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Racial Bias in Polygraphy and Possible Cover-up: Cause for Concern?!

The attached 22-page document was presented by Dr. Gordon H. Barland, then Director of Research, Department of Defense Polygraph Institute (DoDPI), to members of the federal polygraph research community at a group meeting in 1990. Shortly thereafter, the DoDPI director, who attended that presentation, requested that the documents be returned or that the portion which referred to racial bias studies conducted by DoDPI (the last nine pages) be destroyed. All of the above may be of great concern and interest because:

- Although not enough information was presented at the aforementioned meeting to determine any true significance (statistical or otherwise) of the results, **these studies at face value suggest that innocent black polygraph examinees are more likely to be found deceptive on polygraph examinations (a false positive result) than are innocent white examinees;**
- The polygraph formats examined in these studies are **two of the most common “control” question polygraph formats used in the United States: the Zone Comparison Test (ZCT) and the Modified General Question Test (MGQT) ;**
- The material was presented in a serious manner as a serious research effort by one of the leading polygraph researchers at the time (who is often now offered by the polygraph community as an expert in discussing that community’s views about polygraph countermeasures) to leading members of the federal agency community;
- These studies involved a large number of “test” subjects—approximately 1,100;
- There appears to be little reason for DoDPI to have withdrawn this study, as it did at the time, and for it never to have been published at all. Even if successive studies were properly done and resulted in differing outcomes and conclusions than those contained in this study, **it was altogether improper for DoDPI to have simply simply “buried” this study.** And if this one study (with clear and obvious negative implications for the polygraph community) was ignored, how can we be certain that other studies have not been similarly treated?

Contained with this document are the following troubling results:

- **Less than 60% of these tests resulted in a correct decision having been rendered for all 1,141 subjects involved,** black and white, guilty and innocent (p.14; p. 16 of the PDF file);
- **Only 23.5% of innocent blacks were correctly classified as being non-deceptive,** which was considerably less than the 36.9% of whites correctly classified (p.16; p. 18 of the PDF file). Applicants for federal agency positions should be particularly concerned with this: it suggests that if they tell the truth on a polygraph exam, they would have a roughly 63% chance (if white) and a 77% chance (if black) of either being found deceptive or having an inconclusive result. Either outcome would likely eliminate them from further consideration for federal employment;
- **Only 14.6% of blacks were correctly classified as non-deceptive through use of the MGQT polygraph format,** compared with 33.3% of white examinees (p.19; p. 21 of the PDF file);
- **Nearly twice as many innocent blacks were found to be deceptive as were innocent whites through the ZCT polygraph format (51.9% vs. 28.6%).**

A few words are in order regarding why this study should be considered carefully and why certain possible “straw-man” arguments that might be raised to discredit it should be carefully questioned and likely dismissed. First, in order to have any validity, a polygraph bias study (racial or otherwise) would have to be conducted such that examiners had no idea that a bias study was being conducted. Otherwise, in the case of a racial bias study, examiners would simply try to balance the number of blacks and whites who were found to be deceptive. Even if there existed some substantial number of false positives, they would be equally balanced, and there would appear to be no racial bias.

It has been suggested informally by the polygraph community that these large numbers of exams were conducted by federal polygraph examiner trainees (students) during their course of basic instruction at DoDPI and that this is a weakness and perhaps a reason for discounting these results. In fact, quite the opposite is true: because the exams were training exams and not conducted for purposes of detecting possible bias, they are far less susceptible to being manipulated to disguise any bias that may exist. This is precisely how such a study should be conducted in this regard. The polygraph community has suggested that because these were trainees with limited experience, these results should be discounted. Nonsense! Any bias that might be exhibited by these or other individuals has little to do with the trade school instruction of a few weeks of polygraph training, but rather with the lifetime of impressions and influences that 30- to 50-year-old law enforcement/intelligence community officers and agents (those who constitute the polygraph classes) have amassed. Bias is likely to be reflected not in the technical operation of the polygraph instrument (calibration, etc.), but rather in the pre-test interview (question formulation, etc.) and the in-test phase question presentation to the examinee.

In summary, does this study conclusively prove racial bias in polygraphy? No, it does not. *But it raises some very troubling concerns that need to be thoroughly investigated.*

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Analysis of DPI Studies

DoD Polygraph Institute

10 August 1990

Gordon H. Barland, PhD

List of DPI Studies

Mock crime

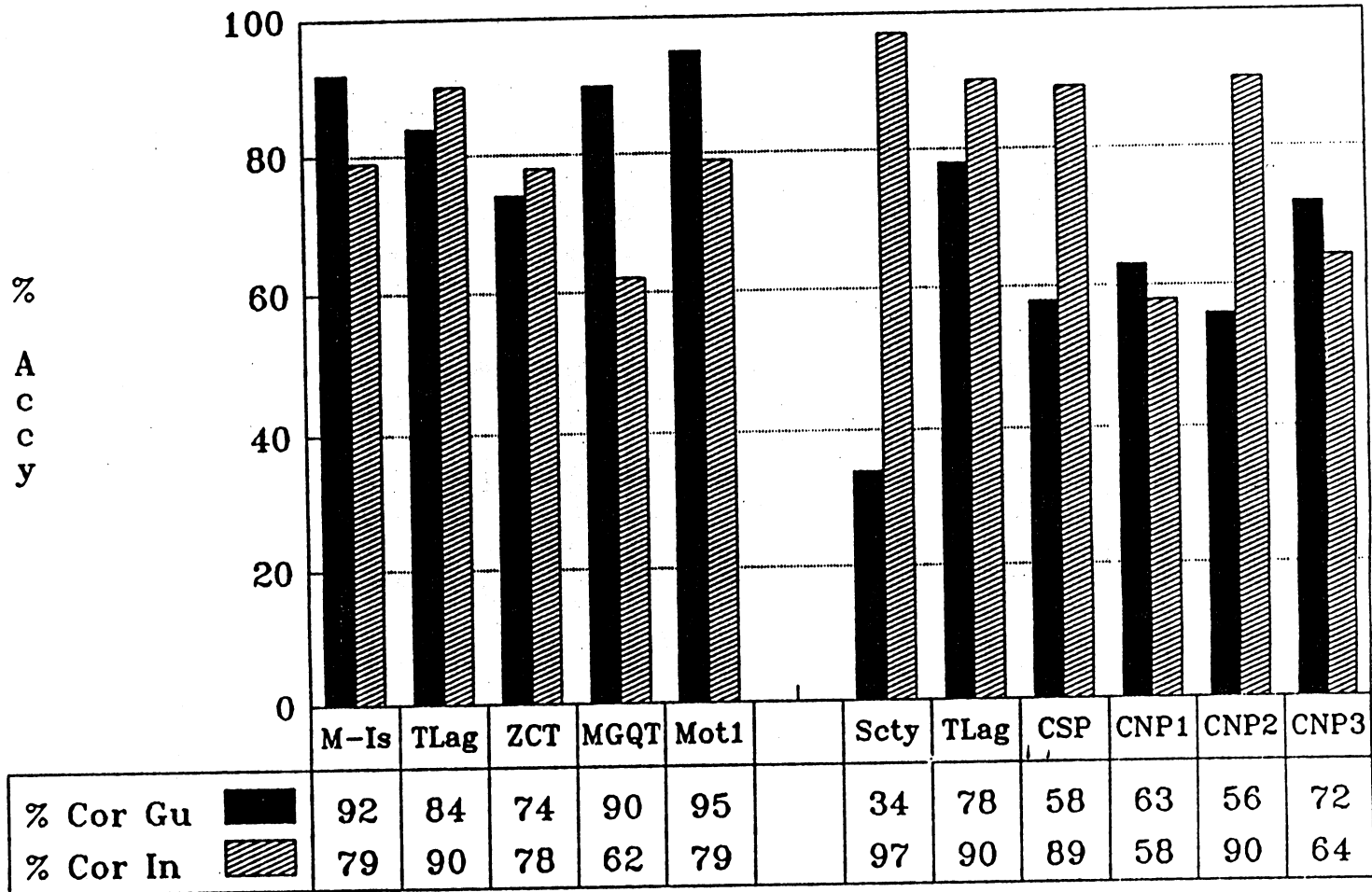
1. Multi- v. Single-Issue tests N = 100
2. Time Lag & Question Specificity study
(criminal half) N = 50
3. ZCT study N = 40
4. MGQT study N = 88
5. Motivation study N = 60

Mock Screening

1. Security Screening validation study N = 207
2. Time lag & question specificity study
(screening half) N = 50
3. CSP question study (old v new) N = 151
4. CNP-1 (Scenarios) N = 86
5. CNP-2 (CQs) N = 120
6. CNP-3 (Pretest) N = 183

All DPI Studies, Guilty & Inno

Accy of decisions (excluding incl)



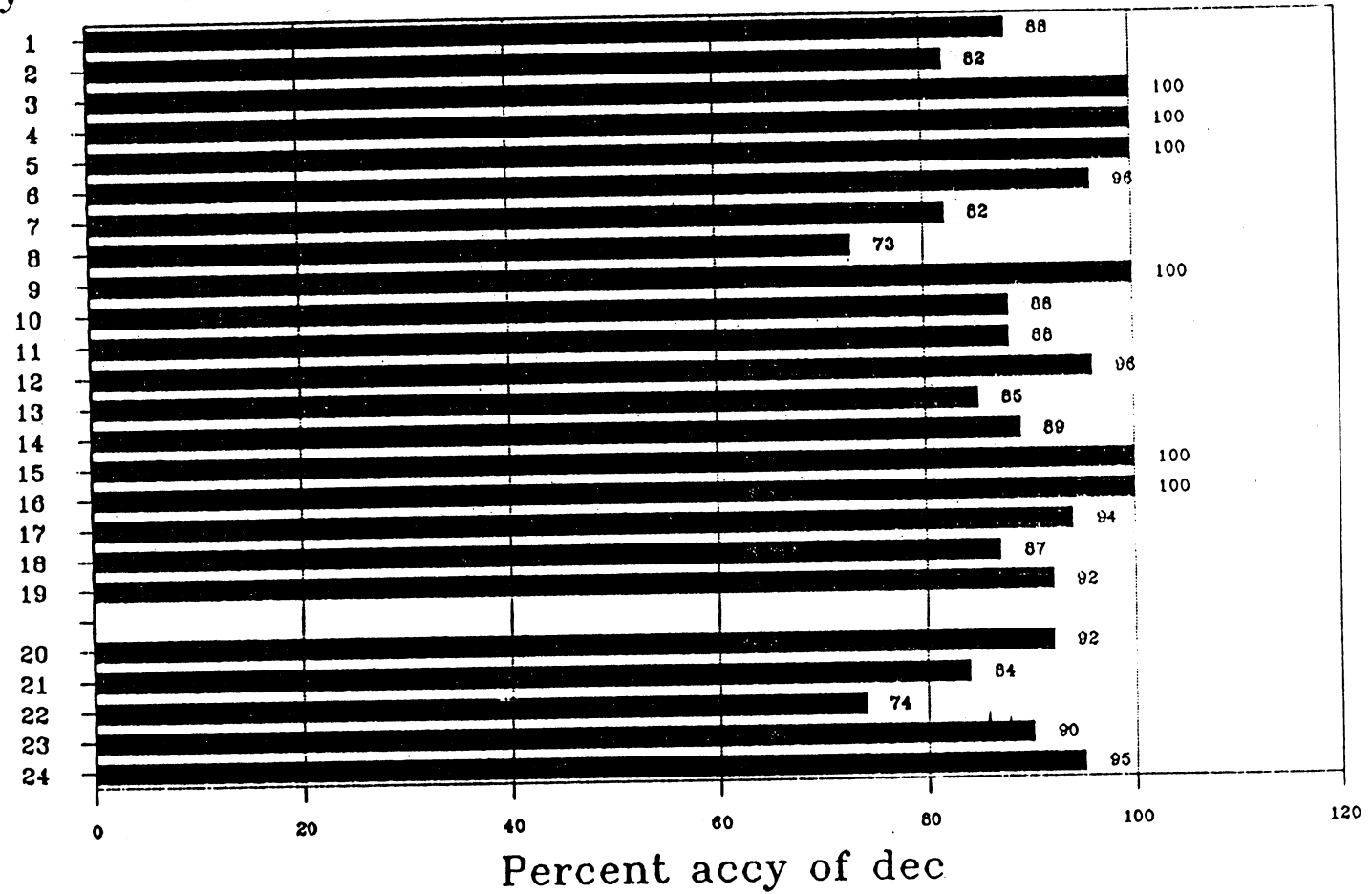
KEY

TITLE	G_n^u	% Incl
1. Barland & Raskin (1975)	36	28
2. Podlesny & Raskin (1978)	20	15
3. Raskin & Hare (1978)	24	12
4. Rovner et al (1979)	24	12
5. Dawson (1980)	12	-
6. Hammond (1980)	32	25
7. Bradley & Janisse (1981)	96	26
8. Szucko & Kleinmuntz(1981)	15	-
9. Ginton et al (1982)	2	-
10. Bradley & Ainsworth (1984)	16	-
11. Gatchel et al (1984)	14	43
12. Honts et al (1985)	31	19
✓13. Honts et al (1986)	20	35
✓14. Foreman & McCauley(1986)	22	14
✓15. Honts et al (1987)	10	20
✓16. Driscoll, Honts, & Jones 1987	20	10
17. Kircher & Raskin (1988)	50	6
✓18. Patrick & Iacono (1989)	24	4
✓19. Horowitz (1989)	15	20

20. Multi-Issue	77	19
21. 1/2 Time lag	40	8
22. ZCT	20	5
23. MGQT	44	5
24. Mot-1	30	27

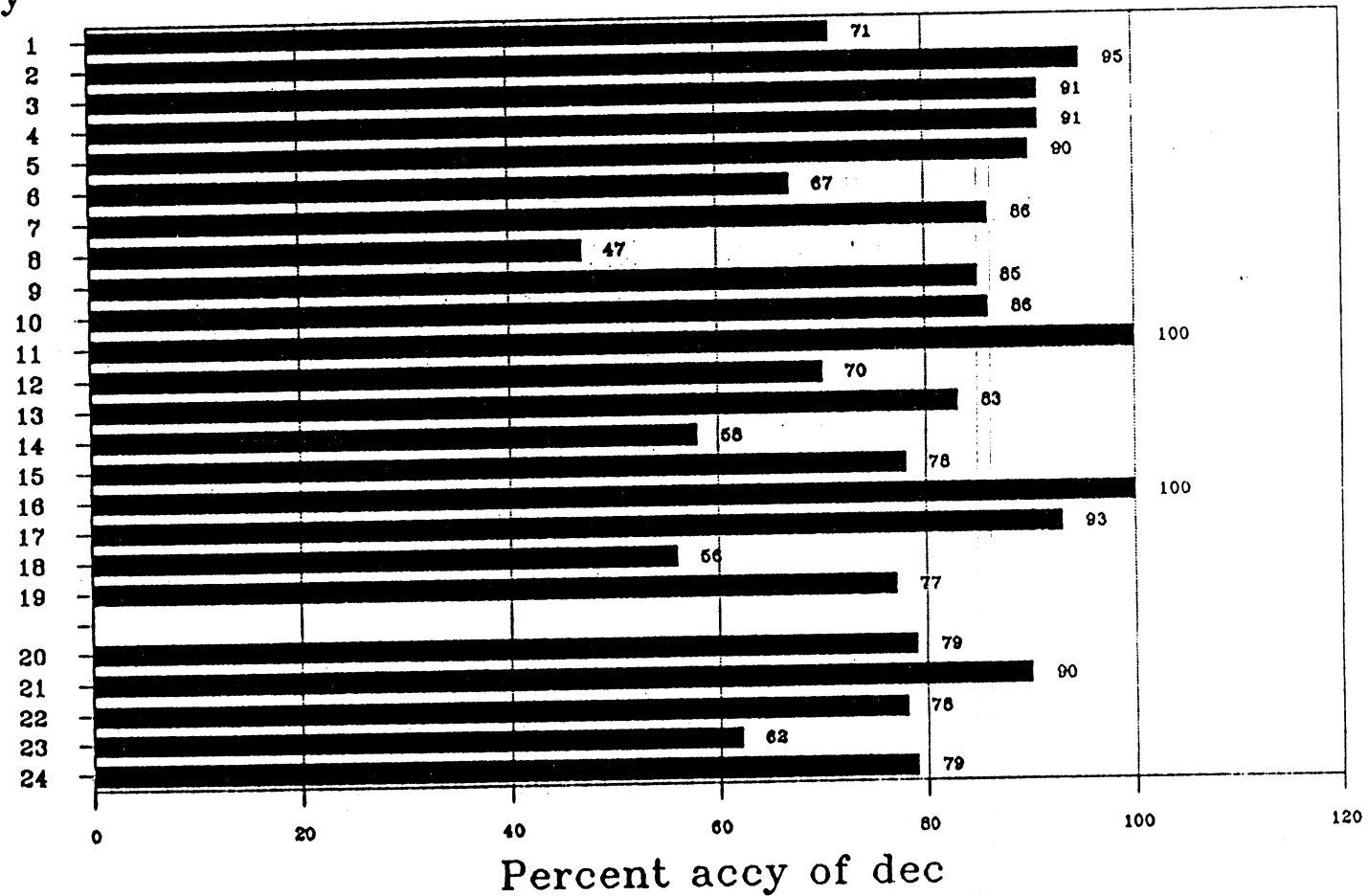
Decision accy, Criminal, Guilty Ss Others and DPI

Study



Decision accy, Criminal, Innocent Ss Others and DPI

Study

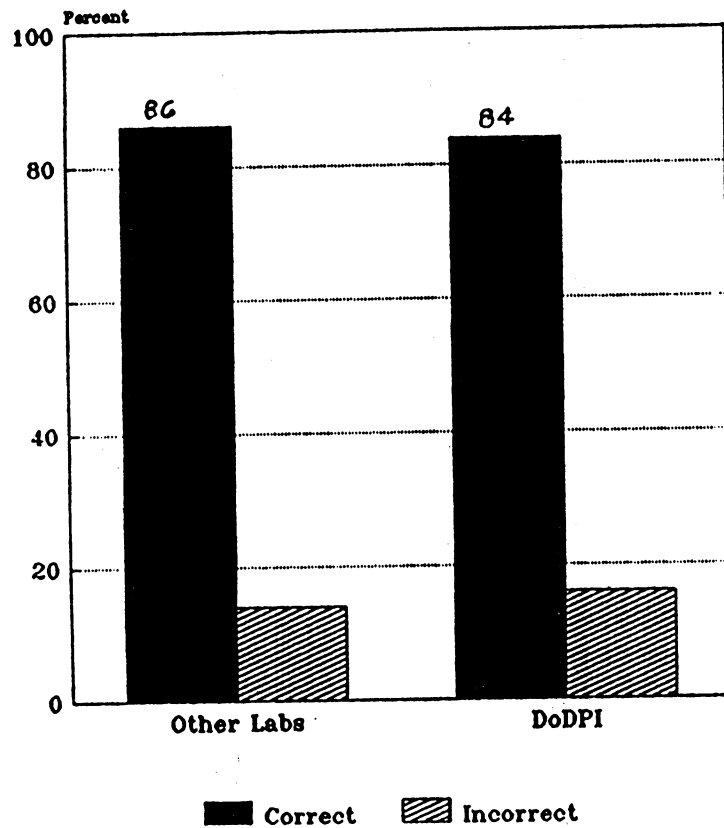


Key Findings

1. DPI mock crime accuracy:
 - a. 21% inconclusive
 - b. 84% accuracy of decisions (excl incl)

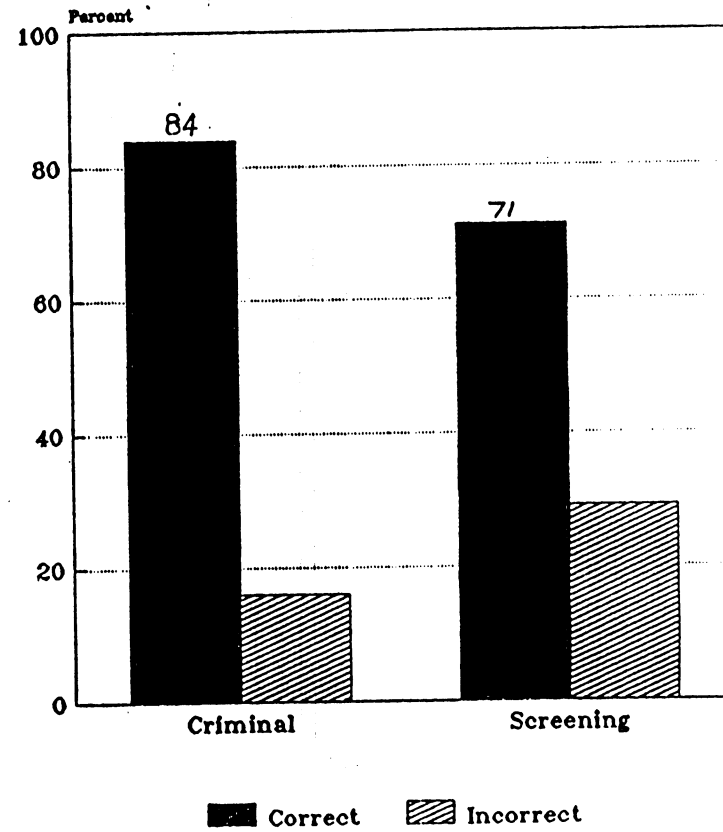
2. DPI is just as accurate as other labs.
 - a. 19% inconclusive
 - b. 86% accy of decisions

Accuracy of Mock Crime studies DPI (N = 338) v. Other Labs (N = 961)



Incl: Other = 19%, DPI = 21%

Accuracy of Examiner Decisions Criminal (N = 338) v. screening (N = 793)



Incl: Criminal = 21%, Screening = 23%

Key Findings

DPI mock crimes compared to
non-DPI mock crime studies:

3. Guilty Ss are just as easily detected.
4. Innocent Ss are just as easily cleared.

[But...DPI has more inconclusives
on innocent Ss (33%) than do
other labs (21%)]

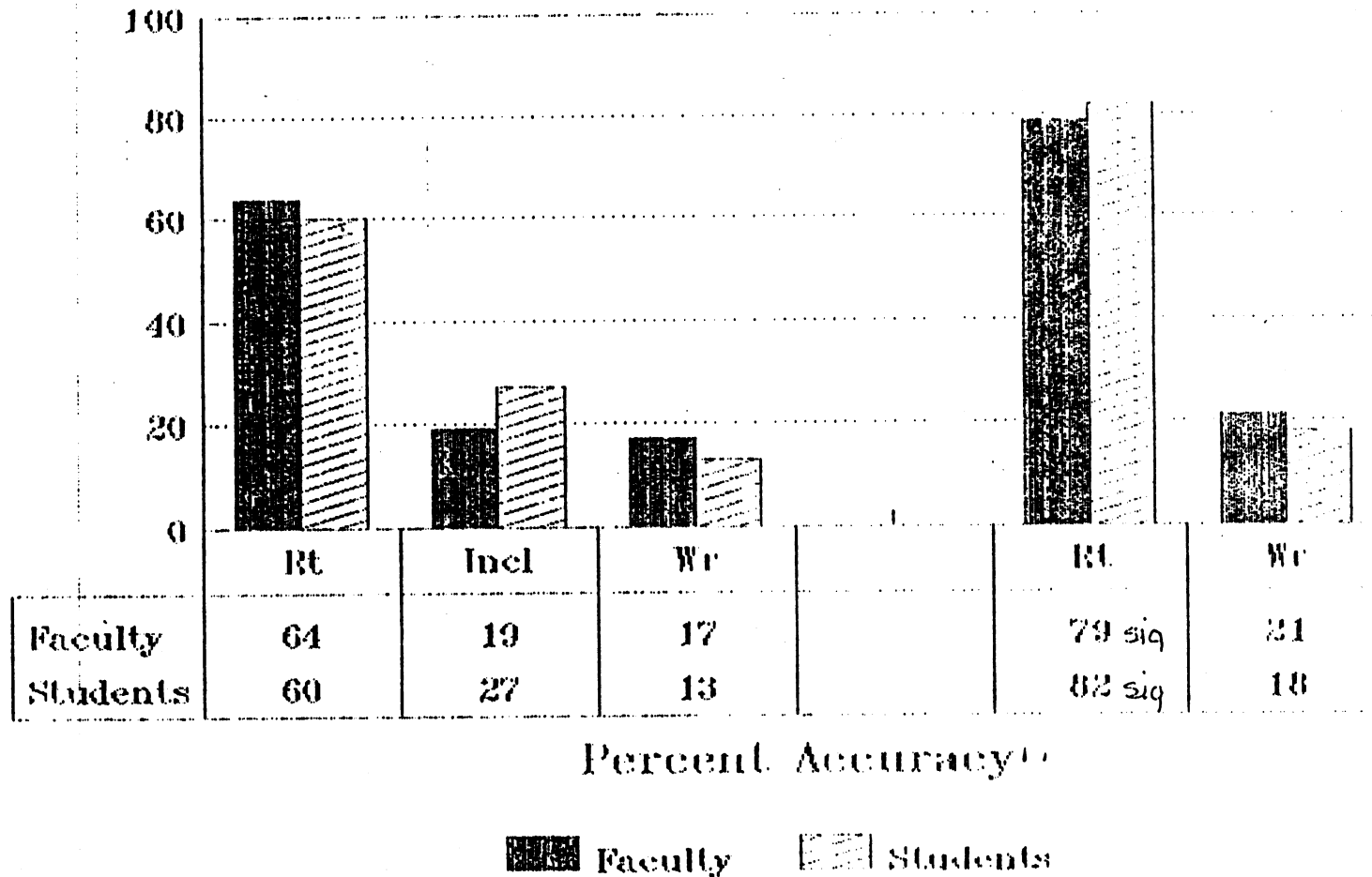
Key Finding

Mock Screening Studies

5. The polygraph is less accurate in mock screening studies than in mock crime studies.
6. Most errors in mock screening are FNs.

Demographic study

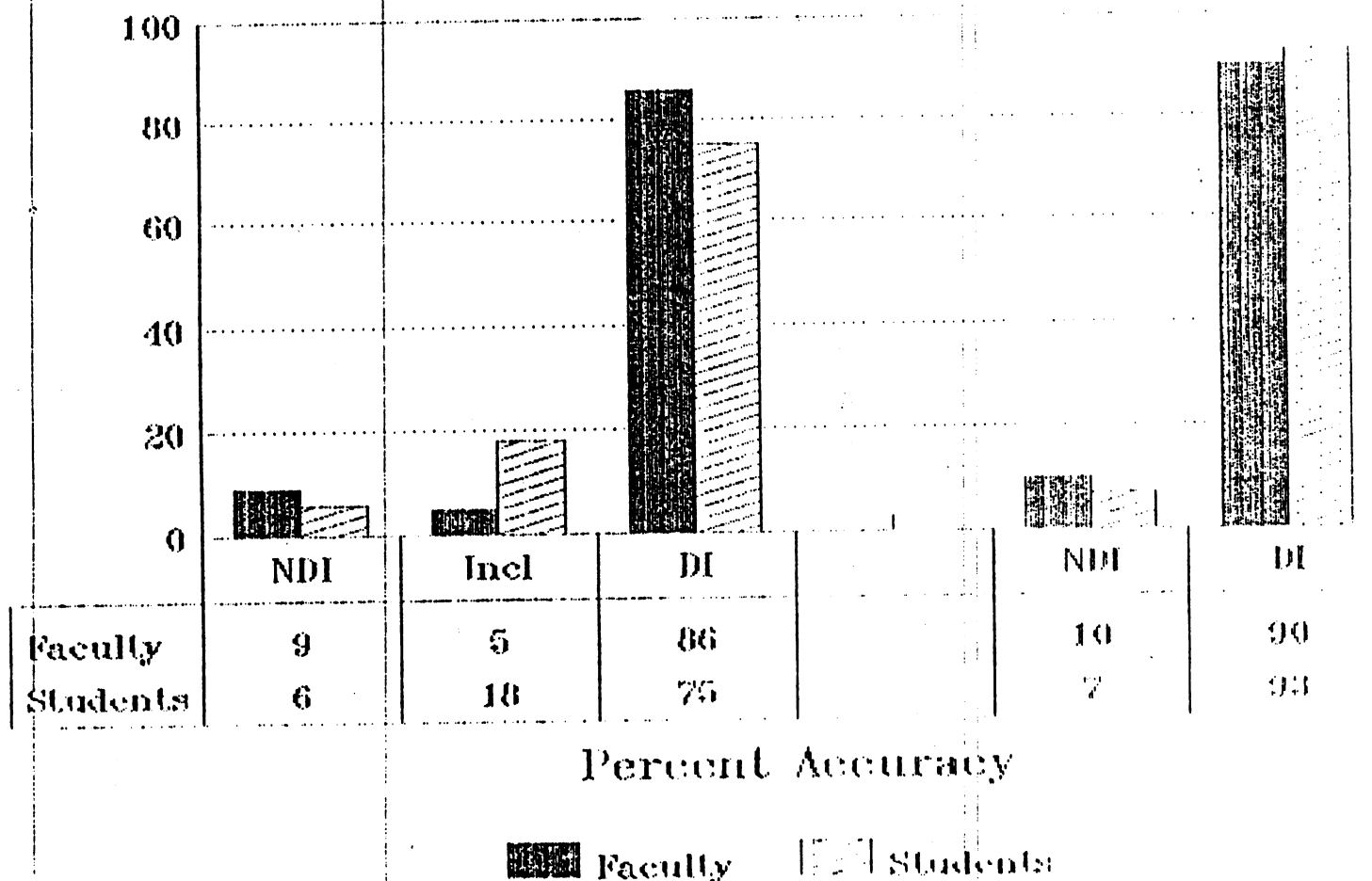
Accuracy of MGQT by students & faculty Mock crimes at DPI



Stdts: N=445 G, 259 I; Fac: N=44 G, 44 I

Demographic Study

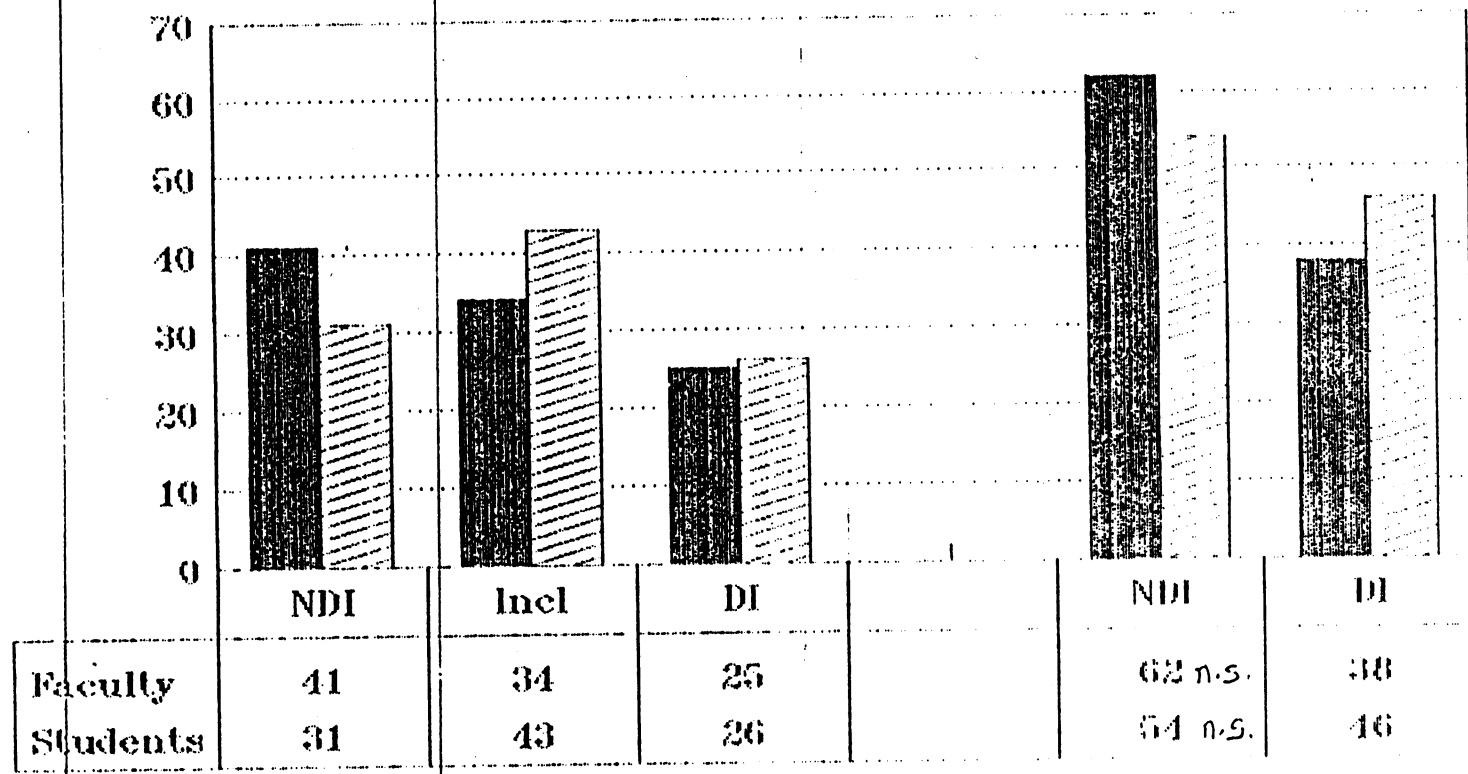
Accuracy of MGQT w/ Guilty Ss
Mock crimes at DPI



Stats: N=445 G, 259 I; Fac: N=44 G, 44 I

Demographic Study

Accuracy of MGQT w/ Innocent Ss Mock crimes at DPI

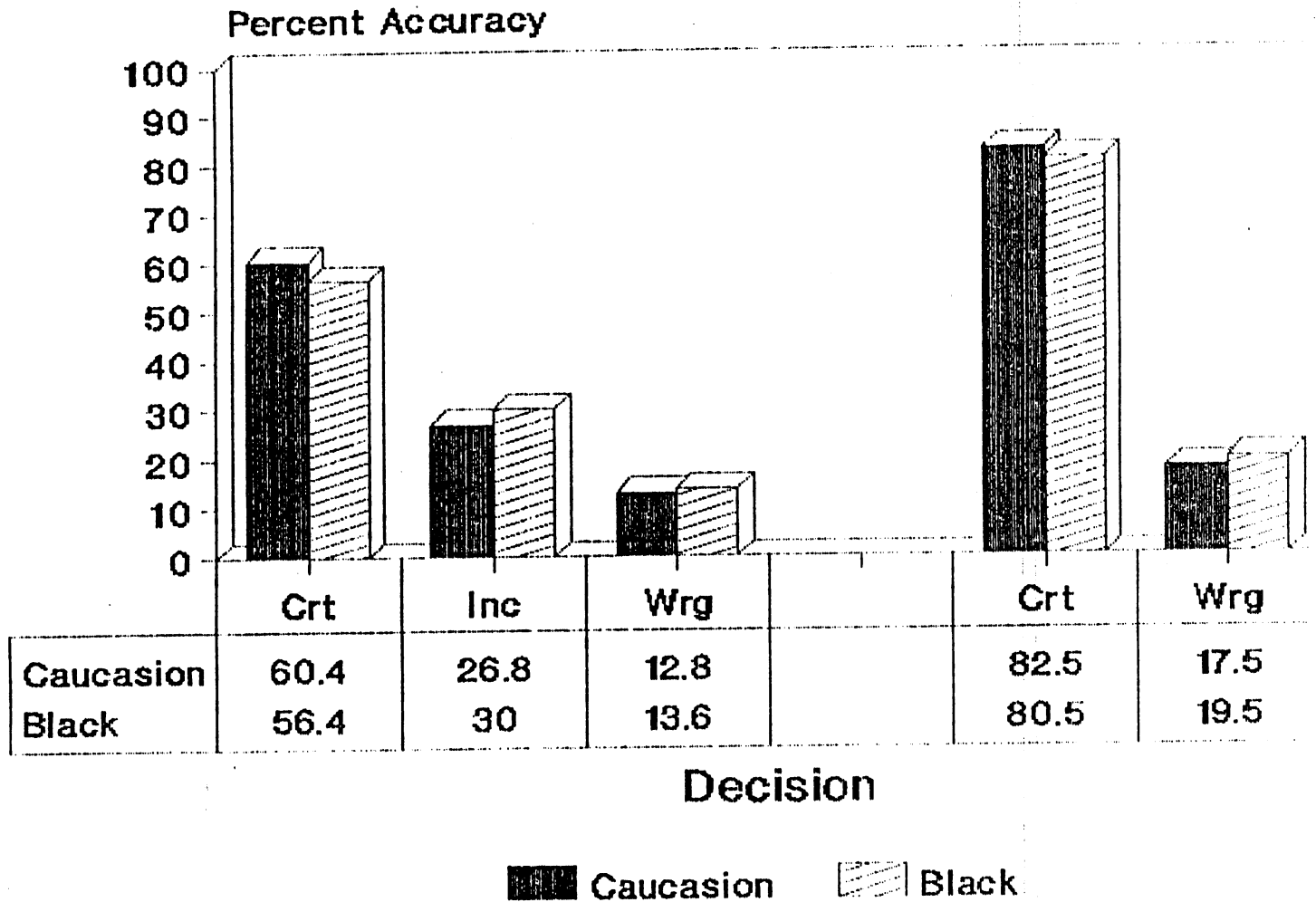


Percent Accuracy

Faculty
 Students

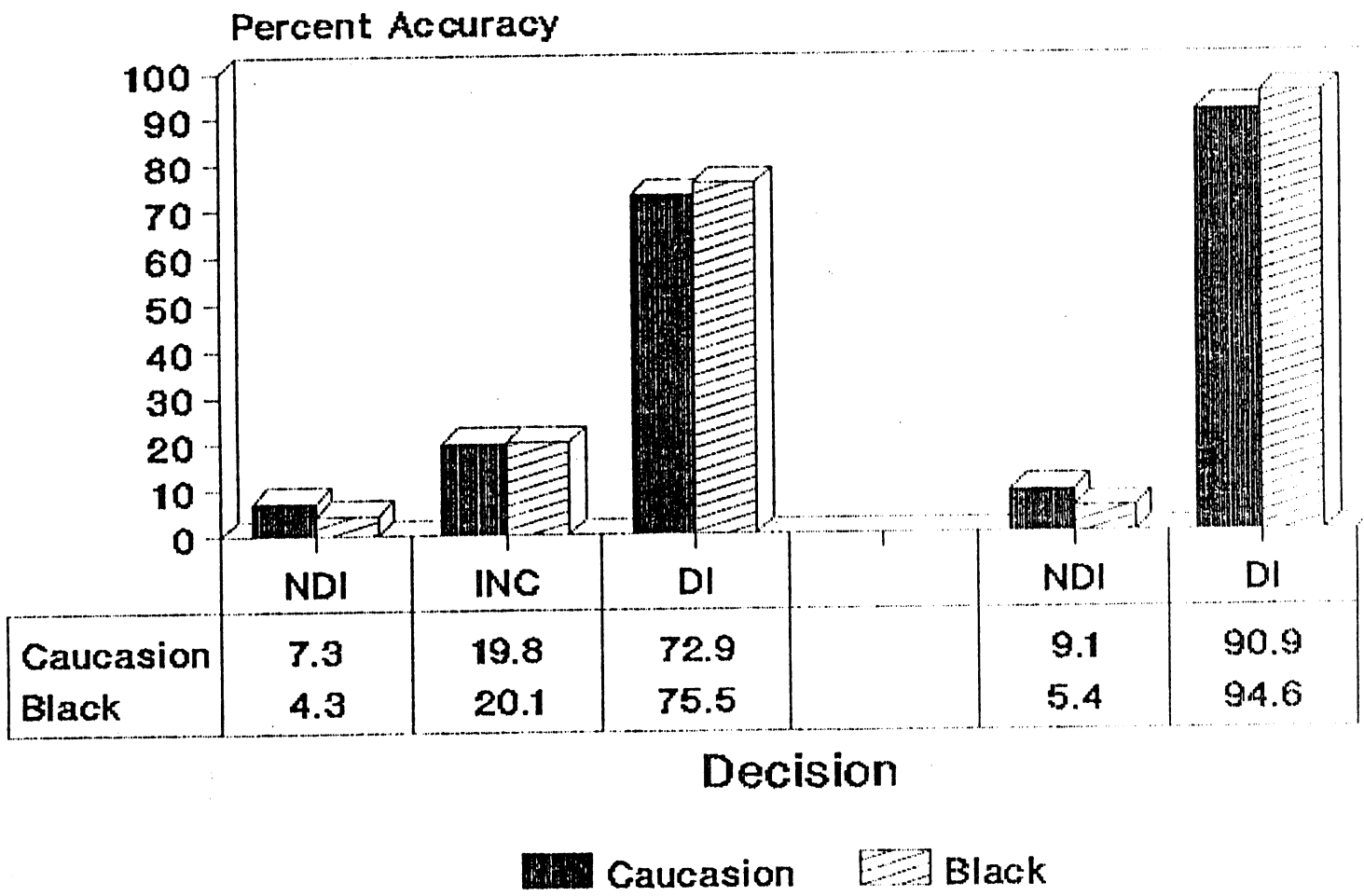
Stdts: N=445 G, 259 I; Fac: N=44 G, 44 I

Race for MGQT and ZCT



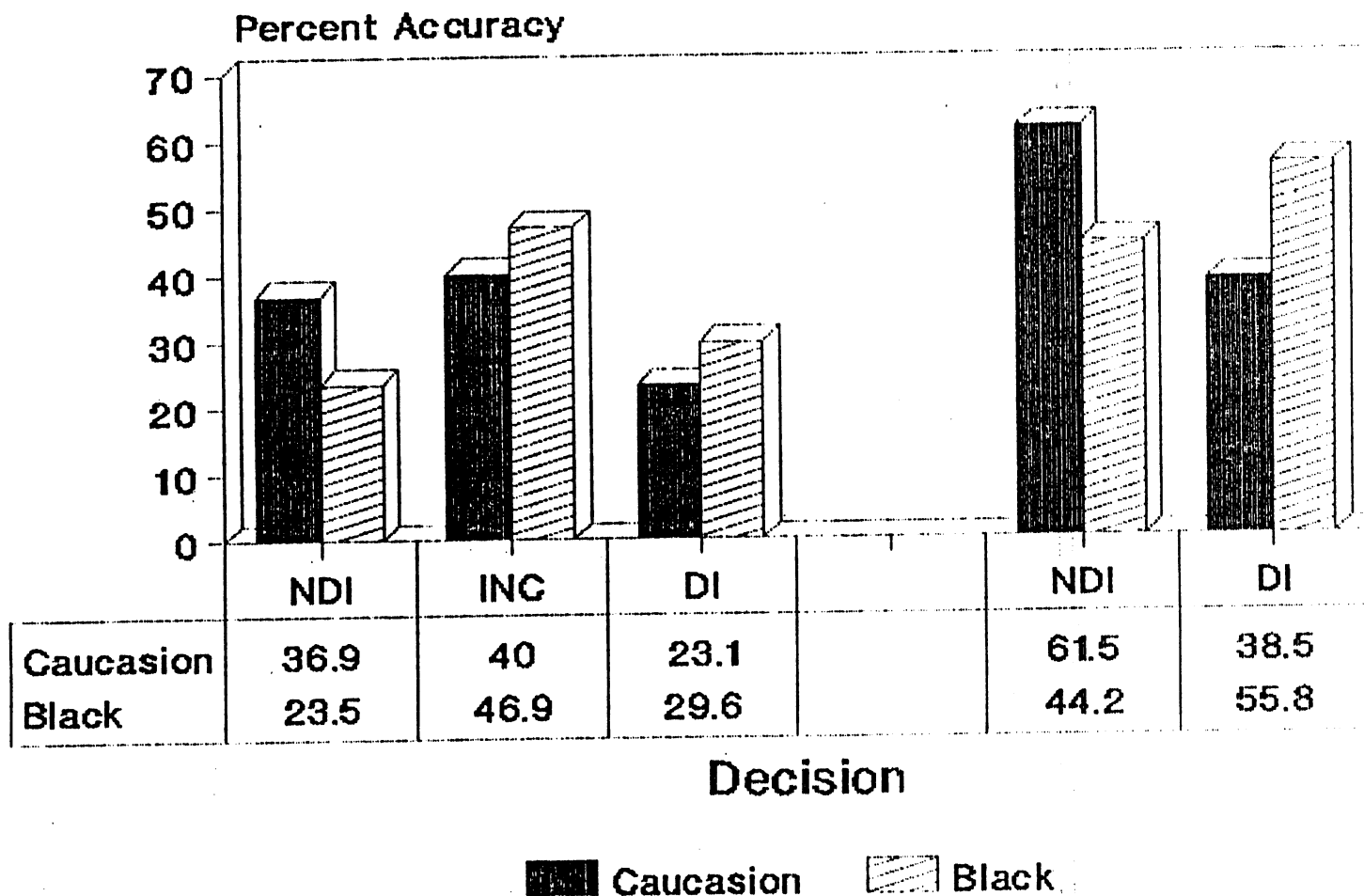
Race for MGQT and ZCT

Guilty Examinees

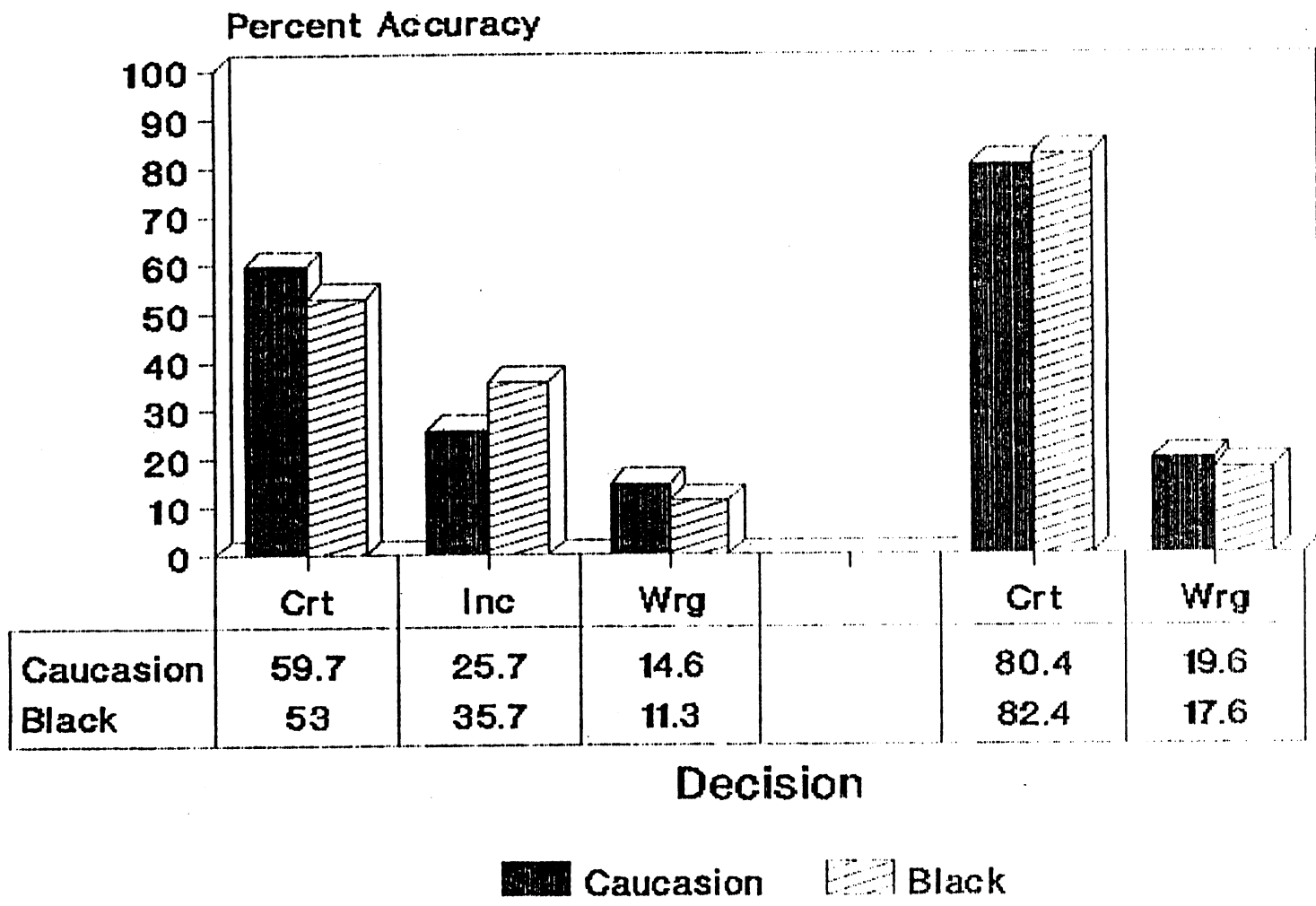


N: W-601 B-139

Race for MGQT and ZCT Innocent Examinees



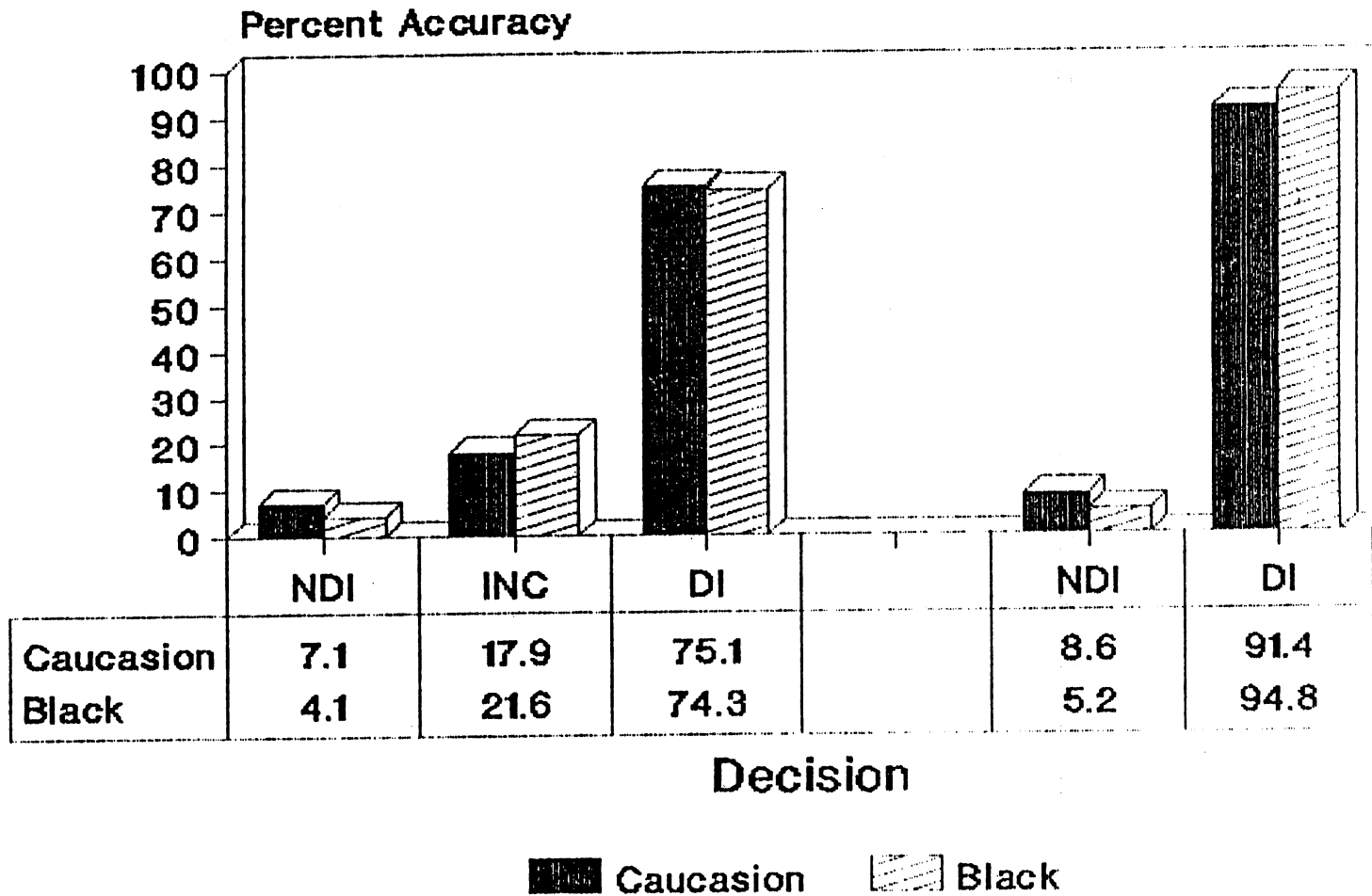
Race for MGQT



N: W-514 B-115

Race for MGQT

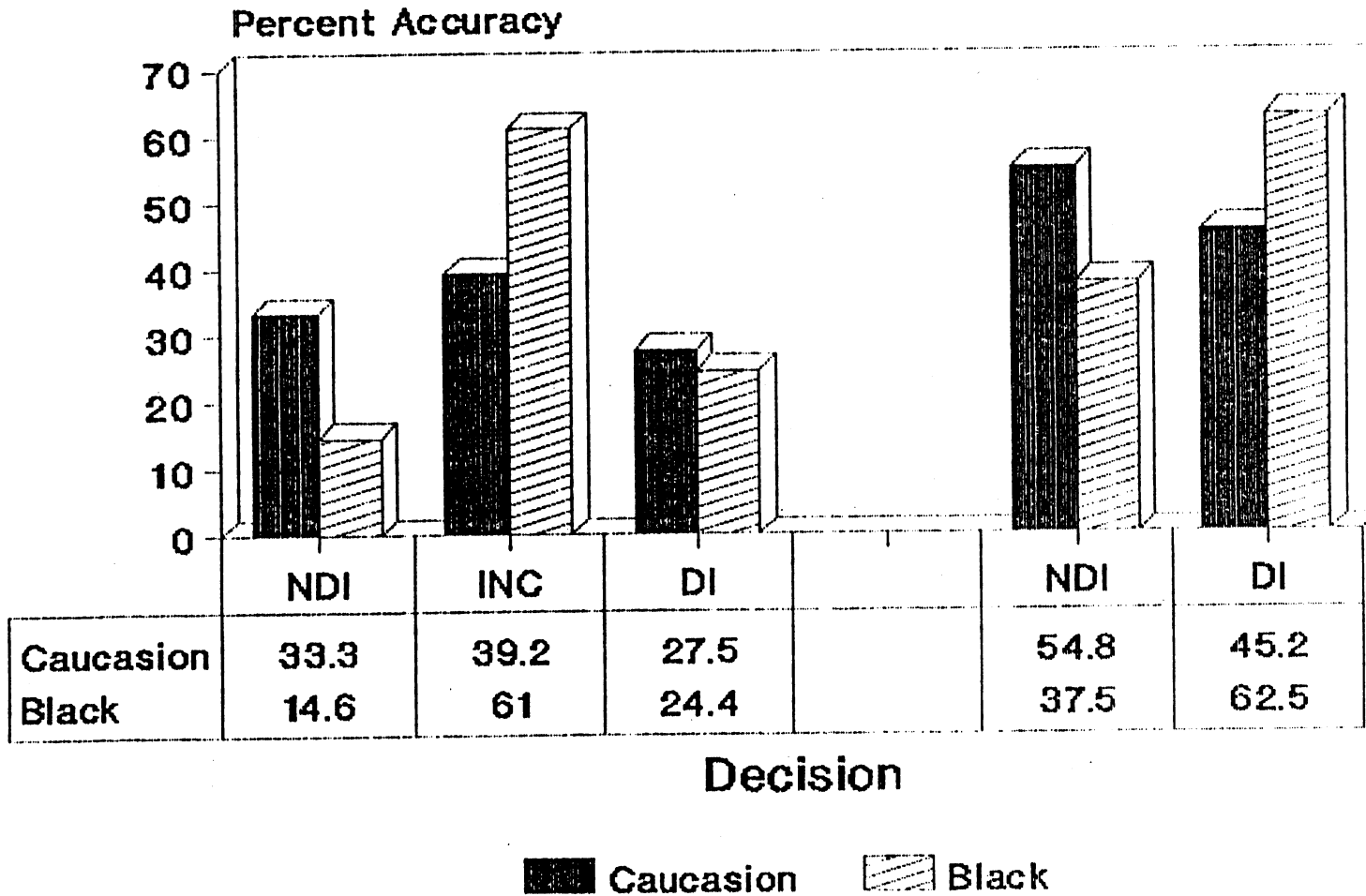
Guilty Examinees



N: W-325 B-74

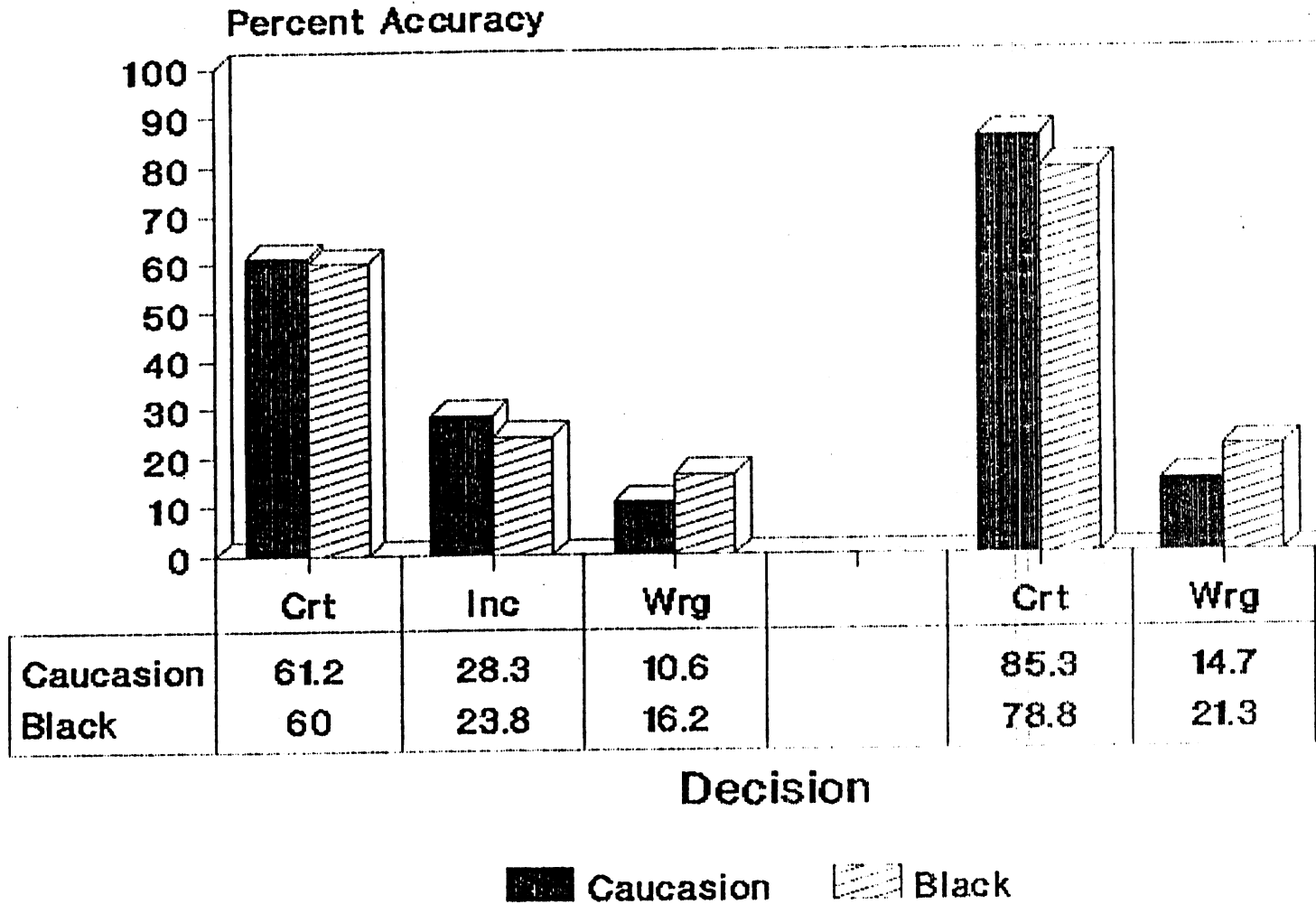
Race for MGQT

Innocent Examinees



N: W-189 B-41

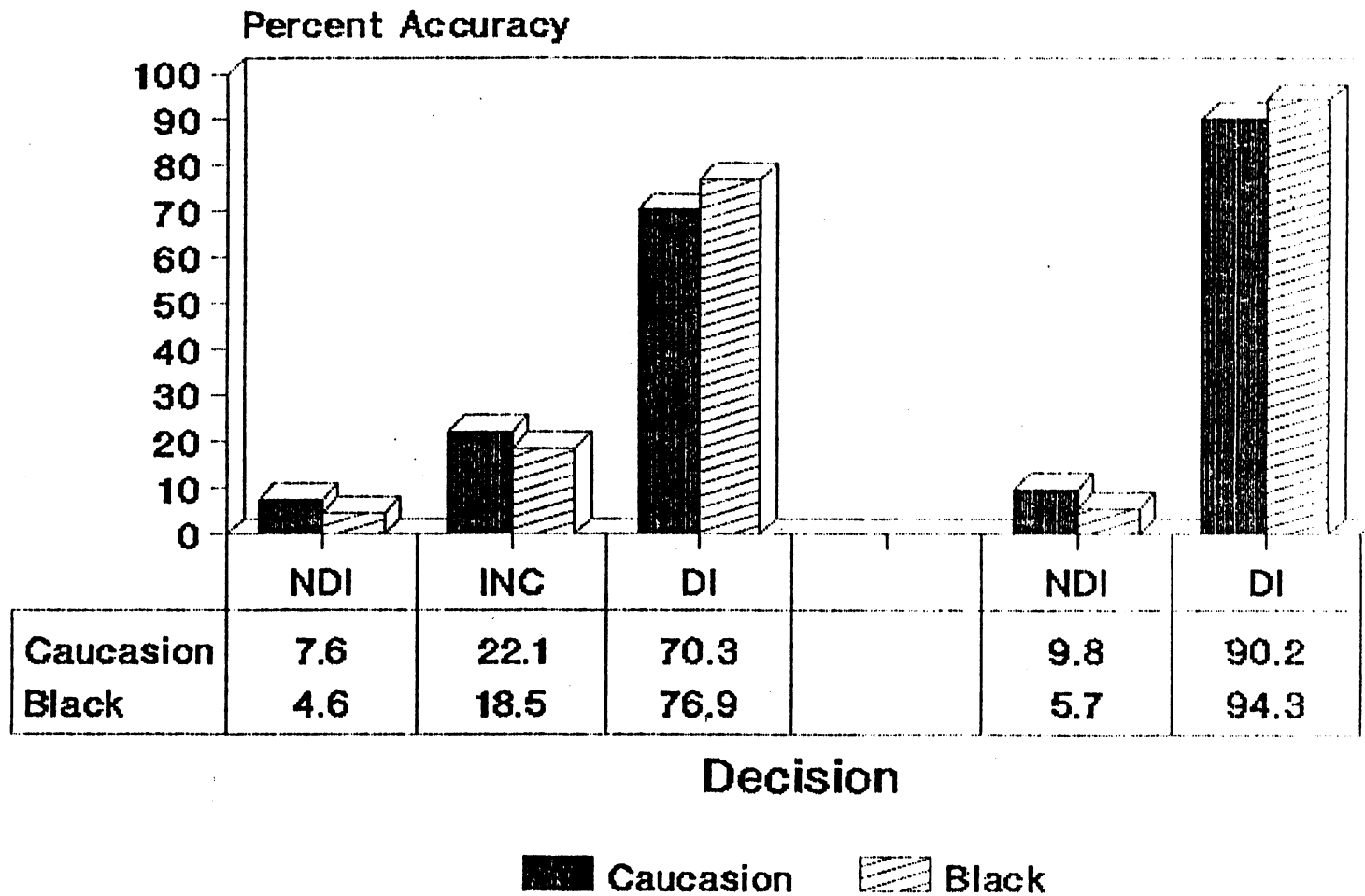
Race for ZCT



N: W-407 B-105

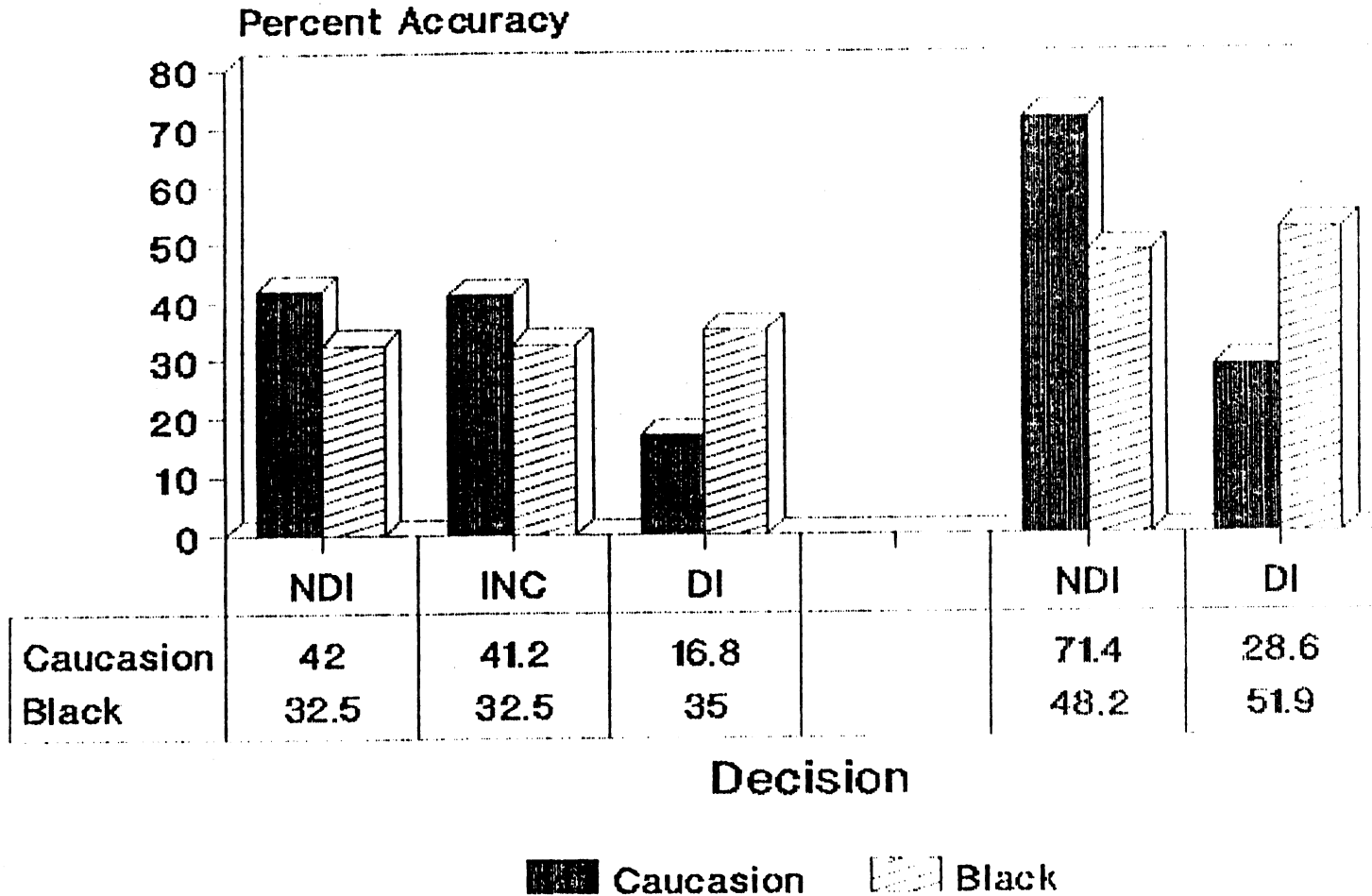
Race for ZCT

Guilty Examinees



N: W-276 B-65

Race for ZCT Innocent Examinees



N: W-131 B-40