
22 not first hand, but about second, is, you know, the
23 company's reaction of pulling all their product off

1 the shelves, and that was kind of decided in a
2 rather rapid fashion among several different folks
3 who kind of said, you know, "What should we do?"

4 And on the one hand, the attorneys were
5 saying, "Well, we may be liable for lawsuits if kind
6 of admit this," and then you had the comptroller who
7 was concerned about how much money the company was
8 going to lose by doing that, and they really sort of
9 came back down in that particular case at Johnson &
10 Johnson to say, "What are we all about?"

11 And the one thing that they felt they
12 could not lose is what this seminar or what this
13 workshop is all about, and that's trust, and that
14 was sort of the defining factor that ruled the day,
15 and it wasn't like it just happened automatically
16 because in board rooms, as all of you know, that
17 decision does not come easily, despite the fact as
18 we sit here in the library of Georgetown University
19 it seems obvious, but it's not always obvious, and
20 so it kind of came down to what do we as a company
21 stand for, and that kind of led to, "Well, we have
22 no choice. It's got to go," despite tremendous risk
23 an expense to the company.

1 But in this particular case, combined
2 with other things that Doris talked about, the
3 company certainly is one of the most prestigious
4 firms in the world today.

5 So, anyway, let's see. Ray?

6 MR. HIEBERT: Well, I think we've moved
7 from elasticity to media.

8 MR. GARBER: Well, we almost did.

9 MR. HIEBERT: I want to say a couple of
10 things about bad news because that's come up
11 already. There's a real difference between bad news
12 and inaccurate news or bad news and exaggerated
13 news, and I don't think that good news is
14 necessarily any guarantor of public confidence.

15 The best example, again going back to my
16 own experience, is the Soviet Union where everything
17 was always good about what they were doing, and yet
18 nobody had any confidence in that government
19 whatsoever, and everything was bad about what
20 America was doing, and yet nobody had any ill will
21 toward America.

22 As a matter of fact, when I go to
23 Eastern Europe, kids there when they want to say

1 what's really cool, they say, "That's real America,"
2 because even in spite of 40 years of hearing that
3 America was evil, the evil empire, nobody trusted
4 what they heard.

5 So it's easy to always blame the
6 messenger for the bad news, but remember that the
7 media didn't do the evil things. They're just
8 reporting on it, and I'm quite happy or I feel a
9 whole lot better when I can get access to
10 information about the fact that my mutual fund is
11 not performing well from Forbes or the Wall Street
12 Journal. If I had to trust my mutual fund for that
13 information, I probably wouldn't invest in the
14 mutual fund because I wouldn't believe them.

15 So I think that actually the media
16 providing bad news and tough news when it is
17 accurate and not exaggerated plays an important role
18 in building public confidence, in building public
19 trust in our institutions rather than making the
20 people lose confidence.

21 I think in the case of the fact of
22 people who watch a lot of television are most apt to
23 think of themselves as victims of violent crime, the

1 problem is that television really does exaggerate
2 violent crime in society. So the media can be
3 excessive, and just the fact that we have free media
4 is also no guarantor that we're going to get the
5 truth.

6 But I think that the bottom line here
7 for both the media and for public institutions is
8 the word "credibility." If the institution doesn't
9 have credibility, the media don't have credibility,
10 then we're going to lose confidence.

11 I think public relations plays a big
12 role in credibility and the way we think of
13 institutions as credible. Unfortunately, a lot of
14 what the public perceives when they hear the word
15 "public relations" is what David talked about when
16 he talked about the con game, and Bob has talked
17 about the spin doctors and the hype meisters. They
18 are not necessarily what public relations is all
19 about because if public relations does its job well,
20 then I think it does what it did at the Tylenol
21 company, and it doesn't do what they did at Exxon.

22 In Tylenol, they insisted, the public
23 relations people at Tylenol insisted that the

1 company be public, be open with what was going on,
2 call in the press, answer all the questions as
3 truthfully and factually as they could.

4 Exxon did just the opposite in the
5 Valdes episode.

6 I think what we're talking about also
7 when we talk about spin and hype is the role of
8 language and how language can be corrupted, and when
9 language gets corrupted, it seems to me that we are
10 going to have a problem in credibility, if not
11 immediately, over the long haul.

12 A lot of people, a lot of the spin
13 doctors and hype meisters get away with corrupting
14 the language for some quick fixes or some short-term
15 gains, but in the long run it does harm to public
16 perception when people find out that the spin had
17 been corrupted.

18 Just a couple of examples. I think to
19 take the term "homosexuality" and show that we're
20 talking about alternative life styles instead of
21 sexual deviation might not be immediately accepted
22 by a lot of people, but, on the other hand, it
23 provides a lot of insight into something that can

1 open people's eyes, and in time may change
2 perceptions.

3 But to use another kind of way of
4 corrupting language or reusing language, during the
5 Gulf War when the government talked about smart
6 bombs, it was a quick fix, and it told people
7 quickly that, boy, we're just hitting military
8 targets, and we're really doing our job, and we're
9 not hurting civilians at all, and people believed it
10 in the short term. We all thought that that's the
11 way it was working.

12 In the long term, we found out that the
13 smart bombs weren't nearly as smart as we were told
14 they were, and now I understand the figures that are
15 widely accepted is that hundreds of thousands of
16 Iraqi civilians and children were badly maimed and
17 killed by the so-called smart bombs.

18 As that information begins to seep into
19 our understanding, we begin to lose trust, and so
20 what we have here is a corruption of language that
21 ultimately destroys our confidence. That, I think,
22 is what we ought to try to avoid and emphasize
23 accurate news instead of the corruption of language.

1 MR. GARBER: Bob.

2 MR. BIES: If I can sort of build on
3 that, Dick Morris had a great saying. He who
4 defines first defines last. I just thought I'd just
5 throw that out. That's an important point to
6 remember in any of this discussion, defines first.
7 That's also good, maximum public relations, being
8 the first out there.

9 The thing that puzzles me from the media
10 because I'm not an expert on it, but as one who has
11 listened to some talks about how certain
12 controversies are handled in the media, take the
13 Dow-Corning breast implant issue. Okay? What do
14 most people think about the Dow-Corning breast
15 implant issue? Dow-Corning made these fraudulent
16 products that cause all of these bad things to
17 women.

18 The fact of the matter is all of the
19 scientific evidence is in, and it's not true. Okay?
20 So two things come out about that for me -- well,
21 three things.

22 One is that in order to make judgments
23 about what caused something, it may take time to do

1 that analysis. Look at our impatience with TWA
2 flight. It takes time, and we want instant answers.

3 So we want instant sort of sound bite answers.

4 So the media needs to present that, and
5 that's part of their job, but also their inability
6 to communicate complex scientific type data, and I
7 mean, I've been interviewed by reporters, and the
8 media plays a very important role. The newspapers,
9 but their inability to think in more complicated --
10 they're not scientists. Okay?

11 What's a sound bite of your research on
12 revenge? You know, well, it's more complicated than
13 that. So their inability to communicate.

14 CHAIR CULNAN: That's why there's no
15 press on critical infrastructure protection.

16 (Laughter.)

17 MR. BIES: But the media feels, and
18 rightly so, feels compelled to get something out
19 there, but they may not be able to give a complete
20 story. So it becomes inaccurate, and we end up
21 believing it.

22 I mean you end up believing. There's a
23 new book out about a woman from the journal of New

1 England medicine. The editor wrote it and said,
2 "Look at the evidence," but you know, it's hard for
3 us to understand that. So it takes time to get it.

4 MR. DARBY: Think about being
5 interviewed on the Federal Reserve quarter point
6 rate hike. Well, what does this mean to the average
7 guy on the street? What does this mean to Joe Six-
8 pack?

9 MR. BIES: It's a little more complex.

10 MS. GRABER: But the media, they have to
11 deal with the readers, and even if they understand
12 it, which they very often don't, they still have to
13 put it down to the point where somebody with an
14 eighth grade education can understand it.

15 MR. KLEINDORFER: If you really give
16 them an answer to that, Mike, they say, "Boring."

17 MS. ZUCKER: Well, wait a minute. Don't
18 be too harsh on them because remember we're writing
19 college textbooks now that are being used at
20 Stanford and UCLA and Harvard that are aimed at
21 junior college students. The target market of
22 textbook publishers now is junior college level
23 understanding. So I mean should we be so tough on

1 the media?

2 MR. LEWICKI: I'd like to hear some
3 thoughts from some of the journalism people here and
4 so forth about -- I made a statement before about
5 distrust sells or bad news sells, and I guess I
6 think that to the extent that we use the media as a
7 vehicle for understanding infrastructure and we
8 judge how much we should trust or distrust the
9 infrastructure based on the way it gets represented
10 through the media, on the one hand, the media has a
11 tremendous responsibility then either to give a
12 balanced perspective or even give us a perspective
13 that maybe we should trust the infrastructure, but
14 that may not be newsworthy.

15 So for those of you who understand the
16 way the media operates, I mean, do they talk about
17 these issues? Do they debate back and forth sort of
18 what sells papers versus what responsibilities they
19 have to communicate?

20 And it's not accurately. It's more the
21 role that they have for representing other
22 complicated parts of our society to the general
23 public.

1 MR. HIEBERT: The public also has a
2 responsibility to select the media that will give
3 them the full and accurate information, and I'd like
4 to have a choice available in my life where I can
5 choose those media that I think are doing a good job
6 and stay away from those that aren't.

7 But there are a lot of factors that are
8 mitigating against really good journalism these
9 days, and I think this is widely communicated within
10 the media and academic circles where we're concerned
11 about the media.

12 There is a growing corporate journalism
13 that's placing the emphasis on profitability rather
14 than public service. That's a problem. There is a
15 -- it's easy to abuse information when you have to
16 reduce it to a sound bite or a photo op. on
17 television, and of course that's a problem.

18 It's harder and harder for journalists
19 to get full and accurate information from those
20 institutions that don't want to give full and
21 accurate information. That's a problem, too.

22 So I think it's something we all share.

23 It's not an adequate answer, I think, just to blame

1 the media for these failures, but they certainly are
2 failing in a lot of ways.

3 MR. GARBER: Doris.

4 MS. GRABER: I've done a lot of content
5 analyses myself, and I think I've seen literally
6 hundreds of analyses of media coverage on certain
7 topics. Most of them are done on major newspapers,
8 like The New York Times, Los Angeles Times, et
9 cetera, and one of the things that has always struck
10 me is that if you're trying to talk about, you know,
11 bad comments, good comments, and neutral comments,
12 the vast majority of all commentary about things
13 that happened is neutral. You rarely see that
14 reported in scientific journals because the neutral
15 isn't terribly interesting. So they cut out the
16 neutral, and they just look at how much positive and
17 how much negative, and there very often the negative
18 prevails because after all, as somebody pointed out
19 earlier, you know, if the trains run on time or
20 something like that, that's not news. It's only
21 news if it's something that's errant in terms of
22 what one really expects. So there is a balance
23 towards bad news.

1 The thing that strikes many of us now is
2 our local news, and I'm talking now television, that
3 that's all full of crime, which again is true and
4 there are people that do pay attention to that.
5 That's also an economic decision in terms of, you
6 know, it's cheap to go to the police station. You
7 always find something new. You get the police
8 blotters. So you put that on. You know you're
9 going to have an audience for that for which you're
10 going to get some rating.

11 So those are some of the systematic
12 things that assist them.

13 The other part, I think, that is
14 important to understand is that negative information
15 is processed in a different part of the brain than
16 positive information. It goes more into the limbic
17 system, which deals with emotions, et cetera, which
18 gets the hormones involved and then becomes more
19 imprinted, and you have much better memory
20 structure.

21 So compared when you hear good news and
22 bad news, one tends to remember the bad news, and
23 that's part of the human survival process because,

1 you know, we've got to be alert to bad, threatening
2 news and so that becomes more imprinted on our
3 brains.

4 So even in terms of consumption, we tend
5 to in our own reading of things and listening to
6 things single out the things that are negative and
7 have an impression more of the threatening things
8 that we need to be aware of than the things that we
9 can just sort of pass over. "Okay. That's
10 happening. Fine. You know, it doesn't bother me."

11 So I think everything points in the
12 direction of paying attention to negative news and
13 partially featuring negative news, but the realities
14 are if you really look at the media, that there's
15 not nearly as much as we think.

16 MR. GARBER: Dan.

17 MR. McALLISTER: I want to build off of
18 Doris' comment, but bring it back to the question of
19 trust and distrust and its prevalence. It seems
20 that institutions of accountability are critical to
21 the protection of trust. Bob's comment that you've
22 got to have legitimate sanctions in place to make
23 general belief that trust is protected in some

1 senses.

2 And then I think about kind of how do
3 you preserve trust and how do you stop distrust from
4 filtering and just pervading. The answer is you
5 create institutions, groups, the roles that are
6 specifically designed with distrust in mind. Call
7 them police. Call them certain types of agents.
8 Call them the CIA or organizations like that, but
9 there's also the media, which somehow fills an
10 institutionally informing role.

11 And Doris' comment is that while there's
12 a good element of neutrality, the emphasis and the
13 way it's read is that the negativity comes through.
14 So the comment is it's all the more important that
15 we understand the role of that negative because it's
16 what's read, and it drives the distrust if
17 anything's present.

18 The question is: what sort of
19 arrangements can we have whereby we can distrust
20 without it pervading and limiting our ability to
21 trust in the process?

22 MR. GARBER: Paul.

23 MR. KLEINDORFER: I want to perhaps

1 reflect on the importance of both mistrust and trust
2 with respect to the media and when it's important in
3 the infrastructure area.

4 In those areas, if we take, let's say,
5 purely private goods like electric power and to a
6 certain extent telecommunications, I would say there
7 whatever the media wants to do, let them do it. If
8 they're selling newspapers and they're writing great
9 fantasy stories, let them be held accountable
10 eventually. They shouldn't print rank nonsense or
11 untruths, subject to the libel laws and the rest,
12 but I don't have a problem with whatever it is that
13 they do.

14 These are private choices that citizens
15 make as to what it is that they want to purchase,
16 how much they want to induce their utility to
17 provide them with various kinds of services.
18 They've got increasingly choices available to them.

19 Let me switch choices. That's no problem.

20 So in those private areas where trust is
21 easily monitored and reinforced through choice, no
22 problem with the media.

23 When you start moving out to areas where

1 trust is important in terms of the choices that
2 people make, real economic of lifestyle choices they
3 make before the fact, or where it is really public
4 good that only is going to be provided by a private
5 provider, but it's primarily a public good that's in
6 question, whether it be defense or education or the
7 security of the telecommunications system for
8 financial transactions. Those are fundamentally
9 affected by public characteristics.

10 There mistrust can have profound
11 implications on the economic choices that are made
12 to provide a secure existence against what one
13 believes might be realistic and potential
14 vulnerabilities that one faces in one's personal
15 life.

16 So I would distinguish ends of the sale
17 in which, you know, I would be very concerned if I
18 were a government agency to distinguish, as this
19 Presidential Commission is, what are the really
20 strategic vulnerabilities, but also what are the
21 strategic vulnerabilities which we cannot and should
22 not count on the average citizen to be self-reliant
23 and with their choices to be able to be responsible

1 and responsive in those choices.

2 In those areas, I believe that we should
3 not play a patriarchal role in any way, not this
4 Commission, nor anyone else. Let the market of
5 ideas take place, but in other areas, I think that's
6 where the public area and where trust can profoundly
7 affect the choices that people make before the fact
8 as to what they do with their lives, what their
9 assets and what their investments and so forth are.

10 There is an area where I would say we
11 have to be very concerned about working with the
12 media to make sure that the right picture, the right
13 information, whatever that may be, gets out. I
14 would be a lot more careful about that area of the
15 spectrum.

16 MR. GARBER: Any other media comments on
17 the role of the media?

18 MS. GRABER: I have just a question.
19 What are you talking about? Censorship?

20 MR. KLEINDORFER: No, I'm talking about,
21 for example, in this Presidential Commission what
22 one would be interested in providing, I believe, are
23 some guidelines, some standardization, and so on,

1 for determining what really are the vulnerabilities,
2 let's say, in respect to the number of blackouts,
3 the probability of blackouts in particular areas.

4 I would be mildly in favor of that in
5 order to provide citizens in this very important
6 area, which is almost a public good, namely, the
7 reliability of their power system; I'd be in favor
8 of having an independent assessment of that.

9 I don't necessarily think this
10 Commission would do it, but they should suggest that
11 the industry, for example, through Electric Power
12 Research Institute or through the U.S. Telephone
13 Association or other industry associations, that
14 they would get accredited, monitored, attested
15 reports that for various regions of the country
16 would say, "Here's how vulnerable you are to
17 earthquakes, to catastrophic hazards of various
18 sorts. Here's what will happen. Here's what
19 emergency response methods are in place."

20 Now, you see, that information is
21 something I wouldn't like the media to somehow be
22 given full responsibility to uncover and just report
23 what from the point of view of good journalism might

1 be the part they'd like to report. I'd like to see
2 government and the emergency response agencies, in
3 fact, be deeply involved in crafting the nature of
4 that message, but that would be what I was referring
5 to.

6 MS. GRABER: Well, just a quick response
7 on that. There was much concern about misleading
8 advertising during elections, and so in the last
9 couple of years, the last two elections actually, we
10 had this thing called ad watches appearing in
11 newspapers, with the idea being that, you know, the
12 media were independent, and they were going to look
13 at this and really point out what some of the
14 misleading things were.

15 And I think it has had, on the whole,
16 some influence on the advertisers up to a point. On
17 the other hand, audience studies show that the
18 audiences, those who did read this sort of thing,
19 and it was a relatively small percentage, what it
20 did actually for them was reinforce the misleading
21 aspects of the message.

22 They were reading that part, and some
23 people who hadn't heard the ad, this was their way

1 of hearing the ad.

2 So, you know, while I certainly can see
3 what you're saying, there's some real difficulties
4 in doing this sort of thing and getting the right
5 kind of result.

6 MR. GARBBER: Ray, you're next, but let's
7 go ahead and continue, I mean, after Ray or maybe as
8 part of your presentation what Paul kind of began to
9 lead us into the last, final, main question here,
10 and that is the role of government.

11 So, I mean, Ray, you go in any direction
12 you want, but let's kind of move in that direction
13 either with you or after you comments.

14 MR. HIEBERT: One quick question of my
15 own, and that is: should the media have the burden
16 of making the people feel confident about
17 institutions or should the institutions themselves
18 have the burden of making sure they're doing what's
19 in the public interest and thus will earn public
20 trust?

21 And I'll just use this platform to get
22 into government. I think that I'm a little worried
23 about Big Brother, as the government, because of my

1 own experience, I suppose, but clearly, it seems to
2 me that government also has to be trustworthy; that
3 government, as the policeman of the trustworthiness
4 of the rest of the private sector, might be going
5 too far, but I think government has to be
6 trustworthy, and I don't know who's going to police
7 that if the media don't.

8 MR. KLEINDORFER: We, the people.

9 MR. HIEBERT: Well, if the people are
10 misled.

11 MR. KLEINDORFER: It's a problem, isn't
12 it?

13 MR. HIEBERT: It is.

14 MR. GARBER: Please.

15 MS. ZUCKER: I guess Michael and I in
16 our statement wrote a bit about this, and I don't
17 want to take -- I want to try to take explicitly a
18 nonpolitical, you know, way of dealing with this,
19 and so that kind of limits examples I can use.

20 But I think it's extremely important to
21 look at the kinds of problems that government was
22 supposed to be solving and, you know, our rationale,
23 kind of the academic rationale anyway, for

1 understanding why we have government providing it in
2 the first place. It's for activities that otherwise
3 wouldn't be in individual self-interest, but are in
4 the interest of the collective.

5 And it seems to me that as government
6 has grown, that that has somewhat been lost sight
7 of, and so we need to think very carefully and
8 hopefully without ideology, I mean, you know,
9 without thinking, "Well, the government must do
10 this," or, "I personally think this is important.
11 So, therefore, the government should be in it," but
12 rather, really think about added value.

13 You know, what is the added value of
14 having government in each of these specific areas,
15 and then say: Okay. What would be the best
16 strategy? Is it regulations so that you still have
17 a competitive private sector operating, but you
18 regulate it? And if so, what is your idea about
19 what regulations should accomplish?

20 Is the regulation, in fact, meeting the
21 standards of procedural justice? Because what we
22 often see, in fact, as we look at the details of the
23 regulation is that it nowhere comes close to meeting

1 procedural justice. There are so many exceptions,
2 and most of them are politically advantageous to
3 make.

4 And so you get a system which actually
5 is very corrupt, although on the surface it looks
6 like, well, here, the regulations are in place, and
7 this is the system, you know, kind of how it's
8 written, but how it's actually enacted is something
9 very, very different from how it's written.

10 The general feeling of unease that
11 people might have or maybe their perception of kind
12 of a lower confidence in government may not be the
13 really major threat to the system because in most
14 cases, that doesn't directly impinge on their
15 activities. It's not something that is critical to
16 them.

17 I think where these institutions impinge
18 most on activities of other organizations and
19 individuals is where these kinds of problems really
20 have very dramatic effect.

21 So that actually by kind of looking at a
22 general overall decline in public confidence, we
23 really minimize the seriousness of problems we have

1 in some areas, and we exaggerate problems we have in
2 other areas. In other words, we don't really have a
3 good calibration of what the problems are. We just
4 tend to see them, okay, globally. Here you go.
5 These are sort of in decline, and you know, what's
6 wrong with our public institutions?

7 But actually it's extremely uneven. So
8 there are some places where we have, you know,
9 relatively good systems, and I think, you know, FDA
10 is an example of a fairly transparent agency which
11 actually does a reasonably good job. The drug
12 industry will scream. I mean there are problems
13 because sometimes it's very slow, and I guess the
14 privatization, partial privatization of it with the
15 idea that the -- I'm sorry. It's more of the Patent
16 Office to deal with similar problems, might also be
17 applied eventually to FDA.

18 But I'm not saying privatization is
19 always the solution. I'm not trying to not take a
20 particular political point of view, or what can be
21 taken as a political point of view. I'm really
22 trying to say that each -- each case has to be
23 looked at individually. You have to see what the

1 rational is and then ask ourselves, you know, what
2 is the best solution for this particular problem.

3 But to identify the problem takes really
4 careful measurement of the stakeholders that
5 actually involved in it, not just the public opinion
6 survey.

7 MR. KRAMER: All right. I was just
8 going to say, that from my stand point, in terms of
9 thinking about what should be the role of the
10 government and public institutions in maintaining
11 public confidence, if this was a wish list
12 commission, in the sense, I mean, I sometimes think
13 we take a long enough and deep enough prospective on
14 these kinds of questions.

15 I mean, a lot of the concerns that have
16 surfaced today, I think, are about how to trust and
17 distrust wisely or prudently. Under what
18 circumstances should we trust and under what
19 circumstances should we worry?

20 And those are skills. Those are
21 cognitive behavioral skills. I don't know if any of
22 you saw "20/20" last night. Paul Eckman was on
23 talking about his research on lying detection and

1 the detection of deception, which a learnable skill
2 and a useful skill. I teach it to the MBA's.

3 (Laughter.)

4 (Simultaneous conversation.)

5 MR. KRAMER: It depends on which course
6 it is.

7 (Laughter.)

8 MR. McAllISTER: But, you know, what's
9 apparent to a person that is involved in education,
10 I think in lots of ways it really a shame we don't
11 teach these fundamental social skills earlier in
12 life.

13 You know, we try to teach leadership to
14 government students and MBA's and adults when it's
15 really to late, not to be cynical or pessimistic,
16 but in a sense it's to late. You should be teaching
17 children about issues of trust and what it means to
18 have public confidence and wariness about
19 institutions.

20 I'm surprised, you know, we resist so
21 much bringing this into the curriculum of our
22 education of the young. We always wait until it's
23 to late. And when I grew up there was a feeling, I

1 think, in society, that this should be left to
2 parents, that this is a parental prerogative.

3 But I think now there is a feeling that
4 parental prerogatives have kind of failed in a lot
5 of domains, and I think if you look at the popular
6 book write now, On Emotional Intelligence by Dan
7 Goldman, I think the real message from a lot of that
8 research that he talks about in that book is that
9 these social, emotional skills are very teachable
10 and learnable, and we have a good understanding of
11 who's good at it and who's not good at it, and it is
12 a shame we don't get some of this into our
13 curriculum.

14 So I would like to say if this was a
15 wish list, it would be nice to get some these issues
16 introduced into our educational institutions earlier
17 so that people really can learn to think about these
18 issues as they grow.

19 MR. HIEBERT: Just one addition to that,
20 Dan, is I think we should all teach children media
21 literacy --

22 MR. McALLISTER: Yes.

23 MR. HIEBERT: -- so that they will know

1 how to separate out the exaggerations from the
2 realities.

3 MR. KRAMER: Yeah, trust them to be
4 sophisticated consumers.

5 MR. HIEBERT: The messages they get.

6 MR. KRAMER: Yeah, I think that's
7 exactly right.

8 MR. DARBY: What you were saying is also
9 saying that the government should be concerned when
10 there is a lack of distrust in institutions that
11 have earned distrust, or that at least we as
12 citizens should be because it is a valuable skill,
13 the distrust.

14 MR. KRAMER: That's right. Democracy
15 was founded on the mutual distrust of the systems,
16 checks and balances. It is a system of distrust.

17 MR. GARBER: Paul.

18 MR. KLEINDORFER: I want to raise
19 another issue with respect to the boundary of
20 government and private -- what should the government
21 do, and perhaps what they shouldn't do.

22 With just the anecdote that I reflect on
23 also in the little note that I produced based on

1 some research that we've been under taking at my
2 center on the environmental side, and this is a area
3 in which, you know, the framework that I've been
4 using to think through this private actions/public
5 actions required -- they're both public and private
6 actions. The public acts here are set of
7 standards and perhaps measurement and perhaps
8 publishing of information. The private actions of
9 individuals and companies, and so on, have a very
10 undeniable effect on the quality of the environment.

11

12 Now here is an example, just to evoke
13 something in our mind about the role of government.

14 In the ozone area, ground level ozone, we've seen
15 some communities successfully -- Tulsa is an example
16 of this -- implement episodic voluntary ozone
17 control, so-called EVOC.

18 Now what these do is they have citizens
19 and businesses on those few days of the year in
20 which ground level ozone is going to be a very
21 significant problem, a dangerous problem, arguably,
22 undertake voluntary actions. There is a whole list
23 of such actions.

1 And the role of government in this
2 respect is to attempt to get a validated model and
3 monitoring systems for what ground level ozone is in
4 various parts of that region, or any other region,
5 any other airshed; to monitor that and to
6 demonstrate what those are so that one has reliable
7 readings. You're not exercise -- involved in an
8 exercise sympathetic magic when you go through these
9 voluntary ozone controls. You are really responding
10 to a real danger.

11 But in the process we see not just
12 volunteerism, but a sense of a public duty as really
13 a part of this.

14 What trust has to do this, this is a
15 fundamental part, I would argue, of the
16 environmental infrastructure. It sees the meshing
17 of individual actions and government action in a
18 certain way, not command and control, which would be
19 extremely or much more expensive in this particular
20 area, to cause everybody, everyday of the year to
21 put in investments in, to reduce the ozone drivers,
22 NOX and volatile organics.

23 That would be not very smart if, in

1 fact, you can do this in a much better way,
2 essentially relying on the self-reliance and self-
3 sufficiency of people who understand that it is
4 their problem.

5 Now, I could go on about the
6 difficulties of this respect, you know, because if
7 not everybody involves themselves, if the businesses
8 do this willy-nilly, if you do not have a sense of
9 trust generated that everybody is baring their fair
10 share in doing these voluntary controls, this is
11 going to be a real problem, and some cities have had
12 that.

13 But I do want to just with this
14 illustration point to the fact that it's an
15 interesting joining or coupling of individual
16 action, and government in this case providing
17 standards and information that in some instances can
18 be an important play delineating where the
19 government could and should be properly involved.

20 MR. GARBBER: Is that an old single, Rod,
21 there? That's okay.

22 What else about government's role?

23 Joe. I'm sorry, did I miss you?

1 MR. MOORCONES: Yeah.

2 MR. GARBER: Look at that. He's
3 sitting right there. Holy cow. He's too close to
4 me.

5 MR. MOORCONES: I was just thinking that
6 the example of the FDA was a case, I guess, where
7 the government sets up something that assures
8 adequate testing is done before products are allowed
9 for people to cure themselves or feel better or
10 whatever it might be.

11 You might say that the Defense
12 Department, putting my former hat on, the NSA,
13 provides assurance that we don't have foreign troops
14 come on our soil, and we're not threaten, and we
15 trust them to do that. It's sort of a preventative
16 role.

17 What role, if any, does the government
18 have or what role, if any, do infrastructure owners
19 have to prevent themselves from coming under what
20 we'll call cyber attacks? Should there be standards
21 for that? Should there be some degree of -- I can't
22 remember who mentions discovering of
23 vulnerabilities. It might have been Paul.

1 There might be some need for people to
2 do the assessment, look at themselves, and he was
3 referring to natural disasters. And they probably
4 do a good job at that, I think, from what we've been
5 able to find. But what about those
6 attacks or those penetrations that may active, done
7 by knowing and learning human beings? Okay? Trying
8 to cause some sort of damage against infrastructures
9 that are publicly owned that we all depend on, for
10 both defense, for both financial transactions, for
11 medical records.

12 Is there a responsibility here for the
13 public or private sector? I mean what might that
14 division be for that particular one?

15 MR. DARBY: I was thinking about the
16 financial system, and of course, it's hard to
17 recover if it goes down, and the federal
18 government's the ultimate Derringer, and that's sort
19 of part of the problem of whenever we use government
20 guarantees to create trust.

21 But to what extent do things like the
22 service guarantees in utilities where you have to,
23 you know, provide or pay up, and that provides an

1 incentive to protect yourself successfully against
2 cyber attack?

3 To what extent is there not a similar
4 incentive in the financial markets? I think there
5 is a lot there as long as the capital standards are
6 adequate, that the financial institutions will bear
7 the cost of being unsuccessful at that system.

8 We're talking during lunch about how
9 often do they actually get penetrated and what are
10 the losses. I suppose the question is, you know, to
11 what risk or what risk are they going protect
12 themselves? Presumably only the ones they expect.

13 So it's only to the extent there is a
14 realistic -- they see a realistic threat of a more
15 concentrated, maybe coordinated, threat that they
16 would try to protect against it.

17 MR. MOORCONES: If you're done with the
18 question, if you looked at a bad act as being
19 something that might be perpetrated using the
20 network, how does the public/private responsibility
21 roles fall out, given that their private networks,
22 the public needs, their private networks that the
23 government needs to even provide securance, and they

1 might view what's being attacked?

2 To what role do the owners and
3 operators, the equipment suppliers who provide
4 products that are put into these networks, how does
5 that balance come out or what should it be? Should
6 somebody set standards? Should somebody do some
7 studies, set some norms so that we have some
8 understanding of what our weaknesses might be?

9 We certainly don't allow the Defense
10 Department to. We would expect them to keep any
11 missile from ever hitting our soil or any foreign
12 soldier. They have a standard of zero tolerance
13 and --

14 MR. DARBY: That way we have no defenses
15 against --

16 MR. MOORCONES: Huh?

17 MR. DARBY: You know, we have no
18 defenses against --

19 MR. MOORCONES: Well, that's the
20 question. Look into the future. Is there a role
21 here? That's what I'm saying. Because if you look
22 into the future, is there a role here for this
23 vital part that we're all dependent on? And how

1 might that break up between private ownership, which
2 is truly where it ought to be? Okay?

3 You don't want public systems because
4 they don't work as well. They're not as robust;
5 they're as not technologically advanced; and they
6 may not provide us a competitive edge.

7 So how do balance protecting those
8 important --

9 CHAIR CULNAN: And at what price, if it
10 means you have to trade off your --

11 MR. MOORCONES: Yeah.

12 CHAIR CULNAN: -- civil liberties for
13 sort of zero invasion or, you know, 100 percent
14 protection in the electronic world?

15 See, because these are some of these
16 things that we are trying to grapple with and --

17 MR. BIES: Well, if it's framed in the
18 national interest, does it then not become at some
19 point a governmental issue, whether it's an agency
20 or some regulation, if it's in the national
21 interest?

22 CHAIR CULNAN: Oh, but there are
23 examples of -- I mean, just to talk about when I was

1 looking at the encryption debate where the
2 government's arguing it is in the national interest;
3 that basically if you are using encryption we have
4 to be able to get the key and de-encrypt your messages
5 if you are a bad guy, and basically everybody and
6 even a lot of the people in the government privately
7 is backing away saying, "Forget it."

8 I mean, part of it is compounded by the
9 fact that we're also in a global economy. and it's
10 fine for the United States to say something, but
11 that once you leave our borders or our jurisdiction,
12 hey, you know, we're France. We don't care.

13 MR. DARBY: In point of fact, we
14 appreciate eliminating the American competition.
15 It's not that they don't care.

16 (Laughter.)

17 MR. DARBY: They encourage it.

18 CHAIR CULNAN: Right, right, yeah.

19 MR. BIES: Can I ask the commission?

20 CHAIR CULNAN: Yeah.

21 MR. BIES: I mean, you've obviously
22 grappled with this.

23 CHAIR CULNAN: We are grappling. Yes.

1 MR. BIES: What are the issues? What
2 are the alternatives?

3 I mean, you guys must have some sort of
4 staking out possibilities, states of the world. May
5 we react to those?

6 CHAIR CULNAN: Yeah. We are just moving
7 into that phase right now. We've been primarily
8 doing a lot of data intake, and as you -- we've
9 talked to a lot of different stakeholders, not to
10 much to the general public, but we've been doing a
11 lot of data gathering from business, in particular,
12 and local governments who are again all
13 infrastructure owners and operators and users to get
14 a sense of what their sense of the problem is, how
15 they framed it, what they think the government's
16 role should be or not be, and just what are the
17 problems.

18 MR. BIES: I think what is going to
19 happen here is the prevailing political climate in
20 this country is less governmental involvement, okay,
21 until there is a failure. It's like the definition
22 of a conservative is a liberal who is mugged the
23 night before.

1 I mean, you could be a civil libertarian
2 until you're mugged. Okay? And I think social
3 psychologically it's going to be a hard case for
4 much governmental interference.

5 I mean, I've met Dick Morris and Frank
6 Rizzo in the same day. That's pretty good.

7 (Laughter.)

8 MR. BIES: But the whole point being you
9 can have very different effort -- huge failures can
10 be a very different climate.

11 CHAIR CULNAN: Yeah.

12 MR. BIES: If you talk to people who
13 live in the projects of Chicago, you know, the Henry
14 Horner Homes, et cetera, they have no problem having
15 police there, cameras there, checking people for
16 guns because they're worried about their basic life
17 thing.

18 Now, the ACLU goes ballistic, but if you
19 live in that world, it makes sense because life is
20 more important than whether or not you're checked
21 on. So I think the issue about should
22 government be involved or not, it's going to depend
23 on failure experience to really define the debate.

1 Right now the debate will be defined: the
2 government's bad, the private enterprise is good.

3 CHAIR CULNAN: And how -- and the size
4 of the failure also.

5 MR. BIES: Yeah.

6 CHAIR CULNAN: I think.

7 MR. MOORCONES: But I think an example
8 here though that you used and people who are living
9 in as environment that's already turned very bad in
10 there --

11 MR. BIES: Right.

12 MR. MOORCONES: -- the question is
13 should we have made or someone have made an
14 investment so that that environment couldn't have
15 happened because the cameras may not be solving it?

16

17 And it's sort of this whole idea this,
18 this dimension of information and communications,
19 this global marketized. Who should be looking to
20 the future? Who should be trying to identify the
21 boundaries or set them or guide, okay, the way these
22 things are evolving to minimize, okay, cases like
23 that happening?

1 So that if things do go bad, all of a
2 sudden since we all depend on if it's national
3 security, it's finance, it's whatever, we'll all
4 need cameras, and there aren't enough cameras.

5 MR. BIES: Why not be a joint
6 cooperative government private industry watchdog
7 group? Why does it have to be private organization?

8 MR. MOORCONES: No, no, no.

9 MR. BIES: That's why I looked inside of
10 here. It says a cooperative effort between private
11 industry and government. I mean, why not have that?

12 Because I can't trust corporations alone
13 because they'll try to cut costs and -- but on the
14 other hand, government could be -- they have their
15 own agenda. Okay? Everybody has their own agenda.
16 Why not cooperative?

17 MR. LEWICKI: That comes back to what
18 Rod was saying a few minutes ago, and I mentioned
19 that the notion of balance is very powerful, which
20 is that it's not either/or because we have reasons
21 to distrust one or the other, but to the extent that
22 there's a check and balance in the system, we're
23 more likely to see the system in constant dialogue.

1 The problem with balance is that there's
2 a lot of room for diffusion of responsibility and
3 stuff falling through the cracks, and it also makes
4 it difficult to sort of figure out who screwed up
5 when it doesn't work.

6 But I agree with you. I don't think it
7 has to be either/or.

8 CHAIR CULNAN: But who watches the
9 watchdogs? Ultimately at some point somebody is not
10 being watched.

11 PARTICIPANT: The press.

12 CHAIR CULNAN: Right, the press.

13 (Laughter.)

14 MS. ZUCKER: Just compare Los Angeles
15 and San Francisco in how quick the earthquake damage
16 was repaired, and look at the two systems of
17 procuring bids for the work that needed to be done,
18 and then ask yourself what you want to end up with.

19 MR. HIEBERT: Can you explain what the
20 problem was?

21 MR. DARBY: In Los Angeles, it was an
22 emergency, and they quickly got out the bids before
23 any sort of "well, you know, since we're going to

1 have to rebuild anyway, let's redesign. Let's do a
2 little social engineering. Let's consider
3 alternative." They just went out with the bids,
4 went out on incentive contracts where the faster you
5 got it done, the more you made, and most of the
6 projects were done under time and essentially it was
7 rebuilt in a year.

8 In San Francisco, they're just about to
9 start letting out the bids on rebuilding some of the
10 freeways, and that was an earthquake in what, '89
11 versus '94.

12 MR. HIEBERT: Well, what happened in San
13 Francisco that they're so slow?

14 MR. DARBY: Well, you know, the
15 government had to decide what to do, and you know,
16 there was probably going to be --

17 MS. ZUCKER: Set up standards for the
18 bids and then --

19 MR. DARBY: -- the usual political horse
20 trading or whatever trading, and so nothing got
21 done.

22 MS. ZUCKER: So, you know, a few things
23 got fixed right away, but imagine Los Angeles, where

1 we had major freeways that, you know, were cut.

2 MR. DARBY: But so did San Francisco.

3 MS. ZUCKER: Yeah, but San Francisco
4 still has -- they just repaired one of them now, and
5 they just finished like a few weeks ago with one of
6 the major ones that, you know, was hampering traffic
7 for everybody, for the entire time the connector was
8 down.

9 MR. DARBY: Years.

10 MR. McALLISTER: I was thinking of a
11 little example, too, and I didn't know whether it
12 fit with infrastructure, but right now in the
13 Dakotas dikes around cities are seen as a good deal,
14 and Duff Roblin (phonetic) in Winnepeg, with his
15 nice little floodway around the city, is seen as a
16 hero, and he die it seven years ago.

17 But the thing is minimizing the number
18 of disappointments tells me it doesn't matter whose
19 responsibility or who's blamed. In the process
20 you've had one or two disappointments. Something
21 gets done, and there's action, and maybe it takes
22 one or two major cyber space type failures, and
23 government steps in, and it's appreciated for it. I

1 don't know.

2 Everyone should practice safe computing,
3 but beyond that --

4 (Laughter.)

5 MS. ZUCKER: But that doesn't really fit
6 the San Francisco-Los Angeles comparison.

7 MR. McALLISTER: No, it doesn't.

8 MS. ZUCKER: And in that case it was
9 kind of the courage to take action, to set
10 deadlines, and to say, you know, "If you're not done
11 by this date," you know, and to create incentives
12 for these contractors to really throw out every
13 person they could on the job to finish before and to
14 make extra money.

15 So, you know, what I think isn't being
16 thought through still is the incentive system that
17 you set up (a) to make the decision in a timely way.

18 I mean this is an example. You know, why should
19 you have to make the decision? Maybe you don't even
20 have to have a committee to make it because there's
21 no pressure; there's no incentive; there's nothing
22 pushing you to make the decision.

23 It doesn't have to be a problem. It

1 could also be a big incentive, you know. Someone
2 who comes up with a solution, they can win a huge
3 contract. Someone who comes up, you know, there'll
4 be some benefit to putting energy into it.

5 MR. KRAMER: I think in Los Angeles
6 though you have to move very fast anyway because
7 there's only months between natural disasters
8 anyway. So you can't let them stack up, between the
9 fires and the floods and the earthquakes.

10 MS. ZUCKER: Yeah. Well, you can say
11 that about San Francisco, too. What about the
12 flooding that everyone had?

13 MR. KRAMER: We have a problem in San
14 Francisco.

15 MS. ZUCKER: Yeah. There's been a whole
16 series of problems, too.

17 MR. TYLER: To defend San Francisco,
18 being from Berkeley --

19 (Laughter.)

20 MR. TYLER: -- there's two sides to this
21 because look at the Oakland fire. We had the
22 Oakland fire. People were saying, "Well, wait a
23 minute. We should have commissions to discuss

1 this," and everyone said no. So immediately they
2 said, "We won't make any changes," and now they're
3 pretty much rebuilt the Oakland Hills. They didn't
4 widen the streets, although a major problem was the
5 fire trucks couldn't get up the hills. They didn't
6 ban roofs that are made out of wood, even though a
7 major reason the fire spread is that people build
8 flammable roofs.

9 So what they did there is they said in
10 order to make this happen fast, we won't consider
11 any changes, and you might say, well, maybe
12 sometimes considering change is a good idea, and
13 just to redo the old immediately isn't the only
14 obvious good.

15 I think it's complicated.

16 MS. ZUCKER: You know, it's funny
17 because insurers in Los Angeles won't insure you in
18 areas close to the any of the fire vulnerable areas
19 if you have shake roof, for example. You just can't
20 get insurance.

21 CHAIR CULNAN: So maybe go ahead and
22 build your house, but if you build your house with a
23 shake roof, even though the government will let you,

1 you can't get private insurance, and so, again,
2 there's a lot of competing kind of tensions to get
3 people to behave in a socially desirable way.

4 It doesn't solve the fire truck problem
5 though. That goes to sort of the public interest
6 versus the private good that Paul was talking about.

7 MS. ZUCKER: We need to make skinny fire
8 trucks.

9 CHAIR CULNAN: Skinny fire trucks.

10 (Laughter.)

11 MR. DARBY: You know, I was thinking
12 about government's role, and one place where we have
13 a lot of this sort of experience is in the financial
14 area. We have lots of regulations there, and
15 they're very similar sorts of threats. Indeed, a
16 lot of the cyber threats are just the same old
17 financial scams done with a different technology.

18 One thing we had, we used to have sort
19 of capital standards that were sort of set by a
20 schedule, and then we got the idea, well, a
21 sovereign government can't default, and so
22 government officials in the '70s thought, well, you
23 know, a wonderful way to promote development is to

1 get American banks to lend to foreigners, and as
2 long as we spread our risk, you know, they lend to
3 Brazil, they lend to Mexico, they lend to Chile,
4 there'd be a lot of diversity there.

5 (Laughter.)

6 MR. DARBY: Well, anyway, so that kind
7 of led to a bad test about government setting
8 standards for financial safety, and sort of now the
9 international standard, at least for the major
10 banks, the ones that are big enough to know what
11 they're doing -- and they may be a good proxy for at
12 least major utilities -- is you guys have to decide,
13 given the risk and given what you're investing in,
14 what's adequate capital. You have to show us your
15 risk model, how you're assessing how these risks are
16 correlated, and then we're going to audit how when
17 prices change in the markets when things happen, if
18 you will, the shocks. Was your risk model adequate?

19 And as long as your risk model seems to
20 be adequate and you're under that risk model
21 maintaining adequate capital there, I mean, there is
22 a standard in terms of how many sigmas you have to
23 be able to survive, but, you know, it's very audit

1 based. It's market based. It doesn't give you the
2 incentive to, "Well, okay, here's the government's
3 capital requirements. So how are we going to game
4 them?" which is what the old system did. Basically
5 you maximized your risk subject to these capital
6 requirements, and there is always going to be some
7 area where the government didn't see the risk. So
8 that's where you put all your assets.

9 So now the financial institutions, at
10 least the wholesale ones, are forced to adequately
11 assess their risk, and that's what they're being
12 judged on. A different role.

13 MR. GARBER: Ray.

14 MR. HIEBERT: There are two things that
15 I think haven't been mentioned yet that probably
16 ought to at least be mentioned that can be done, I
17 think, on this whole problem of public confidence,
18 and one is developing crisis management systems
19 within institutions that will allow you to deal with
20 the problems when they become public and when they
21 rise.

22 And the second one is to develop early
23 warning systems so that you track public confidence,

1 levels of public confidence, and can begin to do
2 something when you see that people are losing
3 confidence in your institution.

4 And I think both of those are roles that
5 public relations can play for institutions.

6 MR. KRAMER: Can I just raise a question
7 about that, Ray? Again, this is some sort of
8 deviance, but do you think when you do things like
9 that with organizations, is there a tendency for
10 them to suffer from the very kinds of corruption you
11 were talking about, language and stuff, where what
12 ultimately ends up being the focus of concern is
13 effective crisis management from the standpoint of
14 spin control and identity protection and so forth
15 and defensive kinds of responses, as opposed to
16 really solving the problem?

17 And I'm just asking that as an empirical
18 question. I don't know what the answer is, but I
19 worry that these systems then get corrupted, and you
20 have a situation where the focus is on protecting
21 the institution.

22 MR. GARBER: I can kind of address that
23 a little bit because we do a fair amount of crisis

1 communications work, preparedness, both after the
2 fact and before the fact, and of course, the
3 recommended way to do this thing is to get your
4 ducks in a row ahead of time.

5 And in doing that it's much more of a
6 careful analysis of what the requirements might be
7 in order for you, while you are addressing the
8 problem, to keep it from being more of a crisis than
9 it actually is by the injection of this element that
10 comes into play in a large situation that's
11 represented by the media.

12 I mean, you know, the thing that
13 oftentimes makes things the real crisis when, you
14 know, the world gets involved is when the media
15 comes in. I mean the media didn't do it, as Ray
16 said earlier. I mean you had the problem. You
17 spilled the oil or you released the gas or whatever
18 it was that you did, and all of a sudden though the
19 thing that really kind of tweaks you a little bit
20 and your board of directors and everybody else is
21 when all of a sudden it's on the front page of the
22 morning paper.

23 And so every time we go into a company

1 ahead of time, as we try to get all of our clients
2 to do if they'll listen to us is it's a matter of
3 setting down your procedures about how you're going
4 to insure that the correct, the accurate, the
5 correct information is given out to the public in a
6 timely fashion.

7 And the thing that you totally focus on
8 preventing is what I might call the inadvertent
9 release of misinformation. I mean, you know, the
10 president of the company may be well versed in what
11 the issue may be and have the big picture and be
12 able to come out and articulate it, but what about
13 the telephone operator, the receptionist who's the
14 first person that the reporter is going to call for?

15 You know, the reporter calls and said,
16 "Can I speak to Mr. So-and-so?"

17 "Well, he's busy right now."

18 And he says, "Well, what's going on
19 around there?"

20 "Well, I don't know what's going on, but
21 I can tell you there's a big fire out back here.
22 You know, there are people running around, and I saw
23 the ambulance coming."

1 (Laughter.)

2 MR. GARBER: And so a lot of the things
3 that we do, you know, when you come in is, you know,
4 yeah, we want to control it. We want everybody to
5 know their role so that kind of thing doesn't
6 happen, and we invariably find that companies feel
7 after we go through a one-day crisis drill that they
8 are just amazed at what they haven't prepared
9 themselves for.

10 In other words, I mean, you know, where
11 is the hazardous materials team if you need them,
12 and if it's a food thing, you know, where are the
13 FDA representative and the various other
14 governmental agencies that you have to notify and
15 keep informed?

16 Because all of these people are
17 potential communicators and will be sought by the
18 media to explain what's going on, and the critical
19 thing is that what gets explained is no worse than
20 what's going on. I mean, it's almost that simple.

21 And I would tel you that if we could
22 ever get people just to kind of think through this
23 beforehand so that when something happens, that

1 there is a team of knowledgeable operators that get
2 together with the spokesperson in the war room, so
3 to speak, to grasp the problem and keep the public
4 informed while addressing the issue and keeping
5 their employees informed and all of that kind of
6 thing.

7 If you'll just go through those steps in
8 a non-crisis situation, you're far ahead. I mean,
9 in my view, it seldom gets to spin doctoring. I
10 mean, it's far more basic than that, and I mean, we
11 wouldn't suggest that one should come out and talk a
12 half truth or an untruth because the fact is that,
13 you know, in a crisis Norm Augustine, the outgoing
14 Chairman, what did he say? Tell the truth and tell
15 it fast.

16 MR. DARBY: Right.

17 MR. GARBER: You know, pretty darn good
18 advice, but you've got to be sure that what goes out
19 to the media, to the public, is, in fact, you know,
20 what the situation is because I can assure you there
21 are probably 15 different people that can corrupt
22 the information that's released, and once it goes
23 out remember all the newspapers -- we've talked a

1 bit about the media and I've kind of not said a lot
2 about it -- but I don't think reporters inherently
3 publish things that are untrue. But if you tell a
4 reporter something, the reporter has the right to
5 report what you said, and if what you said was wrong
6 or if you're the telephone operator that really
7 doesn't know and nobody has told you, "Oh, by the
8 way, listen. Get somebody who does know," then the
9 reporter is not to blame and he hasn't not done his
10 job, or her, and they've not been dishonest.

11 MR. BIES: Let me ask you go, to go on
12 the incentive. Take the incentive argument. What's
13 the incentive for the firms that are part of this
14 critical infrastructure to engage in the civil
15 defense preparedness training? I mean, how are we
16 going to "incent" them to do this?

17 What you're talking about is the
18 symbolic management, symbolic implications of
19 whatever happened, but then there's the incentive
20 how do you get them to try to address the technical
21 problems of Joe. I mean how do you create
22 incentives to do that unless there's failure?

23 MR. DARBY: Survival is the same?

1 MR. BIES: Yeah, but they don't see it
2 in those terms. I mean, is everybody hiring your
3 services or Hill & Knowlton or whoever the
4 variation -- I mean, is very firm hiring crisis
5 prepare -- I mean --

6 MR. GARBER: I wouldn't say every person
7 is, but you know, some do, some don't, and there's
8 not a particular type of firm that does or doesn't.
9 It, again, oftentimes comes back to the issue of
10 what's the cost and is a concern and we should spend
11 the time, not just the money. It's the time because
12 when we come into a firm, I mean, it may take two
13 days to do a drill, and when you take the top
14 management of a company and all the operators who
15 may have a role to play and take them off the job
16 for two days, that's a lot of money.

17 MR. BIES: Well, how does it become a
18 priority on an agenda item for a firm in the
19 critical infrastructure? Don't you need it for all
20 the firms? You've got this interdependence.

21 I'm just asking you. I don't know the
22 answer.

23 MR. GARBER: Well, the simple answer to

1 your question is every firm in the country, to
2 include governmental agencies, ought to have the
3 crisis management and crisis communications plan.
4 Every one should have that.

5 MR. BIES: But a government could
6 mandate it or a government -- I'm trying to get to
7 the sense of how do you get --

8 CHAIR CULNAN: I mean, one of the things
9 that they will do, and Nancy ought to respond to
10 this also since she's in the risk management
11 business, but the sense we get is companies respond
12 they will manage the risks they know about, and so
13 one of the issues is: what's their risk model?

14 And if their risk model suggests to them
15 something could happen and if it happens it's
16 catastrophic and, you know, this probability,
17 expected value, then they'll bring in Bill and his
18 team, and then they'll say we need to manage this,
19 and this is one way to do it, and it's worth the
20 time and the money.

21 If they don't, if it doesn't fit into
22 their risk model, they're not going to do it because
23 it's a waste of money and time in their best

1 judgment, and they could be wrong.

2 And so one of the issues for us is: do
3 the companies, the infrastructure owners' risk
4 models need to be updated? And does the government
5 need to provide them information saying there are
6 new risks and you should address them? And to maybe
7 take the chain a little further, this is one way to
8 address it. Maybe it's something.

9 But that's a good point.

10 MR. BIES: It's a bully pulpit.

11 CHAIR CULNAN: That's a good question.
12 Yeah, or just it comes down to money. You know,
13 what's the risk of this happening? What's it going
14 to cost us if it happens? Measure those together,
15 and if the risk is very low and the cost is very
16 high, maybe it's not in our -- you know, maybe it
17 doesn't make good sense as a business to do this or
18 maybe it does, unless somebody comes in and says you
19 have to do it because the risks are so great to the
20 public good.

21 MS. WONG: Ultimately it comes down to
22 what is important to the business.

23 Number one, to stay in business and

1 survive.

2 Number two, does it create a competitive
3 advantage?

4 And, number three, is there a return for
5 the investment you're going to make either in
6 reduced costs because you may have to address the
7 consequences of not paying attention to a threat, or
8 that you're going to save money by doing that?

9 MS. ZUCKER: Part of the question is how
10 do nonprofit or governmental organizations respond,
11 and I'm wondering. I don't know the answer to this,
12 but I'm wondering what universities did after all
13 the revelations about Stanford and its fund
14 management problems and what the reaction was to
15 that in terms of actions, kind of preventative or
16 clean-up, whatever, actions that other universities
17 took to not be in the same situation.

18 It might be a way to understand how
19 these risks are managed.

20 CHAIR CULNAN: How are we doing on time?

21 MR. GARBER: It's 20 to three.

22 Any other comments?

23 CHAIR CULNAN: We could go around.

1 MR. GARBER: Ray, is your sign up there
2 or was that an old sign?

3 CHAIR CULNAN: Well, we could also go
4 around, too.

5 MR. GARBER: Yeah, I was going to say --
6 yes, Nancy.

7 MS. WONG: I'd like to ask a question,
8 and that is getting back to one of the original
9 questions, and that was: what do you think of
10 government's role in enhancing or supporting or
11 maintaining public confidence? What do you think it
12 can do or cannot do?

13 CHAIR CULNAN: Or should not do.

14 MS. WONG: Or should not do, as it
15 relates to public confidence or trust, because what
16 I'm hearing, what I've heard today is that there are
17 things; there are actions that any organization can
18 take to manage trust and to manage public confidence
19 because your trust in something can survive or your
20 trust or confidence can survive an incident if it
21 has been properly developed and enhanced over time.

22 So given that understanding and that set
23 of principles, what might the government's role be

1 as it relates to our critical infrastructures?

2 MR. HIEBERT: Upholding laws, and I
3 think one of the laws that I think really ought to
4 be upheld is the monopoly laws because the more we
5 have monopolies -- and I think this does impact on
6 public utilities which we've been talking about a
7 lot today -- but rate structures and that sort of
8 thing. I think government can play a real role in
9 that sense.

10 But it seems to me it has to be legal.
11 My experience in post-communist countries is that
12 the heavier hand the government had, the less
13 confidence people had in their institutions in
14 general.

15 MR. TYLER: I think government itself
16 has a problem, and that's something we've discussed
17 throughout this. I mean, in a sense, government
18 needs to get its own credibility in order before it
19 can act as an honest broker in these other
20 situations, and so I think that's one obvious thing
21 for government to do, is to create and enhance its
22 own legitimacy, and once it's done that, then it's
23 in a position to act more like a referee or an

1 honest broker in these efforts to manage business.

2 MR. LEWICKI: Yeah, I guess I'm
3 compelled to say what whoever said it, this is trust
4 in a particular individual as opposed to trust in
5 the systems. I think that was very accurate, which
6 means in part, to the extent that you want to do
7 that, some individuals representing government are
8 probably better than the government speaking as a
9 faceless bureaucracy so to speak.

10 I mean, you know, sort of finding your
11 most trustworthy spokesperson may be one of the more
12 critical things you can do rather than trying to get
13 the institutions themselves to broadly try to manage
14 or moderate that.

15 But I mean I was stuck on the question
16 because I don't trust government. So if you can
17 what can government do, then I would say, you know,
18 stay out of it. At some point the less they tried
19 to do without enhancing their own trust first, the
20 better the impact they would have.

21 MR. BIES: But even with the current
22 government structure, isn't the intelligence that
23 can be gathered and shared, to share with

1 corporations, to highlight potential -- I mean
2 there's -- you could say just government should do
3 its job better, what's all on the books, but there's
4 some intelligence things. How would corporations
5 know unless they have their own intelligence?

6 So government could play that role of
7 information.

8 MR. GARBER: It's probably a two-way
9 street, don't you think?

10 MR. BIES: Yeah, probably.

11 MS. ZUCKER: I was going to say I wonder
12 if government isn't behind right now on
13 intelligence. My guess would be that right now
14 industry is ahead of government because of the
15 changing nature of the risk and who's involved in
16 espionage activities. Just a guess.

17 MR. MOORCONES: I would just disagree
18 about it.

19 (Laughter.)

20 MR. GARBER: Well, listen. Let me
21 suggest as a close, let's just kind of go around
22 starting with David there, and if you have any
23 closing thoughts, wisdom, comments to share with the

1 group, things you've been waiting to say all day
2 that you haven't gotten a chance to say, let's kind
3 of hit that, and then I'll call on Mary to kind of
4 close the session.

5 MR. GEDDES: I'll put in a word or two.

6 Talking at the break, and this
7 reiterates just what Nancy said a moment ago about
8 what are businesses really interested in in the
9 private sector is they look at how to keep
10 customers, retain customers, maintain competitive
11 advantage, and have a long-term revenue stream to
12 keep in business.

13 Companies also -- I believe there's
14 probably a vast amount of information, probably at a
15 slightly more micro level than we're talking about
16 today -- that private businesses do know. They
17 don't use the word "trust," but it is very linked to
18 this on what they can do to build relationships.

19 It should be a vast amount of
20 information to tap into and coordinate, if they can
21 be properly accessed, but the real dilemma that we
22 face is what about things that require a little more
23 communication and coordination and facilitation that

1 we don't get because companies are focused on their
2 own business success and not looking at areas where
3 they interact and interface.

4 And this is a very big dilemma because
5 the critical infrastructures we've all listed are
6 either still regulated in the midst of deregulation
7 or have been relatively recently deregulated, and in
8 the deregulated areas we know there are problems.
9 In the regulated areas, we sure know there are
10 problems, and there's got to be a better solution to
11 it all.

12 MR. McALLISTER: My mind is spinning,
13 and I don't know that I can cogently put things
14 together, but one strong sentiment or feeling that I
15 have coming from this is the distinction between
16 managing the impressions of trust and managing the
17 substance of trustworthiness, which underscores that
18 from the difficulty of maintaining that impression,
19 if the substance isn't there.

20 And I guess the concern is that we move
21 our thinking from the question of how do we maintain
22 the presentation and the spin of trustworthiness to
23 how do we minimize the disappointments which are

1 sure to stay with us much longer than the candy
2 coating that covers copying with the disappointment
3 that in the short run took place.

4 Those are my thoughts.

5 MR. KRAMER: Actually I don't think I
6 have any. My head is spinning probably, too, and I
7 don't think I have any specific observations other
8 than to thank Mary and Bill and Joe and everyone
9 else for organizing this. This really is a
10 terrifically, enlightening, sort of interesting
11 discussion. I really enjoyed it, especially as an
12 academic thinking about trust in one perspective.
13 It's really great to hear other perspectives and
14 also think about the real world which is out there
15 occasionally.

16 MR. LEWICKI: I would just add to Rod I
17 have lots of different thoughts. I think one of the
18 things that struck me, too, and it sort of picks up
19 a little bit on what Dan said, and that is that I'm
20 still trying to struggle with trusting the
21 institutions, the structure itself, versus trusting
22 all of the mediating institutions and vehicles that
23 communicate and manipulate or spin, or whatever the

1 right word is, that trust, and it's so easy to
2 displace the second one on top of the first one, and
3 I think it's going to be really hard to try to part,
4 but important, to untangle and try to make some
5 sense out of it.

6 I'm going to have to run. Thank you.

7 MR. TRIPP: In the surveys that you're
8 going to do, I guess one of the components that
9 would be really important to do is just sort of
10 measure people's expectations of what it is that
11 they want from particular infrastructures, what they
12 predict, and what they think should be there, and at
13 the same time measure their knowledge of the
14 particular infrastructure, going back to an earlier
15 comment, and there'll probably be some research
16 coming out on this, that people may have strong
17 public opinions but know absolutely nothing about
18 the topic, and so studies that measure what the
19 opinions are and then also test them on knowledge of
20 various things often fail the knowledge tests. So
21 you qualify their results somehow.

22 CHAIR CULNAN: There was a related study
23 about problems in public opinion surveys that

1 measure people's concern, and if you just ask
2 people, people are concerned about everything, and
3 they actually put in a public health problem that
4 didn't exist, and people were just -- whatever this
5 made up thing was, people were incredibly concerned,
6 and so the idea is you not only have to ask them
7 have they heard anything about it, are they
8 concerned about; if they're concerned, how concerned
9 they are. So that's an important point.

10 Thanks, Tom.

11 MR. TRIPP: Thanks.

12 MR. GARBER: Betsy.

13 MS. HARRISON: One of the ideas that I
14 remember well, and I think may be useful for us, is
15 your point about small wins. I think the government
16 hopefully can achieve some of those with some of the
17 ideas we're considering now. Among them are
18 certainly sharing information, the values in
19 education and training and the areas we're looking
20 into.

21 And then as sort of a counterpoint to
22 that, I remember very early in my time at the
23 Commission after this whole situation that we're

1 studying and looking into was presented to him, the
2 staff director of a major committee said, "Well,
3 we'll just have to wait for a couple of blackouts, a
4 few bad events, and then we'll react to it." He
5 said, "We aren't going to do anything before then."

6 Congress is basically a reactive
7 institution, as I think we all know, and that's the
8 usual cynical response, but I think there are
9 probably good, preventive things that government can
10 do, and that's what we're trying to achieve.

11 MS. BANKER: I think just building on
12 that point about small wins, I think the advice
13 that the group's giving about the government kind of
14 cleaning up its own act and the public perception as
15 a first step is good advice, and I just thank the
16 group for coming together and talking about this
17 issue.

18 MS. WONG: And I want to thank all of
19 the people, everyone here. It's been a very
20 enlightening and thought provoking session. I feel
21 it's also been extremely productive.

22 As some of you have noticed, I've taken
23 reams of notes, and it's generated a lot of thoughts

1 on my part in terms of risks and how we're going to
2 manage it, what the possibilities are, and what we
3 can't do about it, which is, I think, more
4 practical.

5 So I thank you all.

6 MR. TYLER: Well, I would just join Rod
7 in thanking all of you. I think we also learned a
8 lot. This was a very interesting discussion.

9 MR. MITCHELL: I think one of the very
10 things that we will see come out of today, out of
11 our observations, is to energize the academic
12 community and perhaps even the private sector and
13 government around these issues and open up fertile
14 new areas of research, and for that reason I was
15 really looking forward to addressing the last
16 question on our list today, which is if we were
17 chairs of this Commission, what research questions
18 would we like to see addressed, understanding that
19 the Commission would only be able to address a
20 finite number of them.

21 But let me tell you about one of the
22 ways in which I came upon issues of public trust and
23 confidence with respect to infrastructure is by

1 virtue of my own background as a computer crime
2 prosecutor, computer crime, someone who engages in
3 computer crime investigations.

4 My own experience has been that computer
5 crime, unauthorized computer intrusions, computer
6 related crime, seems qualitatively different from
7 other types of crime because of an extreme
8 reluctance of victims to report and to enlist
9 assistance of the government.

10 And it led me to ask: well, why is
11 that? Can we imagine a world where, say, a large
12 percentage, if not a majority, of victims of violent
13 crime wouldn't come to report those criminal
14 incidents to the government?

15 And what I'm coming around to, and this
16 will perhaps invigorate some criminology research
17 out there is that maybe public trust and confidence
18 serves in sort of a pivotal role in making those
19 types of determinations.

20 I can envision, for example, where the
21 private sector, a victim of a computer related
22 offense, would say that, on one hand, there are
23 expectations placed upon them, expectations to

1 participate as a good citizen in criminal
2 investigation, expectations to find who the bad buys
3 are and who is doing damage to the business, and, on
4 the other hand, there are a whole set of dangers
5 associated with reporting criminal violations,
6 criminal penetrations of computer systems, dangers
7 relating to having to air vulnerabilities, having to
8 alert the public to the possibility of
9 vulnerabilities, and the resultant loss of public
10 trust and confidence that could result from those
11 disclosures.

12 And so in a sense there is a calculus
13 there that I think is really deserving of some
14 further study, and I would certainly look forward to
15 seeing some of that work done.

16 MR. DARBY: That sounds very
17 interesting.

18 I was very pleased to be here. There
19 was certainly free trade in ideas. I hope that on
20 my part at least there was some fair trade.

21 MS. ZUCKER: This is my favorite topic
22 for a Presidential Commission.

23 MR. HIEBERT: I think blind trust or

1 absolute trust in our public institutions is not
2 good for democracy. I think healthy skepticism is.

3 The problem occurs when skepticism becomes cynicism
4 and people stop acting and stop believing.

5 And so I hope that out of this kind of
6 Commission effort we will not discourage skepticism,
7 but find ways to prevent cynicism.

8 MR. BIES: To build on that, two things.
9 The Russian proverb that Reagan translated when
10 Gorbachev came here: trust, but verify. A certain
11 skeptical attitude is held, which is what
12 universities should do, is encourage skepticism, not
13 cynicism, before you make decisions to take action.

14 The second thing, with all of this
15 discussion about risk and probability, I'm still
16 unsatisfied for this reason. I mean, who's going to
17 be looking out for me? Okay?

18 With that aside, it's an interesting
19 discussion. The thing that government can do and
20 ought to think about is when the outcome does occur,
21 where there's some critical infrastructure failure,
22 and there will be because the mean time between
23 surprises and the expected time between surprises is

1 going to get smaller and smaller and crazier and
2 crazier; government's role is part of the clean-up.

3 So there has to be some sort of FEMA
4 equivalent or maybe it will be under FEMA to sort of
5 pick up. I mean government has got to do that. I
6 mean, are the corporations going to pick that up? I
7 think government can play a role when the outcome
8 occurs.

9 MR. MOORCONES: I thank everybody who
10 came. I certainly learned a lot, and after thinking
11 about my response to Lynne saying I don't agree with
12 you, maybe since this was focused on public
13 confidence and trust, probably what I should have
14 said: well, if that is the case, then it seems that
15 we should be having a loss of public confidence in
16 the government's ability to understand what's
17 happening in the world, and that is something it is
18 supposed to do to protect us, and we should mold,
19 okay, the public through either getting its
20 confidence to drop or its trust, to motivate the
21 government to get back in front.

22 So thank you for your observations.

23 CHAIR CULNAN: Bill, do you have any

1 parting shots?

2 MR. GARBER: Oh, gee, no. It's just
3 been great fun, and obviously my focus is on less
4 the sociology and the psychology of it and more on
5 the what do you do about it either before you have
6 the problem or afterwards from the standpoint of the
7 media.

8 But it's very enlightening to me because
9 a number of the things that have been discussed in
10 terms of why things happen and why the particular
11 thing that we heard about people remembering bad
12 news, not that it's necessarily more bad news in the
13 paper, but the fact is that there's an actual
14 scientific reason why we remember bad news rather
15 than good news I found very interesting and
16 something I'll use also.

17 CHAIR CULNAN: I want to thank you all
18 again for coming. We really appreciated this. I
19 learned a lot today, plus it was just a real treat
20 to spend the day not only with my colleagues from
21 the Commission, who I see very day, but also with my
22 academic colleagues whose research I read, and to
23 see you all face to face has been terrific.

1 Now that you know more about what we're
2 up to, if you have papers, other things that you
3 have written, you've got my address and my E-mail.
4 Please send them to me. We will read them. We will
5 add them to our archive. We will be really pleased
6 to have whatever you can send our way.

7 Steve talked a little bit about
8 outreach, and again, that was another purpose of
9 having this workshop. We hope this will perhaps
10 spur some research in infrastructure issues, trust,
11 confidence, whatever you want to do, and that maybe
12 you'll go back and talk to your colleagues about
13 what we're doing here in Washington and get some of
14 them interested.

15 And then finally just on a personal
16 note, I mean, this is a tremendous opportunity for
17 me. It fell out of the sky to do this, and I would
18 just encourage any of the academics who have a
19 chance to do something like this, you should seize
20 it and do whatever it takes to make it happen for
21 yourself because there's nothing like it.

22 So thank you all, and I'll let you know
23 when the transcript is up so you can check the Web

1 and see how we misrepresented your views.

2 MR. GARBER: And although we didn't go
3 into them in any depth, also I thank all of you who
4 sent forward the papers ahead of time, and we hope
5 that you will take the grouping of them back and
6 perhaps peruse them on your flight back or your ride
7 back or whatever the case may be, but they were a
8 great help and will be absolutely an official part
9 of this proceeding.

10 CHAIR CULNAN: Yes. Thank you.

11 And thank you also to Fleishman-Hillard
12 for the arrangements for this. I think we had a
13 terrific day and everybody appreciated the food and
14 the conviviality and your moderating skills, Bill.

15 MR. GARBER: My pleasure.

16 CHAIR CULNAN: And Kristin.

17 (Whereupon, at 3:00 p.m., the workshop
18 was concluded.)