CHAIR JAMES: At this point I would like to turn our attention to our research experts from NORC, Dr. Gerstein, I would personally like to thank you and your staff for the tremendous amount of time and effort that you have put into this project thus far.

As I read your overview I was quite interested in the range of information and findings that you were able to produce. Your report is, indeed, a testament to the scope of the Commission's research agenda, and to the diligence of your staff.

I understand that your intention is to break your presentation into two parts, one on the National Gambling Survey, and the other on the Community Analysis.

With that in mind I would like to, again, welcome you and ask you to proceed at your pleasure.

DR. GERSTEIN: Thank you very much, Commissioner James, and Commissioners in general.

I'm present here today with Dr. Rachel Volberg, and we would like to present, in roughly the order of material that were in the overview. We have prepared a series of slides, overheads I should say, that will sort of provide an abstract of the material organized in a way that might make it easier to focus.

We weren't certain whether the overview itself was going to be distributed on the table today, so we thought it would be easier if we did this.

Dr. Volberg is going to take the first part of this presentation, and we are prepared to begin, and I think I will just turn this over to her, and why don't I take this set of overheads over and start showing them.

DR. VOLBERG: Thank you. Good morning. We will let Dean figure out the high tech overhead machine. Do you want to perform the introductions?

DR. GERSTEIN: Just by way of introduction, the group that has been operating under contract for the Commission is really a consortium of organizations which have worked a little bit together, but have never worked together as this particular team.

The National Opinion Research Center is the lead member, the prime. And the three other organizations have operated in a subcontract relationship with each other. This is very much a group enterprise.

Gemini Research Corporation is led by Rachel Volberg, Christiensen Cummings and Associates, your previous testifier, Gene Christiensen is located in New York, and throughout New England, as I've discovered, by sending packages to various staff members.

The Lewin group is in Fairfax Virginia, and the three organizations have been operating together since the initiation of this contract.

And this is a fairly substantial sized group, and I just want to reflect and acknowledge the other people who have helped lead this operation over the course of time.

The four here that are testifying today, myself and Rachel, Eugene Christiensen prior, and then in the session tomorrow afternoon, Sally Murphy who has been the project director, will also be present to discuss the operations of the patron survey.

And I would just like to acknowledge John Hoffman, Marianne Toce, Amanda Palmer, Cindy Larison, Al Bard, Rick Harwood, Adam Tucker, Will Cummings, Luchen Chruchro, and Tracy Buie, who have been the people who have led various tasks of all kinds.

This is a very complex enterprise because there are many different kinds of data collection. And this group really represents a much larger group which we will total up and acknowledge in detail at the end of the project.

I would be most remiss to make it appear as though we had individually done all this work by ourselves. And with that I would like to turn to the substantive matter.

DR. VOLBERG: Okay, thank you.

When Dean and I were talking about how to split up this presentation we decided that I would be tasked with presenting the comparison between the 1975 study, the first National Survey of Gambling in the United States, and the survey that we just completed for you.

I would also -- I will also be dealing with some of the results of the RDD sample, or the RDD survey, and then finally looking at some of the initial findings that we have from the youth sample.

So let's get started and talk about the comparison, the only comparison that we have at a national level, with research that has been done on gambling in the United States.

You are all aware that in 1975 there was a survey that was done, it was an in-person survey, that is the people were interviewed face to face. In contrast, our study in 1998 was done by telephone.

We have provided you with some information about the sample size, and about the response rates. The unweighted response rate for the 1975 survey was just a little bit lower than the unweighted response rate for the 1998 survey, and we have not yet calculated what the final weighted response rate will be.

I suspect it probably will be somewhere in the same range, as the response rate in 1975.

The -- one of the difficulties that we had in trying to maintain some kind of continuity with the 1975 survey, which was one of the tasks that you asked us to undertake, is that as you

are aware, gambling has changed a great deal in the United States in the last 23, 24 years.

And a lot of the material that was collected in 1975 simply was not relevant to what is happening today.

My particular expertise is in the area of measuring gambling problems. And this is where things really fell apart.

In 1975 there was no agreed-upon definition of a psychiatric disorder now called pathological gambling. And when the Institute for Social Research at the University of Michigan undertook their study, they simply had to come up with something that seemed reasonable at the time.

The instrument that they developed, I won't go into a lot of details, it consisted of 18 items, and the researchers were perturbed when the results came back. They felt that there were too many people who had scored in the higher ranges of their screen.

So they had a clinician go back and toss out a large number of those individuals who the clinician with expertise in working with people who had gambling problems felt would not qualify in a clinical diagnosis.

We were in a different situation in 1998. We were able to develop an instrument to look at gambling problems that is based on the most recent criteria for pathological gambling published by the American Psychiatric Associations.

We were, additionally, able with the tremendous help from the gambling treatment community, to conduct a clinical validation of that screen. It was not something that was included in the original proposal for this research, but it was something that we felt was absolutely critical to get done in

order to be able to be sure that we were measuring the appropriate thing appropriately.

Continuing with our comparison, these are some of the results. And as I indicated, there were a limited number of comparisons that we could do between 1975 and 1998. We did note that in terms of lifetime participation in all types of gambling, there is a very substantial increase in the proportion of women who have ever gambled.

There was also an increase in the proportion of men who have ever gambled, but as you can see it is only about half the size of the increase for women.

Somewhat to our surprise, I guess, or to my surprise, because everyone is talking in the gambling research field about the large number of youth that now gamble, and one of the questions was whether more youth are gambling now than had in the past, it doesn't appear that there has been a huge increase in gambling participation by youth.

Now, this is overall across all types of gambling. I think when we start getting into some of the finer grained details of this research, we may find that there have been some rather significant shifts in the types of gambling that different groups are doing.

But overall it is interesting that, in fact, the picture has not changed substantially in terms of participation.

You can also see that we've identified some increase in the proportion of seniors, individuals aged 65 and older who are gambling.

So, unfortunately, that is about all we had to do, or all we could do in terms of comparisons with the 1975 study.

Turning now to the 1998 results, specifically, I want to talk a little bit about our methods. As I indicated in 1975 there was no widely recognized set of criteria for identifying someone with a serious disorder which is now called pathological gambling.

The DSM-IV criteria, and I've put them up here for you, the American Psychiatric Association now defines pathological gambling as persistent and maladaptive gambling behavior indicated by five or more of these ten criteria that are up here, with an exclusion, if the gambling is better accounted for by a manic episode.

In developing the screen that we ultimately --

CHAIR JAMES: Excuse me just a minute.

COMMISSIONER LOESCHER: Madam Chair, you are losing me on the previous one. Can you explain that a little bit better in english, simple?

DR. VOLBERG: Pathological gambling is a psychiatric diagnosis now. It was not in 1975. But in 1980 the American Psychiatric Association included pathological gambling as an impulse disorder not elsewhere classified.

That is pathological gambling became a recognized psychiatric disorder. This is not to say that people with gambling problems weren't out there prior to 1980, but the DSM is a standard manual that not just the psychiatric profession, but also all of the counseling professions uses both to diagnose individuals as having various kinds of mental disorders, and is also very significant in getting insurance reimbursement, because the insurance industry reimburses on specific disorders.

CHAIR JAMES: Dr. Volberg, I know that each of these is very clearly defined in the document that you submitted to us.

DR. VOLBERG: Yes.

CHAIR JAMES: But I would ask that you just go through, very quickly, each of those areas for the benefit of the Commissioners and those that are here.

COMMISSIONER LEONE: Before you do that could you also -- I don't understand --

CHAIR JAMES: Can I ask you to speak into the mike?

COMMISSIONER LEONE: I don't understand the phrase "unless these are better accounted for by manic episodes". I'm not sure how that relates to who gets defined in and who gets defined out.

I mean, if it were a manic episode by a pathological gambler would it not be a pathological gambling disorder?

DR. VOLBERG: Well, there are various categories within the DSM, and usually an individual receives a primary diagnosis, I believe it is an X-1 diagnosis. I'm not a treatment professional, so I'm probably not speaking as clearly to this as some of the other people actually here in the room could.

But the issue is that behavior that looks like pathological gambling may, in fact, be exhibited by someone who has a different disorder, manic depressive disorder, and that that pathological gambling may, in fact, be part of their manic depressive disorder, or manic disorder rather than being a sort of stand-alone pathological gambling.

Is that more clear?

CHAIR JAMES: Yes, it is. Thank you, Dr. Volberg.

DR. VOLBERG: Just very quickly, preoccupation refers to an individual's sort of mental activity in terms of thinking about past gambling experiences, planning their next gambling experiences, thinking of ways to get money with which to gamble.

pathological gamblers spend a lot of time trying to figure out, you know, the sort of financial angles that they can use to get money to gamble, and that is what that criterion refers to.

Tolerance and withdrawal are both criterion that were added, actually, to the DSM-IV in contrast to earlier definition, or diagnostic criteria for pathological gambling. And they reflect some pretty clear patterns in the DSM having to do with addictive disorders, including -- we are using withdrawal and tolerance as diagnostic criteria for pathological gambling makes it much more like an addictive disorder than some other of the diagnosis that we have in the DSM.

Tolerance refers to needing to gamble with increasing amounts of money in order to achieve the level of excitement that a person has had.

Withdrawal refers to experiences of restlessness and irritability when an individual tries to cut back or stop their gambling.

I'm reading through these in order, and they aren't exactly in the order up there. But escape gambling is something that we have noticed more, as more women have sought help with gambling problems, women seem to -- who get into trouble with their gambling, seem to gamble for somewhat different reasons than men who get into trouble with their gambling.

And many women gamble as a way to escape from their problems in their personal lives, or as a way to relieve feelings of helplessness and guilt, and anxiety, and also depression.

Chasing is a very common phenomenon across all kinds of people who have gambling difficulties, and it refers to someone returning, very often, the very next day not just to gamble, but to try and get back money that had gone the day before, and the week before, and the year before. And chasing is a very defining criterion for this particular disorder.

Lying refers to the type of lying that pathological gamblers do not just to family members, but to friends, to therapists, to almost everybody to conceal their extent of their involvement in gambling.

Loss of control, again, refers to efforts that people make to try and cut back or stop gambling, but very often in the case of a pathological gambler they are not able to regain control over their gambling, and that is one of the diagnostic criteria.

We have found that pathological gamblers do very often commit illegal acts. Generally these are non-violent crimes, and they are engaged in, in order to get money, in order to finance gambling.

Risking significant relationships includes relationships with family and significant others, but also educational, and job, and career opportunities that are put at risk as the individual tries to get money to gamble, and tries to find ways to get time to gamble.

And, finally, bail out is a reliance on others to provide money to relieve the desperate financial situation, or situations that are caused by the gambling.

Those are the diagnostic criteria for pathological gambling. And in developing a screen for identifying people who have gambling difficulties in the general population, we were able to take those very clear criteria and turn them into a set of questions.

Have I clarified the diagnostic criteria sufficiently? Okay.

CHAIR JAMES: I think so.

DR. VOLBERG: We can move on to the next slide.

What we did was we were fortunate that there are now several DSM-IV screens that we were able to look at. When I first started in this field we had the DSM-III, and we had one screen that we were kind of stuck with using for a number of years.

With the publication of the DMS-IV, though, which is a much clearer set of criteria, we have been able to develop a number of screens in the field.

We selected an approach that we felt was probably most applicable for this particular use in a survey research setting. And what we did was we identified the items that we wanted to asses, that is the ten criteria, and we had to come up with a way to figure out how to ask those criteria in questions that would make sense to people that we were talking to on the telephone.

As I indicated we were able to -- or what we did was we took a standard epidemiological approach, we assessed both lifetime behavior and if that behavior had occurred in the past

year. And that is an approach that is standard across research on alcohol and substance abuse, as well as other kinds of disorders in the mental health field.

As I indicated, we were able to get tremendous assistance from the gambling treatment professionals in the United States, which enabled us to conduct a clinical validation of what we are calling the NODS, which is the NORC diagnostic screen for problem gambling.

We found that the NODS has excellent validity and good reliability. That the lifetime measures are somewhat more stable than the past year measures.

What this says is that we think the NODS performs very, very well, but that there is still further work to be done in examining what are called its psychometric properties, and rather than get into the nuts and bolts of developing a screen, I think we will leave it at that.

We think it is a good screen, we were very, very pleased to be able to get a clinical validation of it before we went into the full survey.

What we did was once we got the data back, we developed a five part typology. Now, there is five lifetime groups, and there is five past year groups, but they are all defined the same way, except that one refers to people who score on the lifetime measures, and one refers to individuals who score on the past year.

Group A, or type A, is a group of people who don’t gamble at all, who have never participated in any of the behaviors that we asked them about in the gambling involvement section of the questionnaire.

Group B are individuals who have gambled but have either never lost more than 100 dollars in a single day, or have lost more than 100 dollars, but reported no adverse effect.

And then we have our group C, D, and E. All of these individuals have lost more than 100 dollars in a single day, or over the past year, and report one or more adverse effects having to do with those ten criteria for pathological gambling.

Type C group, or type C respondents reported one or two adverse effects. Type D reported three or four adverse effects, and type E reported five or more adverse effects.

And Dean just pointed out, what we mean by adverse effects are things like trying to cut back but not succeeding in cutting back on their gambling, lying to family members and friends about how much money they had lost, having engaged in some kind of an illegal activity in order to finance their gambling, etcetera, etcetera.

All of those ten criteria that I spoke about earlier, people, small numbers of people acknowledge these various behaviors, and that was the basis for scoring them into these five groups.

CHAIR JAMES: So, for clarity, the adverse effects relate back to the criteria?

DR. VOLBERG: Yes, that is right.

CHAIR JAMES: Okay.

DR. VOLBERG: And these were the results when --

COMMISSIONER WILHELM: Excuse me, can I ask a question about that? Do you also have a manic exception?

DR. VOLBERG: We did include a manic screen in the questionnaire. As I recall there is some information further on

in the presentation about that particular -- about the correlation between gambling difficulties and the manic screen, also the screen for depression that we used.

These were the findings. As you can see, very small numbers of our respondents scored into the type D and E, slightly larger numbers scored into the type C, both lifetime and past year.

The bulk of our respondents, as we expected, fell into the B group, and you can see that about a third of the respondents, little more than third actually were past year type A. That is they had not gambled at all in the past year.

Now, if we look at the next slide, what we did was, you know, those prevalence numbers, or those distribution of people into -- or respondents into those groups doesn't tell you a whole lot. I mean, for the same reason that lifetime gambling participation rates don't tell you a whole lot. They give you one number, but there is a lot of differentiation once you start looking below the surface.

What we did in sort of a first cut, in looking at gambling problems among different demographic groups, was we looked at the proportion of groups such as men and women, who fell into our different types. So type A, type B, type C, type D, and type E.

What we found were that prevalence rates are not significantly different for men and women. And this was a bit of a surprise, it contrasts quite strongly with the 1975 study when about twice as many men as women were identified as having gambling difficulties.

It actually -- this finding that we have from the 1998 study confirms result that we've been seeing on the state-wide studies that I've been doing quite recently, for example, in Montana, where we found that about 50 percent of our problem and probable pathological gamblers, because we use a different screen in those state-wide studies, were about 50 percent women.

So we are starting to see more women who are getting into trouble with their gambling.

The prevalence rates of type D and type E are highest in the 1998 national survey amongst ethnic minorities, and amongst young adults. That is people aged 18 to 29.

CHAIR JAMES: Now, was that a difference from 1976, the prevalence rates among minorities and youth? Can you go back to that other slide?

DR. VOLBERG: My recollection is that in fact the group of people, or the group of individuals who were identified in 1975 as, they were called probable and potential compulsive gamblers were, the majority of them were between the ages of 45 and 64.

So we are seeing a shift, I think. Although the measurements are not at all comparable, but we are seeing more problems amongst young people than they identified in that study.

CHAIR JAMES: And what about minorities?

DR. VOLBERG: I think they did find elevated rates of the disorders as they identified them amongst minorities in 1975. I will have to go back and check that very carefully for you.

CHAIR JAMES: Thank you.

DR. VOLBERG: Well, here it is. In 1975 minority differences did exist, but they -- we did not see the

concentration among young adults that we found in 1998. We should have just gone to the next slide.

We also look at differences, regionally, throughout the United States, and we found that in the national survey, in 1998, prevalence rates appeared to be lowest in the north central region, that is the midwest. They seem to be higher in the northeast.

And, in fact, in 1975 higher rates were noted in the northeast, but also in the west. And we did not identify any substantial difference in the western part of the United States.

This is going to be -- let's see, this is going to be a little difficult to read, and what I want to make sure I do is make sure that I read from the report for you.

What this table shows you is the lifetime and past year involvement of the total sample. In column two you see the total sample, it starts with casino, 56 percent --

COMMISSIONER WILHELM: Does that include adolescents?

DR. VOLBERG: No, this is not the adolescents.

COMMISSIONER WILHELM: You are not using the word youth to mean adolescents?

DR. VOLBERG: That was a presentation format. We wanted to have a similar title across the top. These findings right now refer only to the 18 and over respondents, and I will be dealing in a few minutes with the 16 and 17 year olds.

What we found, if you look along the top row, we found that 56 percent of our respondents, and that is the total sample, had been to a casino; 26 percent, if you look across the total sample, had been to a casino in the past year.

In contrast, our type D and type E respondents, 93 percent of our type D, lifetime type D respondents had been to a casino at sometime in their lives; 72 percent of the type E, lifetime type E respondents.

Similarly, if you look across the row, the type D and type E past year respondents, 62 percent had been to a casino in the past year, and 58 percent had been to a casino, 58 percent of the type E.

So there are a lot of numbers on this table, but let me just summarize for you.

COMMISSIONER LEONE: Could I ask you a question that -- this is across the total sample, so these are not adjusted for, say, people who live in a state where there is no lottery, or people that live in a state where there is no so-called convenience gambling?

DR. VOLBERG: This is across the sample, yes.

COMMISSIONER LEONE: Do you have cross tabs that would enable you to look at that kind of question?

DR. VOLBERG: I'm sure we will. Please understand that this is pretty much a first cut at the data, and even as we speak we are generating cross tabs. And if there are specific items that you would like from us, you know, we very much would like to hear that, and we will pursue those vigorously.

Table -- this particular table, I think, shows that type D and type E, the lifetime respondents are substantially more likely, if you look down the rows, to have ever gambled in card rooms than the total sample.

And I bring that up because you can see that card room participation in the total sample is quite low, both for lifetime

and past year. But when you look across the rows at the type E and type D the participation rates are quite high.

And what I did was I looked at the ratio of type E and type D participation to the total sample, and that is how I sort of came up with the groups, or the levels of participation that seemed highest, vis a vis, what we might think of as the normal population for these type D and type E respondents.

Card room participation is much, much higher. Lifetime participation among type D and E respondents is about twice as high as the total sample for every other type of gambling except, interestingly, casinos, racetracks, and lotteries.

The picture is somewhat different when we consider past year participation by our past year type D and E respondents. Past year type D respondents, for example, are nine times more likely to have played bingo in the past year, than the total sample, and six times more likely to have gambled in a card room.

Past year type D respondents are about four times as likely as the total sample to have participated in charitable gambling events in the past year, and three times more likely to have gambled in a store, or at a racetrack.

Finally past year type D respondents are about twice as likely as the total sample to have gambled at a casino, on a private game of chance in the past year.

Turning to our --

COMMISSIONER MCCARTHY: Excuse me, before you leave that screen, just for my own clarity, the casino at the top, does that refer to non-tribal casinos; is that to be compared with the line at the bottom of Indian -p-

DR. GERSTEIN: The line at the bottom is actually included in casinos at the top. It is not an exclusive category.

COMMISSIONER MCCARTHY: Okay. So do you have a comparison of tribal versus non-tribal casinos in the RDD survey?

DR. GERSTEIN: We can generate it.

COMMISSIONER MCCARTHY: Thanks.

COMMISSIONER BIBLE: And unlicensed would mean illegal?

DR. VOLBERG: Generally yes.

DR. GERSTEIN: Mostly unlicensed is sports betting, sports betting that takes place without a license to run a sports pool, which is --

CHAIR JAMES: And that is called illegal?

DR. GERSTEIN: It is called unlicensed.

CHAIR JAMES: Is it called illegal?

DR. GERSTEIN: I haven't really researched all the jurisdictions.

COMMISSIONER BIBLE: It is probably not illegal unless you do it with a bookie. Among friends it is probably not.

DR. GERSTEIN: I really haven't researched the question of the legality of sports bets when they take place in private pools. I just know that we defined betting that didn't involve a licensed operator, and that most of the specifics, when we asked people about that, turned out to be betting on sports.

COMMISSIONER WILHELM: Can I ask you a question about the card room issue that you highlighted? It seems, just sort of a matter of initial logic, that as you point out the result of lifetime versus past years, specially for the type Es seems a little bit odd.

DR. GERSTEIN: -- bumping up against the limits of sample size when you look at past year.

COMMISSIONER WILHELM: Well, that is what I was going to ask. Are you -- obviously card rooms are a relatively small proportion of the gambling opportunities that are available.

Are you satisfied that the sample that you have for card rooms is sufficient to make a valid comparison here?

DR. GERSTEIN: I think it is valid for some of the comparisons, but when you look at the past year cardroom players, the base of numbers becomes so small that when you look at the subgroups of those who are classified in type D and E they are simply too small to have reliable -- to have stable numbers.

We have run a set of statistical measures that indicate when numbers are reliable, and they are not. We haven't had time to go through every number that we presented here, and exclude or asterisked, or otherwise marked the few of them.

And there are a few of them, occasionally, in a table here and there, that we would in essence suppress as unreliable, because the base of numbers was too small, and this is one that I think we would end up having to say we just can't asses, we can't tell what the number really is in some of the instances.

COMMISSIONER WILHELM: I suspected as much, and I would hope that the interest of accuracy that, not to mention fairness, that you would -- if indeed that is an invalid number, that you both get rid of it, and also in your written report you kind of highlight card rooms, it seems odd to me if the number is invalid.

So I would hope you would keep us posted on that. I have one other question which pertains --

CHAIR JAMES: Before you leave that --

COMMISSIONER BIBLE: And before you leave the cardroom question, as I recollect, only California has legal cardrooms?

DR. VOLBERG: No, that is not quite true. Montana also has legal cardrooms, I believe Washington has cardrooms. There are a number of states that do have legal cardrooms.

COMMISSIONER BIBLE: But if the respondent says that they are gambling in cardrooms, and they are gambling fairly frequently, can you then do a cross tab as to where they are responding from, you know, if they are calling from Iowa, or you called them in Nebraska, and break them down?

DR. VOLBERG: Yes. On the other hand they might be an individual who, you know, is from Idaho and went over to Washington to visit a cardroom.

COMMISSIONER BIBLE: Was the question phrased in such a manner that it would imply that the cardroom activity was legal?

DR. GERSTEIN: Well, the module that asked about cardroom behavior does ask people how far they traveled. And we also asked people, at the time that we make the phone call and speak with them --

COMMISSIONER BIBLE: Because when I went to college the guys next door in the dorm had a cardroom. They had a table in there, and everybody went and played cards.

DR. GERSTEIN: Here the definition of the cardroom was a licensed, as opposed to a non-licensed facility.

The category here called private, for the most part, is people playing cards in private settings. Most of the activity, I think, that you would think of as the friendly neighborhood poker game would fall here under that row called private.

COMMISSIONER LEONE: Excuse me, did you -- that was the number that surprised me, actually, the 31 percent for private. But I don't actually have the -- I didn't look at the question, so I'm not sure.

But your impression is that the overwhelming majority of the people who answered yes to that question were talking about playing cards?

DR. GERSTEIN: Well, as opposed to -- impression in the sense that we asked them specifically what game we are talking about.

COMMISSIONER LEONE: Yes, that is what I mean, yes. So this, and then people who play football pools would have answered another question yes?

DR. GERSTEIN: That is unlicensed -- I mean, as we define these categories, and I recognize, you understand --

COMMISSIONER LEONE: That is what I thought you said earlier and --

DR. GERSTEIN: -- shorthand.

COMMISSIONER LEONE: -- again, with no base of knowledge, it was a little surprising to me that more people play in a cardgame for money than play in an office sports pool.

DR. GERSTEIN: That is research for you.

COMMISSIONER LEONE: Yes, that is research.

CHAIR JAMES: Commissioner Wilhelm?

COMMISSIONER WILHELM: I have a question, but before I ask it, I just want to -- for those who may assume that MR. Bible's college cardroom was in the state of Nevada, I just want to point out he went to Stanford.

Just for my own understanding, this is not on this particular chart, I'm somewhat -- I have a lack of clarity in my own mind about the relationship between lifetime and past year.

And I'm struck by the fact, going back to your prevalence rate chart, that with respect to types C, D, and E, the lifetime prevalence rate is significantly higher than the past year prevalence rate.

So I would appreciate it if you could sort of enlighten me on what the relationship between the two is. Just as one example, I can't quite believe this would be true, but one I suppose could infer from those ratios, just talking about D and E, that a significant proportion of the people who have had a problem gambling in their lifetime no longer have it because they didn't gamble in the last year.

Now, I don't know if that makes any sense. But could you kind of try to clarify for me what is the relationship between a finding of a problem gambling in a person's lifetime, as distinguished from last year?

DR. GERSTEIN: I will defer to Rachel. But I think the point here is that we have defined these categories in terms that basically say, did this occur to you at all in your lifetime, and then did it occur in the past year. That is the precise order of questions.

And in defining the types that we've, you know, left defined simply in terms of the words we have given you, because the label one might want to describe the type with is something that I think the Commission has to grapple with.

The fact is the way in which these criteria were developed, they were developed to describe a long-term, a chronic

kind of behavior. And the assumption was that you would accumulate sort of passing grades on individual criteria over the course of years.

So when you look at someone who says, in my lifetime yes, I have lied, cheated, stolen, destroyed various relationships, and there are six different criteria that have occurred.

And then you look at the same person and say, well let's just talk about the past year, how many of these occurred in the past year? And the person says, well, I've lied and I've cheated, but I haven't done all the other things.

In one respect what you are saying is, well the person's problems have diminished. But it isn't clear to me that the yardstick you would want to measure in terms of the amount of trouble you can put together in a year of living is necessarily a perfect gauge.

It may well be that someone who, in their life, in any given year, only would have been able to say yes in the past year, one or two of these. But when you ask in your lifetime they would say, yes I would have to testify to five or six.

That person may, in the past year, since 12 months before the interview again say, well only one or two.

It isn't, therefore, clear to me in these data, one would have to generate really a more detailed life history in order to be sure. You could have someone behaving exactly the same way year after year, who would nevertheless give you a different report in terms of the number of adverse events that had occurred in their lifetime, in contrast to the number of adverse events that happened in the past year.

And yet there could be no change in behavior. You are simply in one case adding up across a large span of time, and in the other across a small span of time.

COMMISSIONER BIBLE: Just so I understand it, if you go to page 23 of your report, and you look at the people that answered, or responded affirmatively to five of the criteria, and you are showing three tenths of one percent as lifetime, and six tenths of one percent as past year, is there something wrong there? Shouldn't all six tenths have responded affirmatively that they had a lifetime problem?

DR. GERSTEIN: Well, these are referring to the number of different problems people affirmed. So what you see is that over the lifetime people affirm as high as ten, and there are quite a few people who are affirming pretty substantially more than five.

But when you ask just about the past year, fewer people are affirming the very large numbers.

COMMISSIONER BIBLE: I'm just looking at the line for five.

DR. GERSTEIN: Right. What it says is, if you look at the people who in a lifetime are saying, five, six, seven, eight, nine, ten, it is among people who said six, seven, eight, nine, ten.

When you ask them about the past year, they don't count up six, seven, eight, nine, ten, but clearly someone there is getting to five, one or two people there, a weighted number are getting to five.

I mean, I hate to create metaphors here, but if you ask, I'm just going to refrain from counting anything. But you

see, I mean, the point I'm making here is simply that in one case you are asking about your entire life, what have you done during your entire life, and in another case we are just asking about what you have done in the past year.

Necessarily the things you have done in the past year have to be a fraction of what you've done in your life. And yet if we were able to look at this past year, and the one year before that, and the one year before that, and look at individual years, you could have been doing the same thing for 20 years, and you have different scores on these two criteria, on these two measures.

COMMISSIONER WILHELM: I apologize if it seems like I'm belaboring this point, but I'm just trying to get my arms around it.

Compare it, and you might say, look that is a ridiculous comparison. But in my mind I often compare this problem, gambling problem, to alcohol problems. I'm an alcoholic, but I haven't had a drink in 21 years. Now, I would be a lifetime alcoholic, I wouldn't be a past year problem drinker.

So I guess what I'm trying to ask you is, in your opinion, shouldn't one infer from the significantly lower type E rates as compared to -- I'm sorry, should one infer from the significantly lower past year rates for D and E as compared to the lifetime rates, should one infer, or should one refrain from inferring, in your opinion, that there is a significant number of people out there who have had this problem at some point in their past, but don't have it currently?

Or is that an invalid inference?

DR. GERSTEIN: I think one can assume, but not based on these numbers, that there are individuals who used to gamble in ways that are much more dangerous, and no longer do.

But these numbers don't really provide you with a good framework, a good quantitative comparison between those two groups. This research can't tell you how large a proportion of the lifetime alcoholics are now in recovery.

COMMISSIONER WILHELM: So can you explain to us what the objective is of presenting these two particular numbers, what is the objective of presenting lifetime, what is the objective of presenting past year?

DR. GERSTEIN: Lifetime is the basic nature of the diagnostic entity. That is, the category pathological gambler, the most of what people refer to as problem gamblers is thought of as chronic, is thought of as something that can be measured across a period of years.

DR. VOLBERG: And progressive as well. The diagnostic or the description that is included in the DSM clearly states that pathological gambling is a progressive and chronic disorder. So it builds up over a lifetime.

COMMISSIONER WILHELM: That is what I would have thought. I accept your expertise, but I just, personally, I'm puzzled by why the past year figures wouldn't be higher in relation to the lifetime figures.

DR. GERSTEIN: They are not higher.

COMMISSIONER WILHELM: I said I'm puzzled why they wouldn't be.

DR. VOLBERG: Why the past year rates would not be higher?

COMMISSIONER WILHELM: Higher than what they are in relation to the lifetime, just because it is it is progressive. I'm not trying to spend the whole day on this, I'm just puzzled.

DR. GERSTEIN: I will just point to one measure because it is an area that I have looked at. If you look at people who are chronic drunk drivers, the rate of arrest for episodes of drunk driving, in a jurisdiction that enforces its DWI laws aggressively is probably one episode in 500.

So someone who drives intoxicated virtually every day won't be arrested more than once every year or two, unless literally the police have gotten to know them.

Someone, therefore, who is asked, in your lifetime how many drunk driving arrests have you -- how many times have you been arrested for DWI might say four or five. If you ask in the past year, there might be none, despite the fact that the behavior hasn't changed.

The purpose of trying to look at past year behavior is, in a sense, the step toward developing a more detailed natural history of the behavior over time. It is also pretty much a standard in the development of trying to be more precise about the relationship between psychiatric diagnoses and the behaviors that they measure to begin blocking out periods of time, starting with past year, and comparing that to lifetime.

And that is really why we included this measure.

COMMISSIONER WILHELM: Okay, that answer makes me even more confused, because we are not talking about arrests here. If you ask that same person, and they were being honest, how many times have you engaged in drunk driving in the past year as

opposed to have been arrested for it, they probably would say they have been doing it.

DR. GERSTEIN: But if you look at -- I mean, these behaviors that we are trying to define here are, in some respects, like either one of those two, because they reflect in a diverse consequence.

For most people who drive drunk the adverse consequence is the arrest or the accident which happens rarely relative to the overall numbers. So that the question here in the diagnostic screen is not how many times did you lose money, or how much did you lose, but did you have to get bailed out of a desperate financial situation because of money you lost while gambling.

It is, in that sense, much closer to the arrest, it is a much tighter criterion.

CHAIR JAMES: As a point of personal privilege the Chair is going to call for a break right now. We are, I think, this is probably at the end of this discussion a good point to do that.

We will continue this, and with the NORC presentation all the way up to lunch, so we have a good deal more time in order to delve into these matters.

With that I would like to stand in recess for about 15 minutes. Thank you.

CHAIR JAMES: Dr. Volberg, I'm going to ask that you go ahead and continue with your presentation, and if you don't mind, we will -- the conversation seems to be free-flowing, and the questions are good, and so with that in mind we will continue with that particular format.

DR. VOLBERG: Rather than just having a --

CHAIR JAMES: Right.

DR. VOLBERG: I think we ended up sort of talking about the past year, or the difference between the past year and lifetime issues.

CHAIR JAMES: That's correct.

DR. VOLBERG: And I think I had spoken, I mean, we didn't have up there the actual slide, or the overhead that dealt with that. We had actually spent the whole time that we were discussing it looking at another slide, which I had summarized, and then we had sort of backtracked.

CHAIR JAMES: Let me say this, it has been very helpful to us to be able to interject with questions as needed. But if you think it would be more helpful to you to make it through the entire presentation before questions, I'm certainly open to that.

DR. GERSTEIN: I guess just in view of the time, and the interest in the community, the economic analysis and the like, we ought to at least try to conclude this section.

CHAIR JAMES: Let's let you get all the way through, and I'm going to ask Commissioners to allow them to do that, and save our questions for the -- thank you, with that, please go right ahead.

DR. VOLBERG: Okay. As you are probably aware, we had a very lengthy questionnaire that we used to interview our respondents in both the adult sample and the youth sample.

Two of the components that were particularly important in terms of the overlap -- I'm sorry, three of the unit components, in terms of the overlap between gambling related difficulties and other psychiatric disorders, and addictions that

we know from clinical research, people with gambling difficulties are more likely to have.

And we wanted to see what the overlap was when we looked in this sample from the general population. And, in fact, we did find -- we asked all of the respondents -- was it all of the respondents were asked the health questions?

We asked all of the respondents to answer some questions about their physical and emotional health, and this was sort of a way to try and get at how type D and E gamblers do vis a vis the rest of the population.

And we found that type E gamblers, both lifetime and past year, were more likely than most other respondents to describe their general health as poor, rather than as fair or as good.

They were more likely than other respondents to have sought help, professional help for mental or emotional health problems, and they were more likely than others in the sample to acknowledge concerns about their mental health.

And all of these speak to the fact, I think, that these are individuals who are troubled along a number of different dimensions, pathological gambling, you know, being sort of the set of criteria that we held them up against.

We did look, specifically, at the use of alcohol and other illicit drugs, including marijuana, cocaine, and non-prescribed stimulants and tranquilizers. And not much to our surprise we found that lifetime and past year type D and E and respondents were more likely than others to have consumed alcohol at least one or two days a month in the past twelve months, and that would have been the first question to move the respondent

into a series of questions about their alcohol use, and about alcohol problems that we actually have not had time to investigate in detail.

We also found that lifetime and past year type E respondents were substantially more likely than others to have used illicit drugs. I believe the cutoff was five days in the past twelve months. So it is a standard cut for beginning to look at substance abuse, and alcohol abuse amongst these respondents.

This is as far as we've gotten with this particular piece of analysis, and I just want to let you know that we are going to be pursuing this over the next few weeks as we move towards a more substantial report for you.

Turning now to the youth, we were tasked to examine gambling and gambling difficulties amongst 16 and 17 year olds, and we used a -- well, let me just back up. We were successful at interviewing 534 young people aged 16 and 17.

We used two separate sampling methods to get at these young people. One was an RDD sample, and you will see in the report that it is very difficult to find substantial numbers of people in a certain age category when you randomly call households and screen for individuals, only about 7 percent, at the most, of all households have an individual in that household aged 16 or 17.

And so if you think of making 1,000 phone calls, only 70 of those would even have a person who would qualify for your study. That is a lot of phone calls to make just to find those individuals.

So we used a second sampling strategy, which I actually have used in all four of the adolescent surveys with 13 to 17 year olds that I have done at the state level, and that was to use an enriched list of telephone numbers.

Those lists are put together by very large companies that specialize in selling lists of telephone numbers to people like NORC. I believe Survey Sampling Incorporated was the organization involved.

And the telephone -- the enriched telephone list had a much higher proportion of numbers which turned out to be households that included an individual in the age range in which we were interested.

So this was a much more cost effective way to get people involved who actually met the criteria for the sample.

We obtained both consent from the parent, we spoke with the parent first and got them to agree to let us interview their teenager, and then we got the consent of the 16 or 17 year old that we wanted to actually give the questionnaire to.

Because of the nature of the enriched telephone lists, we did have an over-representation of youth from the north central or midwest region, and some under-representation of black and hispanic youth. And that is typical of what you find, at least the ethnicity issues are typical of what we found with using enriched lists in other surveys of adolescents.

And those under and over representations were corrected through statistical procedures after the data were already in our hands.

So we are talking about a sample that has been weighted through statistical means to reflect 16 and 17 year olds in the United States in general.

And just very briefly, these were some of the results. We found that youth do gamble less than adults, but they have very distinct patterns of participation. Their gambling is predominantly private betting on games of skill, and specially on card games.

This won't surprise any of you who have 17 year olds in your households. Youth also gamble in sports pools and they are apparently quite easily able to purchase lottery tickets. They appear to prefer instant or scratch tickets to the lotto or the jackpot games and the daily games.

And finally, not too surprisingly, given their access to disposable income, 16 and 17 year olds wager much smaller amounts of money than adults.

Now, when we took a look at the NODs, the results of the NODs for the 16 and 17 year olds we used the same, initially, the same cutoff criterion that we used for the adults. That is the 16 or 17 year old had to have lost at least 100 dollars in a single day, or over the past year.

When we used that criterion about 1.5 percent of the 16 and 17 year olds were classified as type D, or type E gamblers. When we took that screen off, when we dropped that criterion, because it is a relatively high criterion for a young person to have access to 100 dollars, when we did not use that criterion about 3 percent of the 16 and 17 year olds were classified as type D or type E gamblers.

DR. GERSTEIN: Just as a reference, for adults it is about 2 percent, so depending on whether you use the same measuring rod for adults as you use for the 16 and 17 year olds, less of them who turn out to reflect the problem level that is at the upper end, which is all that we've had, really, time to look at in detail today.

DR. VOLBERG: And I would just like to add that this is probably the first time, or at least it is the first time that I'm aware of where we have had this opportunity to exactly match the youth and the adult data.

In the youth studies that have been done up to this time, we have actually not used the same set of questions to assess gambling problems among youth, because we felt that -- specially for kids younger than 16, some of those questions were not terribly appropriate.

But I think we do have an opportunity here, and we will be pursuing it over the next few weeks, to really be able to look at this, you know, adolescent to young adult, and over through the life course in terms of gambling and gambling involvement.

And I'm going to turn it over now to Dean to deal with the economic and social impact analysis.

DR. GERSTEIN: Thank you. I'm going to run through these points in a way that I think summarizes them, again, trying to bring a fairly complex analysis down to a few headlines, and that is the case, both for the economic analysis, and for the discussion of the statistical analysis of community data base, as well as the case studies.

The basic strategy in this economic analysis is one that has been used over the past 20 years or so for looking at

consequences of other kinds of behavior that are in the same general league as gambling problems. That is, there have been estimates of the costs on a national and on a personal individual basis of substance abuse and mental health, going back the first one that I'm familiar with was done in 1980.

Subsequent ones have been done roughly every five years, and these have been published by the Substance Abuse and Mental Health Administration and the Department of Health and Human Services at the federal level. Various states have implemented similar estimates.

The methodology used here, therefore, is a fairly standard one in attempting to look at behavioral disorders. I should note that the fundamental model originally is based on attempts to measure the cost of cancer, or the cost of diabetes.

It has also been applied, though, to the cost of motor vehicle accidents. So it is a sort of an evolving methodology that has been fairly standardized and that is what is applied here. This wasn't something that were ginned up for the occasion, but has been done before.

The group that developed these, the Lewin Group, and in particular Rick Harwood, has done the national estimates for substance abuse and mental health three of the last four times under contracts to the federal government.

The basic strategy that we took here in making a very quick assessment, and I should emphasize that with these data presented in this section, as in all the other, that we have not had these data completed for very long.

The first data sets that we were really done with, we were done with roughly the middle of December, that is collecting

and assembling. The last data sets we were done with in that sense, we collected the last patron survey interviews on January 14th, I believe.

So in many respects we have moved rather quickly to try and organize these. Here the basic strategy has been to compare the gambling types, A through E, with each other, and to estimate the correlated costs, or the consequences as we say, for persons of each of the five gambling types.

And we had had a discussion previously about how this analysis would run. And one of the things we agreed to do, and in part this reflects the fact that the data we used are of two sorts, and how they would be weighted to get national aggregates isn't entirely obvious until one has gone much further with them.

So we focus on cost at the level of the cost per person. We have not done as many cost of illness and burden of problem estimates, we have not added this up and said, for all U.S. gamblers of any particular sort, or all of them combined there is a certain cost associated with this.

I should note, with regard to the costs, that there are really sort of -- there are two kinds of costs that one can count up. Some that one can refer to as annualizable. That is, one can say, this costs a certain amount on a regular basis year after year.

Others are difficult to do that way, and instead it is easiest to say this has a lifetime cost. I recognize, based on earlier conversations, that the fact that some things you can combine readily, and others you can't, is just a consequence of the analytic approach.

DR. VOLBERG: Do you want to give them a couple of examples of what would be an annualized cost?

DR. GERSTEIN: I will.

DR. VOLBERG: Okay.

DR. GERSTEIN: The data that we used here combined both of the random digit dial telephone survey, and the patron survey. The principal reason for doing that is that the patron survey as anticipated, and indeed the principal reason why we collected those data to begin with, provided us a substantially larger number of individuals at the upper end of our typology in types E and type D, and also in fact type C, that enabled us to be able to make these comparisons of groups with groups that were fairly large, because the statistical requirements here, you are not just measuring the percentage of a group that is X, but rather comparing lots of characteristics of individuals, you have to have enough of them.

But this is also why sort of a priori you can't simply measure up and take these numbers and multiply them, because they don't necessarily weight to the population as readily as just the random digit alone can be weighted.

I'm always hesitant to label a slide multiple regression because it is greek to most people. Nonetheless, what this table reflects is the result of trying to determine if you control for, that is if you net out the relationships between what are referred to here in the first column as correlates, and all of the types.

And I have condensed here a table which actually runs from type a through type E, and I have just included the two

ends, that is type A, those who never gamble, and type E those who are the highest level of problems.

If you net out what you would expect based on other kinds of correlates, namely demographic correlates and substance use, which correlate very highly with all of these, these are the differences in the prevalence of the correlate in the type.

In other words, the way you read this table is that among people who are in type A, 23 percent of them report divorce, controlling for demographic and substance use, which themselves would give you some variation.

By the same token, in type E, 51 percent of them report divorce. That is how you read this table.

The cost period doesn't actually refer to what is in the table itself, but it refers to when costs are calculated. That is, what is the cost of divorce. It is calculated as a lifetime cost. Poor health is much more readily calculable as an annual cost.

In principal, of course, you could take the annual cost and multiply it by the numbers of years of life and turn it into an annual, that is into a lifetime. But, in fact, it is a more precise measure, so when we can use it, we do.

Mental problems, that is people who report concern about their emotional and mental health, again, is an annual. And, again, the contrast here is that in each case, and I will just make the further point here, that all of these have been measured for their statistical significance, the extent to which these would not occur at random, they are all highly significant.

In each case what we see is that people in type E, relative to type A, are reporting substantially higher rates of

these problems, of bankruptcy, divorce, poor health or mental health, having lost a job, having been incarcerated, having been arrested.

And I should add, because there is an underlying table here that is in the oversight, from which this is really just an extract, that there are other categories in which there were no differences between type A and type E.

But what we wanted to focus on here, in looking at costs, at correlates of gambling problems, is precisely the areas in which there are differences, net of the effect that the fact differ in some ways in their demographic and substance abuse.

All of these are, in fact, pretty substantial, and they do tell us, sort of using a different set of data, because all of these are direct questions about these items, in contrast to the items on the NODs, all of which are a whole different set of items.

But these confirm, in a sense, what the items on the NODs are telling us, that when you look at type E you are looking at a group which has substantially elevated sets of problems.

But these problems are identified whether or not the individual said that is because of gambling. I should stress that, because it is an important point. The extent to which individuals attribute a problem in their life, other than gambling, to gambling, is lower than the extent to which we find that there is a correspondence between these two things. I should just make that point.

Let me go on to the cost estimate which is the next slide, next overhead. Using methods which both use data that are here, and use data that come from national comparisons in other

kinds of data sets, for example comparisons of people who are in poor health, and their medical costs, were not something that is in our questionnaire.

But the item that asks people about their generalized health is in other questionnaires, which go into great detail in determining what people's medical expenditures are.

We used that correspondence between items in this questionnaire and other data sets to estimate these cost differences. And, again, this is the way the methodology is worked.

Based on this, the annual costs, that is in those categories which are noted here, for which costs on an annual basis are calculable, that is mental and physical health, loss of a job, and unemployment, and these are somewhat different things because you can lose a job during a period and, of course, by consequence then you will be unemployed.

However, you can also have a period during which you didn't lose a job because you didn't have one at the beginning of the period, and be unemployed during the period.

So these are somewhat different measures that, of course, get at the same underlying here.

The estimate is that the annual costs associated with these, for each type D gambler, which means the extent to which the type D gamblers cost on these measures, exceed those of the population in general, are about 800 dollars a person.

For the type E gambler that estimate is about 2,200 dollars a person. And let me emphasize, because it is important here to make the point, when I say estimates we have not

completed development of what sort of range of values this could be.

As always, when you make statistical estimates from a sample to sort of everybody who might be like that, there is some range of variability.

But these are all significantly different, these are all significant number in the sense that it is clearly not zero. This is the midpoint of the range of the estimate, and exactly how wide that range is will simply have, by the time we are done with this analysis, and have it completed.

The type E gambler, as you can see, the cost estimate for the additional cost that a person who is a type E gambler generates is about 2,200 dollars.

And the note to be made here of that 2,200, is that the gambler himself, or herself, is actually paying about a third of that cost. Other people are paying the rest, society at large through its tax mechanisms, and other mechanisms such as paying for, employers paying for the cost of recruiting people when they've had to fire somebody, and they sort of socialize cost of paying for medical care through insurance.

The estimated lifetime cost for the kinds of phenomena which we measure on a lifetime basis, rather than annual, and those are divorce, arrest, bankruptcy, these are different kinds of phenomenon.

And because the incidences of these are somewhat different, we combine the two groups, the type D and E, there didn't appear to be any real difference between these figures for the two groups, and it makes the analysis more powerful to have a big combined group, the number are larger.

Just to make the lifetime cost of these sort of excess of these correlated problems in the type D and E gambler group, runs about 8,800 dollars.

And on this basis, again, the gambler is absorbing something like a third, not exactly a third, a little more. But the gambler is paying 3,300 dollars, and everybody else is paying the rest.

And then just to repeat the point I made earlier, that despite these measurably higher rates of these consequences, or these correlates, the gamblers rarely directly attribute these problems to their gambling.

When you say, you were divorced, was that because of your gambling, they don't often say yes it was. We haven't actually made a comparison directly between the relatively small numbers who say yes, it was because of my gambling, and these attributable costs. This is kind of a caveat about these.

The fact that people report much higher rates of problems but don't attribute a cause, doesn't necessarily mean the cause wasn't there, but life works in complex ways. This is simply what the results are that we got.

This is the end of my discussion about the economic consequence section. I can move on to the community data base, or stop here.