ARE THERE REALLY ANY GAY MALE ATHLETES? AN EMPIRICAL SURVEY

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Paper presented at Society for the Scientific Study of Sex Convention San Diego, California June, 1976

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ABSTRACT

After a pilot study of two male teams at two different universities suggested that some athletes apparently had participated in homosexual activities which they would reliably answer questions about, the researchers surveyed three additional teams at three other universities. The data indicated that a fairly substantial minority of collegiate male athletes had engaged in gay actions. The results did not appear to be due to sample bias, ambiguity in defining what is "gay," deception, or other artifacts.

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During the autumn of 1975, many American newspapers ran a syndicated series of articles written by Lynn Rosellini, a reporter for the <u>Washington</u>

<u>Star.</u> In this series, Ms. Rosellini claimed that many professional athletes were either gay or bisexual. Furthermore, the author contended, there were starting quarterbacks for professional football teams who were either completely or primarily homosexual.

Sports fans across America gasped when they read these articles. Irate letters denouncing Ms. Rosellini began to inundate newspaper offices. How could she imply that any red-blooded American boy could be "queer"?

Then, in November of 1975, Dave Kopay, an ex-running back for the Washington Redskins came out of the closet and admitted that he was, indeed, gay. Furthermore, he claimed, there were others like him who were afraid to admit their sexual identity for fear that prejudiced members of society would launch an all-out hate campaign against them. Some sports fans angrily replied that Kopay was lying for the sake of publicity.

Shortly before this controversy began burning through the sports pages, the present researchers had been planning to do a survey of sexual practices and attitudes of university-level male athletes. We were going to ask a representative

^{1.} Behavior Today, January 12, 1976

sample of this population about their performance, and feelings about, twenty different sexual acts.

Since we were in the initial stages of our college athlete research design during the furious debate, we decided to make homosexuality one of the major focuses of our own study. The sports fans then hurling outraged accusations and denials at each other seemed to be basing their tirades more on conjecture than on scientific observation, and we thought that modifying our research might throw a little more light, and a little less heat, on the discussion. (Although our survey was going to pertain to male university athletes, rather than to both male and female professionals, we thought that using homosexuality as one focus of our study would still present some data -- either pro or con -- which would make future dialogues more realistic and less emotional.) The work described in this paper was the gay focus of our study. We are still analyzing data pertaining to the non-gay aspects of the survey.

In early pilot interviews with college male athletes, we had heard a rumor that a considerable amount of homosexual activity occurred among members of a particular team at one particular school that was within driving distance of our own university. This homosexuality allegedly went on NOT during team practices or in school facilities, but in private during off-hours. The sport was a team one, recognized by the NCAA, and the university was a large one. Since we were not at all sure that the rumors were accurate, but we didn't know where else to begin, we decided to start our project by trying to check out the gossip.

Our major problem was to get the athletes to answer candidly if they had, in fact, participated in gay activities. Because of the furious backlash which

Ms. Rossellini's newspaper articles had received, and which Dave Kopay got when he admitted his homosexuality, we thought we ought to be EXTREMELY discrete in the way we worked with the athletes. We carefully approached the team involved in our pilot work. On the basis of some trial-and-error attempts to get a couple of individuals to answer questions, we came up with the following procedures: First, we got a member of the team to gather our data, because some of the rumored individuals seemed afraid to talk to outsiders. The athlete interviewer would give us the results, but not the names of the respondents. Second, we promised not to reveal the name of either the sport or the school after we learned that one or two respondents purportedly had misgivings about harming their team-mates by their disclosures. Finally, we learned that we could get more cooperation from the subjects by giving them a short and simple paper and pencil questionnaire which they could fill out anonymously. In the questionnaire, the subjects merely put a check mark next to any of 20 listed sex acts which they had performed at least twice to the point of orgasm in the last two years. If they had not done an act, they were to put either a Y if yes, they would do so if given a chance, or N if no, they wouldn't, or a question mark if not sure. Of these 20 acts, 6 were homosexual, and 14 were not. 2 This short questionnaire prevented us from getting the type of in-depth data that a face-to-face interview would provide, and which a long questionnaire would give, but it did insure, we discovered, that most of the athletes would cooperate.

The six homosexual acts were: 1. mutual masturbation with another male,
 sex with two males, 3. oral sex inserting into another male,
 inserting anally into a male, and 6. receiving anal insertion from another male.

After tracking down all the male athletes we heard rumors about, we found we had heard gossip about 35 men, of whom a total of 25 were willing to fill out questionnaires. In order to verify the reliability of the data, we had a second team-mate give the questionnaire to ten of the subjects a week later. The subjects did not expect to fill out the test form a second time, and the second athlete interviewer got his list of names from the first interviewer in such a way that the second questionnaire from each subject could be matched with the first questionnaire without either interviewer knowing what was on the first questionnaire, and without the subject seeing his own earlier answers. The results were quite reliable: the second questionnaire agreed with the first ones in over 99% of the items, a result which is significant beyond the .001 level by the binomial test.

The responses to this initial study were rather startling: of the 25 athletes who filled out the questionnaire, 100% admitted private masturbation, 64% admitted masturbating with another male, 60% admitted having been fellated by another male, 48% had fellated a penis, 20% had inserted anally into another male, and another 20% had been a recipient of anal insertion. All of these acts were performed at least twice, to the point of orgasm, in the last two years.

Let us now compare these admitted gay acts with heterosexual behaviors the athletes also admitted engaging in: While 64% admitted masturbating with another male, only 12% admitted masturbating with a female. While 60% has inserted their penis into a male's mouth, only 48% had done so in a woman's mouth. Twenty percent inserted into a male anus, and only 4% into a female anus. Forty-eight percent had fellated a male, and only 40% had performed cunnilingus. (The full range of acts, and their relative frequencies, are given in Table 1.) However, not all

of the athletes were gay or bisexual: Of those who denied engaging in the homosexual acts, the majority said they would not engage in them in the future if given a chance (Please see Table 1). Thus, it seemed that the rumors were true of most, but by no means all, of the sports figures.

We next asked our athlete interviewers to give the questionnaires to the remaining athletes on the team about whom we had not heard any rumors. Seventeen of them answered. Again, we were surprised by the results. Over 40 percent admitted having masturbated with another male, an equal percentage had fellated a penis, slightly less than 30% had been fellated by another male, over 17 and 1/2 percent had been anal insertors, and over 11% had been anal insertees with other men. However, their heterosexual activities had been somewhat higher: Seventy-six percent had had coitus, another 76% had inserted into a female's mouth and 64.7% had performed lambitus, and so on. (The complete data are summarized in Table 2.) Thus heterosexuality was more prevalent among the non-rumored athletes than was homosexuality.

Of course, we had heard rumors about other schools and other sports, so we decided to try to give our questionnaire elsewhere. We selected another university (rather far from ours, this time) about whom there were rumors, and were able to get a member of one team to administer the survey to his buddies. However, this time we got much less cooperation: He asked only twelve athletes, and only eight of them returned the questionnaire. For whatever it is worth, here are some results: of the eight, four admitted masturbating with another male, six fellated another man, five had been fellated, and two had inserted in a male rectum at least twice in the last two years. However, their heterosexual

acts were also common: five had had coitus with a female, three had inserted into a woman's mouth, four had performed cunnilingus, although none had had anal sex with a female. (All data are presented in Table 3.)

We decided to stop checking up on rumors at this point, and to reconceptualize our research strategy. Since the purpose of these original surveys had been to find out if the phenomenon of homosexuality among athletes existed or not, rather than how prevalent it was in the total population of all male athletes, we had gone to these particular teams precisely because we had heard the rumors. Therefore these teams can NOT be used as a representative sample of male college athletes, and we do NOT wish to imply that our results can be generalized. However, our curiosity was certainly aroused about how prevalent it might be, so we decided to repeat our survey at three additional schools about whom we knew nothing. (The universities were again chosen because they were within driving distance of our own.) Again, the schools were large ones, and the sport was NCAA approved, and again a male athlete administered the questionnaires.

This time, however, the same male athlete was used as an interviewer at all three places. He was from our own school, because we had found that it took inordinate amounts of time to get interviewers from the teams involved. We selected this particular athlete to be our interviewer because he had excellent references for honesty and hard work.

Our interviewer got his data in the following way: he drove to each university, and introduced himself to the coach of each team at the beginning of a team practice, and explained that he was doing a research project at our school on the sexual attitudes of athletes from different universities. He

promised the coach that neither the coach's school nor the sport would be identified in the final results. He then asked the coach to give out the questionnaires to the team at the start of their workout.

He gave the coach a ballot box, and asked him to have each athlete drop the questionnaire into the box after the athlete had anonymously completed the questionnaire. In about 15 minutes, our interviewer returned to pick up the ballot box. At no time did our interviewer tell the coach or any member of the team what the purpose of the study was.

After our athlete interviewer gave us the results from the three schools, we did a preliminary analysis and found there was no significant or nearly significant differences among them in the data they gave. Therefore, we pooled the data from all three schools into a single, large sample.

Our interviewer, through the three coaches, had contacted a total of 111 men, of whom 82 filled out the questionnaire. This time, the homosexual activity was still surprisingly high: Slightly more than 40% of the men from the three universities who had filled out the questionnaire admitted to having performed some kind of gay act at least twice to the point of orgasm in the last two years. (Data are rounded off to the nearest percentage. Please see Tables 4 & 5 for percentages correct to two decimal places.) We calculated a 99% confidence interval on this 40% result and found that, given that 40% of our particular sample had responded in this way, it was extremely probable that somewhere between 26% and 54% of the total population of all college athletes in this team sport had engaged in homosexuality at least twice in the last two years! Frankly, we were surprised.³

^{3.} See page 8 for footnote 3.

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^{3.} For readers unfamiliar with "99% confidence interval": This is a mathematical technique for generalizing from a sample (such as our 82 athletes) to an entire population (such as all college athletes who play that sport), with less than I chance in 100 of being in error when making the generalization. The highest and lowest values in the generalization (such as our 54% and 26% who had practised homosexuality) are called "fiducial limits". The generalization applies only to the larger group from which the sample was derived -- in this case, all male athletes in one particular sport in the western United States.

We remembered that Kinsey ⁴ had found that 37% of his sample of American males had had at least one homosexual orgasm after puberty. We compared our sample's 40% result to his 37%, using a critical ratio test. Our results did not differ significantly from Kinsey's (C.R. = .599, not significant, two-tailed).

There was, however, some question in our minds about how representative our sample was. After all, our athlete interviewer, via the three coaches, had given the questionnaires to 111 men, of whom only 82 had returned it. Was it possible that these 82 sportsmen were a biased sub-set of the total 111 whom we asked?

We decided to assume that the remaining men who did not return the questionnaire would all have answered "No" to all 6 gay questions, and we filled out dummy questionnaires with a "No" answer to these items for each of the men who didn't return a ballot. We then included these marked, anti-gay dummy ballots along with the real ones. We then re-calculated the data with this inflated sample of all 111 questionnaires. Looked at this way, 29% of the total sample of 111 men would have admitted to performing homosexual acts (compared with 40% of the real sample).

When we applied a 99% confidence interval test to this 29% result, it was still surprising: It was extremely probable that somewhere between 19% and 41% of the total population of all athletes in this sport had engaged in homosexuality at least twice in the past two years. Comparing our anti-gay,

^{4.} Kinsey, A. C., Pomeroy, W. B., and Martin, C. E. <u>Sexual behavior in the human male</u>. Philadelphia: W. B. Saunders Company, 1948.

inflated sample's 29% to Kinsey's 37%, the difference was still not significant (C.R. = -1.55, not significant, two-tailed). This result used ALL members of the three teams - not just those 82 individuals willing to fill out our questionnaires. And, it used them by adding our anti-gay ballots along with the real questionnaires. If we look at the lower fiducial limit of 19%, it is 99% probable that at least 19% of all athletes in this sport in the western United States - not just the 111 we asked, but at least 19% of ALL players of this sport - have performed gay acts at least twice in the past two years. (This generalization applies only to the western United States, because that is where we got out 3-team sample.)

This result was, frankly, still surprising. So we decided to look closer at our data to weed out anything else we could think of that might possibly have exaggerated our results.

It occurred to us that one of the six gay acts on our questionnaire - mutual masturbation with another male - might not always be considered a totally gay action. For example, the partners do not insert into any body orifice, and they possibly might not even touch each other. So, we decided to call mutual masturbation with another male a NON-homosexual act. We again re-calculated our results, still using the dummy anti-gay ballots along with the real ones to make sure we had lll questionnaires, and used only the remaining 5 homosexual items on each questionnaire as "gay" ones.

This time, 25% of the questionnaires still admitted to homosexuality at least twice in the last two years. When we applied a 99% confidence interval to this result, we found that we could generalize and say that somewhere between

15% and 36% of the total population of all athletes had had at least a couple of homosexual orgasms in the past two years. Looking just at the lower value -15% - this means that slightly more than one varsity athlete out of seven in a major team sport in the western U.S. has had at least two gay experiences in the last two years - assuming that failure to answer our questionnaire means no gay experience, and assuming that mutual masturbation with another male is not homosexual. The result was still surprising. (The result finally differed significantly from Kinsey's, however, C.R. = -2.51, p < .02, two-tailed.)

We then went back another time to our original questionnaires, and noticed that another of the 6 activities we had asked about - sex with two other males (with no females present) - might not always be totally gay. If the three males had engaged only in mutual masturbation - which we had already discarded as a gay act - then such an activity with two other males should also not be classified as gay. (Of course, sex with two other males might have included more than masturbation, but we weren't sure.) Anyway, we once again re-analyzed the data, retaining the dummy anti-gay ballots so that we still had lll questionnaires and considered both mutual masturbation with another male AND sex with two other males as NON-homosexual acts. (Thus, we now considered only 4 of our original 6 acts as gay: oral sex as insertor, oral sex as insertee, anal sex as insertor, and anal sex as insertee when performed with only one other male.)

This time 24% of the 111 ballots admitted to having homosexual experiences. (This result was significantly below Kinsey's: C.R. = 3.11, p, < .002, two-tailed.) The 99% confidence interval this time was between 14% and 35%. Looking just at

the lower number - 14% - this means that at least one athlete out of 8 in the total population of such sportsmen - again, not just our 111 ballots - has had two or more gay experiences involving oral intercourse or anal intercourse to the point of orgasm, and has done this at least twice in the last two years.

To be honest, even using only the lower confidence limit, we were still somewhat surprised.

Could many of the respondents have thrown off the data by lying or joking or not understanding the questionnaire? We're not sure, but we doubt it. For one thing, back at University "A" we gave the same questionnaire again, unexpectedly, a week later and got extremely reliable answers. For another, not a single one of the athletes at any of the five schools in all our samples admitted to having (or being willing to have) sex with inanimate objects or with animals, which were other topics on our questionnaire. If the athletes were lying or joking or not paying attention, why didn't at least one of them answer that yes, he had practised bestiality or object fetishism as well as gay activity? For still another reason, casual conversation with many athletes convinces us that they would NEVER jokingly admit to engaging in gay acts under conditions where they might actually be believed. Indeed, we think it it more likely that some of them might have lyingly DENIED a few homosexual experiences they really had, than deceptively pretended they had gay experiences that they didn't really have. (In fact, our assumption that the non-responding men out of 111 who didn't return our questionnaire were therefore exclusively heterosexual might be diametrically wrong. Perhaps at least some of them didn't return our questionnaire precisely because they had had gay experiences that they were

afraid we could somehow trace back to them - through fingerprints or something. We should note here that we gathered our data a few weeks after newspaper articles appeared announcing that the FBI and CIA sometimes gathered information on the sex lives of Americans to use against those citizens.)

Also, we intuitively felt that if the athletes were telling the truth, then more of them would have inserted their penis into another boy's mouth than have sucked a penis. And that is exactly what the data showed: about 36% of the 82 athletes admitted inserting into another male's mouth, whereas only 24% of them admitted sucking a male organ -- a result that is significant beyond the .01 level (by one-tailed <u>t</u>-test for difference between correlated proportions). Also, we felt that, if they were truthful, more athletes would have admitted inserting their penis into another boy's anus than would have accepted such an insertion, and again that is what happened: 18% had inserted, and about 14% received insertion, a difference which is significant at the .05 level (again by one-tailed <u>t</u>-test for difference between correlated proportions). If the athletes had been joking or answering randomly, about the same percentage should have claimed to have received as to have inserted - both orally and anally. So the results again looked as if the athletes were probably being honest.

Were any of the athletes EXCLUSIVELY homosexual? Yes, about 8% of the 82 sportsmen answered yes ONLY to gay items (using only the 4 unambiguous oralanal homosexual items). This result would have been about 6% if the anti-gay

^{5.} We used t-tests here, and normal random variable critical ratio tests before, because it appeared that our earlier data met the more stringent criteria of the C.R. test, and our later data did not. Detailed reasons for this can be obtained by writing to R.W.S. Also, the earlier tests were two-tailed because we had not predicted the direction of our discrepancy from Kinsey's results, while our t-tests were one-tailed because we had predicted the direction of the differences between proportions.

stuffed ballots with all 111 questionnaires had been used.

We should hasten to add, however, that heterosexuality was MUCH more prevalent than was homosexuality. Since the present paper has concerned itself only with gay acts, we may have inadvertently created an impression that we somehow stumbled onto some teams that were primarily bisexual or homosexual. If you carefully examine Tables 1 through 4, however, you will see that most athletes, were, indeed, exclusively heterosexual - at least in their external behavior, and usually also in their internal thoughts.

The subjects in our studies ranged in age from 20 to 25, with a mean of 22.5 (all 5 samples combined). Since we asked them about their behavior in the last two years, the activities they described had occurred in their late teens and early twenties. It is not clear if either their heterosexuality or their homosexuality will be lifelong patterns. However, it does seem obvious that the behaviors were not just single experiments, performed once, without orgasm, at about the time of puberty. Thus, the stereotype that no "real boy" would do anything gay seems false.

It appears that there is a lot more gay activity among college male athletes than any of us had previously thought.

TABLE 1
Rumored Athletes at University A

Percent of subjects who have performed each sexual act at least twice, to the point of orgasm, in the last two years. Or, if they have not performed an act, the percent who said they would, or would not, or were undecided.

Sex Act	Have	Would	Wouldn't	Undecided
private masturbation	100.00%	0	0	0
mutual masturbation w/female	12.00	36.00	40.00	12.00
mutual masturbation w/male *	64.00	4.00	32.00	0
penis-vagina intercourse	44.00	28.00	20.00	.8.00
sex w/couple (one male-one female)	8.00	24.00	28.00	40.00
sex w/couple (two females)	8.00	40.00	40.00	12.00
sex w/couple (two males) ·*	20.00	18.00	40.00	22.00
group sex (3 or more persons)	8.00	8.00	46,00	38.00
sex with animals	0	0	100.00	0
sex with inanimate objects	0	0	100.00	0
sado-masochism	8.00	0	84.00	8.00
oral sex w/female (insertee)	40.00	12.00	28.00	20.00
oral sex w/female (insertor)	48.00	48.00	4.00	0
oral sex w/male (insertee) *	48.00	0	48.00	4.00
oral sex w/male (insertor) *	60.00	0	32.00	8.00
anal sex W/female	4.00	32.00	32.00	32.00
anal sex w/male (insertor) *	20.00	16.00	56.00	8.00
anal sex w/male (insertee) *	20.00	0 .	68.00	12.00
voyeurism	12.00	60.00	18,00	10.00
incest	0	4.00	96.00	0 .

³⁵ athletes were asked to complete the questionnaire. 25 responded.

All percentages in this table refer to the 25 who responded.

^{*} gay item

TABLE 2
Non-Rumored Athletes at University A

Percent of subjects who have performed each sexual act at least twice, to the point of orgasm, in the last two years. Or, if they have not performed an act, the percent who said they would, or would not, or were undecided.

Sex Act	Have	Would	Wouldn't	Undecided
private masturbation	100.00%	0%	0%	0%
mutual masturbation w/female	11.76	29.41	52.94	5.88
mutual masturbation w/male *	41.17	17.64	35.29	5.88
penis-vagina intercourse	76.47	17.64	5.88	0
sex w/couple (one male-one female)	11.76	11.76	76.47	0
sex w/couple (two females)	0	35.29	64.70	0
sex w/couple (two males) *	17.64	41.17	35.29	5.88
group sex (3 or more persons)	11.76	5.88	35.29	47.05
sex with animals	0	0	100.00	0
sex with inanimate objects	0	0	100.00	0
sado-masochism	5.88	5.88	76.47	11.76
oral sex w/female (insertee)	64.70	17.64	11.76	5.88
oral sex w/female (insertor)	76.47	17.64	5.88	0
oral sex w/male (insertee) *	41.17	5.88	52.94	0
oral sex w/male (insertor) *	29.41	11.76	52.94	5.88
anal sex w/female	11.76	5.88	58.82	23.52
anal sex w/male (insertor) *	17.64	11.76	70.58	0
anal sex w/male (insertee) *	11.76	0	82.35	5.88
voyeurism	23.52	58.82	17.64	0
incest	5.88	0	94.11	0

³¹ athletes were asked to complete the questionnaire. 17 responded.

All percentages in this table refer to the 17 who responded.

TABLE 3
Rumored Athletes at University B

Percent of subjects who have performed each sexual act at least twice, to the point of orgasm, in the last two years. Or, if they have not performed an act, the percent who said they would, or would not, or were undecided.

Sex Act	Have	Would	Wouldn't	Undecided
private masturbation	100.00%	0%	0%	0%
mutual masturbation w/female	0	50.00	50.00	0
mutual masturbation w/male *	50.00	25.00	25.00	0
penis-vagina intercourse	62.50	12.50	0	25.00
sex w/couple (one male-one female)	0	0	62.50	37.50
sex w/couple (two females)	0	37.50	50.00	12.50
sex w/couple (two males) *	0	25.00	62.50	12.50
group sex (3 or more persons)	0	12.50	50.00	37.50
sex with animals	0	0	100.00	0
sex with inanimate objects	0	0	100.00	0
sado-masochism	0	0	100.00	0
oral sex w/female (insertee)	50.00	0	37.50	12.50
oral sex w/female (insertor)	37.50	37.50	25.00	0
oral sex w/male (insertee) *	75.00	0	25.00	0
oral sex w/male (insertor) *	62.50	12.50	25.00	0
anal sex w/female	0	25.00	75.00	0
anal sex w/male (insertor) *	25.00	12.50	50.00	12.50
anal sex w/male (insertee) *	25.00	0	62.50	12.50
voyeurism	12.50	62.50	0	25.00
incest	0	0	100.00	0

12 athletes were asked to complete the questionnaire. 8 responded.

All percentages in this table refer to the 8 who responded.

TABLE 4 Combined Data from Universities C, D, and E

Percent of subjects who have performed each sexual act at least twice, to the point of orgasm in the last two years. Or, if they have not performed an act, the percent who said they would, or would not, or were undecided.

Sex Act	Have	Would	Wouldn't	Undecided
private masturbation	100.00%	0	0	0
mutual masturbation w/female	36.58	9.75	25.60	28.04
mutual masturbation w/male *	20.73	15.85	47.56	15.85
penis-vagina intercourse	71.95	15.85	12.19	1.21
sex w/couple (one male-one female)	7.31	12.19	53.65	26.82
sex w/couple (two females)	8.53	35.36	37.80	18.29
sex w/couple (two males) *	7.31	12.19	56.09	24.39
group sex (3 or more persons)	4.87	19.51	46.34	29.26
sex with animals	0	0	100.00	0
sex with inanimate objects	0	0	100.00	0
sado-masochism	3.65	4.87	71.95	19.51
oral sex w/female (insertee)	57.31	20.73	17.07	4.87
oral sex w/female (insertor)	53.65	29.26	15.85	1.21
oral sex w/male (insertee) *	24.39	7.31	62.19	6.09
oral sex w/male (insertor) *	36.58	4.87	47.56	10.97
anal sex w/female	4.87	26.82	51.21	17.07
anal sex w/male (insertor) *	18.29	7.31	63.41	10.97
anal sex w/male (insertee) *	14.63	1.21	79.26	4.87
voyeurism	17.07	48.78	14.63	19.51
incest	0	2.43	95.12	2.43

¹¹¹ athletes were asked to complete the questionnaire. 82 of them did so.
All percentages in this table refer to the 82 who responded.

Summary of Gay Activities at Universities C,D, and E (111 athletes were asked to complete the questionnaire. 82 of them did so.)

Percent of sample of 82 athletes who have engaged in one or more of the six gay activities originally listed in questionnaire	40.24%	
Upper 99% Confidence Limit for population of all athletes in this sport in western U.S. who have engaged in one or more of six originally listed gay acts, as generalized from sample of 82	54.19%	Percentage in total population is somewhere between these numbers
Lower 99% Confidence Limit (as generalized)	26.29%	these manuers
Percent of sample of 111 ballots which admitted engaging in one or more of six originally listed gay acts (111 ballots were composed of 82 real questionnaires and 29 additional anti-gay "dummy" ballots. See page 9 of text for explanation)	29.72%	
Upper 99% Confidence Limit drawn from these 111 ballots (Assumes all non-respondents were exclusively heterosexual)	40.81%	Percentage in total population is
Lower 99% Confidence Limit (same assumption)	18.63%	somewhere between these numbers
Percent of sample of 111 ballots which admitted engaging in one or more of remaining FIVE gay acts, when mutual masturbation was deleted from list (111 ballots included 82 real questionnaires and 29 additional anti-gay "dummy" ballots)	25.22%	
Upper 99% Confidence Limit (Assumes all non- respondents were exclusively heterosexual, and also assumes mutual masturbation NOT gay)	35.84%	Percentage in total population is
Lower 99% Confidence Limit (Same assumptions)	14.60%)	somewhere between these numbers
Percent of sample of 111 ballots which admitted engaging in one or more of remaining FOUR gay acts, when BOTH mutual masturbation AND sex with two males were discarded from gay list	24.32%	
Upper 99% Confidence Limit (Assumes all non- respondents were exclusively heterosexual, and also assumes that mutual masturbation and sex with two other males are NOT gay)	34.82%	Percentage in total population is somewhere between
Lower 99% Confidence Limit (Same assumptions)	13.82%/	these numbers