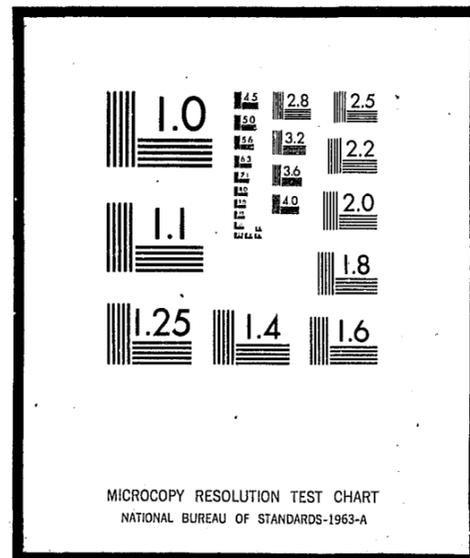


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**A STUDY OF THE
POLICE OFFICER HEIGHT REQUIREMENT**

Prepared By

The Atlanta Regional Commission
Governmental Services Department
Technical Assistance Division

October, 1973

PREFACE

As part of its continuing commitment to assist local governments in improving their operations, this report was prepared by the Technical Assistance Division of the Atlanta Regional Commission at the request of the City of Atlanta's Personnel Department. The study is one of a group of reports which will be prepared as part of a comprehensive effort to assist local governments in examining their employment practices and in evaluating various selection devices.

Terry L. Talbert of the Technical Assistance Division staff directed the design and implementation of this research project. Dr. W.W. Ronan of the Georgia Institute of Technology reviewed the preliminary and final drafts of this report. Thanks go to Richard Feehan, Andy Anderson and John Rogers for their efforts in the collection and tabulation of data.

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ABSTRACT

This study was conducted to examine the outcomes of confrontations between police officers and the public. The primary question to be answered is whether any systematic variations exist between the outcomes of confrontations involving short as opposed to tall police officers. In addition, the outcomes of confrontations was also examined with respect to the race, age and weight of the police officer involved in the interaction.

Three types of interactions were chosen for study: (1) interactions that lead to an assault on a police officer; (2) interactions that result, eventually, in a complaint of police brutality, and (3) interactions that result in an injury to a police officer.

Results indicated that the race and weight of the police officer have no effect on the number of times the officer is assaulted, complained against or injured. A slight tendency was noted for officers to be assaulted by members of their own race. The age of the officer had no effect on the number of assaults or injuries received; however, a tendency was noted for older officers to be injured by accident more often. Age appears to have a significant effect on the number of complaints of police brutality received. Older officers are more likely to have a complaint filed against them. The height of the police officer showed no relationship to the number of complaints of police brutality or the number of injuries received. However, short police officers were assaulted more frequently than taller officers.

These findings are interpreted in terms of their relevance for a justification of the police officer height requirement. Recommendations are given for future research and alternative courses of action.

CHAPTER I

BACKGROUND AND INTRODUCTION TO THE PROBLEM

Pursuant to Title VII of the Civil Rights Act of 1964, as amended, the fairness of an employee selection device resides in its application and the effect its use has on the employment opportunities of any person or group. When the use of an employee screening device results in the disqualification of a disproportionately high number of persons from minority groups, or other protected classes, the screening device is subject to close scrutiny by the Equal Employment Opportunity Commission with respect to the "job-relatedness" of the screening device and its utility as a necessary prerequisite for good job performance after hiring. In situations where disproportionate hiring occurs, "fairness" of a screening device must be demonstrated in the form of empirical evidence documenting the functional utility of the procedure or requirement as a good predictor of effective job performance; in short, a research effort is required.

The police officer height requirement has been the subject of close scrutiny by governmental agencies concerned with equal employment insofar as this requirement for employment tends to eliminate disproportionate numbers of women, Puerto Ricans, Asians and other protected classes from eligi-

bility rosters (Police Foundation, December, 1972). Central to a resolution of this problem is the question of whether persons of smaller than average physical size can perform effectively the duties of a police officer.

In an initial study by the Department of Transportation of the State of Wisconsin (Department of Transportation; State of Wisconsin, September 29, 1971) which eventually led to a review of height requirements for state troopers, it is concluded that "it would appear that the overwhelming majority of the persons involved in the law enforcement programs which will be affected by this change (lowering the height requirement) are not in favor of it." This same study goes on to say that "it is a known fact in law enforcement that a smaller officer is tested physically and more frequently than a larger officer." However, a review of available research by the Police Foundation in December, 1972, failed to support this conclusion. Their report stated that "according to our survey of the available research there are no data that conclusively relate height of a police officer to job performance".

Reviews of other studies of the height requirement by the Department of State Police, State of Michigan; Metropolitan Police Department, Washington, D.C.; Seattle Police Department, Seattle, Washington; and the Los Angeles Police Department,

Los Angeles, California, have been made. In all these studies various attempts have been made to statistically evaluate the relationship of height to effective police performance.

None of these studies has been adequate in that they all failed to demonstrate conclusive, empirical evidence in support of the height requirement. For example, the evidence reported in most of these studies is in the form of a verbal argument and, the data which are presented are given in percentage comparisons with no statistical tests of association being reported.

The rationale behind the argument in favor of retaining a police officer height requirement is based on what could be called the "psychological considerations of height." These "psychological considerations" to a large extent refer to the police officer's ability or lack of ability to project confidence to those persons with whom he has contact. Frequently this confidence is described as appearance, but it is more accurately described as "presence." "Presence" is defined as the bearing, carriage, or air of a person; a quality of poise and effectiveness. The projection of "presence" is both physical and psychological; however, the impact of "presence" upon the public is predominantly psychological. The police officer, if he is to be successful, must develop this "presence"

(Department of State Police, State of Michigan, June 11, 1973).

The conclusion arising from this argument is aptly expressed in the book, Municipal Police Administration, which states: "Height requirements for police candidates have a psychological rather than a medical basis. Apparently taller men have a more imposing appearance which, in turn, makes it necessary for them to resort to force less often".

Another "psychological consideration" that gives rise to the argument for retaining a police officer height requirement centers around the phenomenon of overcompensation by individuals of shorter stature.

Psychologists refer to such an overcompensation as the "Napoleonic Complex". This complex identifies a behavior pattern in which shorter people try to overcompensate for their self-perceived height deficiency by attempting to perform heroic or exceptional feats. This behavior pattern is recognized as a common type of over-response. While persons having this trait may be considered successful, they tend to provoke anger from persons whom they contact, and their interpersonal contacts tend to be more abrasive. Kurt Haas, in his book, Understanding Adjustment and Behavior, states that "...when the personality is made anxious by a real or imagined inadequacy, an attempt

may be made to overcome or make up for the shortcoming". When this phenomenon is considered within the context of police officer behavior, the question that must be answered is, "Is it operative and, if so, does the complex systematically manifest itself in the outcomes of interactions between police officers and the public?".

With the argument for retaining the police officer height requirement thus stated, the present study was initiated to attempt to answer three basic questions:

- (1) Are shorter police officers, due to their lack of physical stature, forced to resort to physical force more often than taller police officers?
- (2) Is the Napoleonic complex manifested in the interactions between short police officers and the public?
- (3) Are shorter police officers, due to their lack of physical size, more susceptible to physical injury?

CHAPTER II METHODOLOGY

General Research Design

The present study was conducted in Atlanta, Georgia, during the time period June 15, 1973 - September 15, 1973. The data presented in this report were taken from the files of the City of Atlanta police department and personnel office.

To answer the question of whether shorter police officers are forced to resort to physical force more often than taller officers, it was decided that the best available indication of such an effect would be found in a police department file entitled "Unruly Prisoner Reports". In the City of Atlanta, police officers are required to submit an unruly prisoner report when any physical confrontation occurs between the officer and any person he encounters while performing his duties. This report includes the officer's and suspect's name, height, race, age, weight and other circumstantial information surrounding the confrontation. Data from this file were collected for the time period of June, 1972 - June, 1973.

To test for the manifest operation of the Napoleonic complex in shorter police officers, the best available data were found in the Internal Affairs Investigation Division of the

police department under the filing title of "Complaints of Police Brutality." This file included all reports of police brutality charges and offered such information as: name, height, weight, race, age of both police officer and complainant and the final disposition of the case. Data from this file were collected for the time period of June, 1972 - June, 1973.

To answer the question of whether short police officers are more prone to injury than taller officers, data were collected from the police department file entitled, "Injured While On Duty." This file also included name, height, weight, race and age of the injured officer. Data were collected for the time period of June, 1972 - June, 1973.

For purposes of statistical comparison it was necessary to have a control group of police officers. These data were obtained from the personnel office file entitled, "Police Officer Watch Duty Roster". The Watch Duty Roster is an inclusive list of all police officers who are on patrol status. Using this list of names, data corresponding to the data collected from the other three files were collected and summarized into a profile of the Atlanta police force. All statistical comparisons were made against this profile as a control group.

The data collected from these four files were tabulated and arranged in separate contingency tables on the following row and column dimensions: height-race, height-weight, and height-age. TABLES I-IX allow visual comparisons to be made between the breakdowns of the experimental groups (Assault Group, Complaint Group, Injured Group) and the control group (Watch Duty Roster). The data in these tables are presented in percentages. For example, in TABLE I, it can be seen that the height group of 6'0" police officers was the recipient of 11.4% of all assaults on police officers while this same height group represents 17.0% of the total police force.

TABLES I-IX are presented for ease of visual comparisons. Based on the data shown in these tables, analyses were performed to test for the statistical significance of any observed differences. These statistical analyses are described in the following section.

Statistical Research Design

Chi-square (χ^2) tests were performed on the variables of height, race, age and weight, to test the significance of any observed differences between the experimental lists and the Watch Duty Roster. The Chi-square statistic, as described in Maxwell (1961), is a test of association, used mainly for qualitative data, frequencies or "counts."

In addition, tests for trends were performed for the height variable, using the linear regression model for qualitative data as given in Maxwell (1961).

Intercorrelational matrices were computed for variables within the three experimental lists. The procedure used is outlined in Kintz and Bruning's discussion of correlation techniques for dichotomous and continuous data, (1968). This analysis was performed to test the strength of association among variables within the lists; such as, the correlation between the height of an assaulted police officer and the height of the assailant.

Total	White	Black	Height
0.7	0.7	----	Below 5'7"
5.0	3.7	1.3	5'7"
13.1	11.4	1.7	5'8"
21.3	18.3	3.0	5'9"
13.3	9.0	4.3	5'10"
15.3	11.0	4.3	5'11"
17.0	13.3	3.7	5'10"
7.8	5.0	2.8	6'1"
4.3	2.3	2.0	6'2"
1.0	0.7	0.3	6'3"
0.6	0.3	0.3	6'4"
0.3	0.3	----	6'5"
----	----	----	6'6"
0.3	0.3	----	Above 6'6"
	76.3%	23.7%	TOTAL
	N=300		

Total	White	Black	Height
2.1	1.4	0.7	Below 5'7"
7.2	6.8	0.4	5'7"
15.0	11.8	3.2	5'8"
17.5	14.3	3.2	5'9"
19.3	13.9	5.4	5'10"
14.6	10.7	3.9	5'11"
11.4	9.3	2.1	5'10"
4.3	3.2	1.1	6'1"
5.7	3.6	2.1	6'2"
2.1	1.4	0.7	6'3"
0.4	0.4	----	6'4"
----	----	----	6'5"
----	----	----	6'6"
0.4	0.4	----	Above 6'6"
	77.2%	22.8%	TOTAL
	N=280		

ASSAULTED OFFICERS

TABLE I

Descriptive Comparison of Police Officers Who Were Assaulted (June, 1972 - June, 1973) as Compared With The Police Force Watch Duty Roster - Breakdown by Height and Race Into Percentages

TABLE II

Descriptive Comparison of Police Officers Who Were Assaulted (June, 1972 - June, 1973) as Compared With The Police Force Watch Duty Roster - Breakdown by Height and Weight Into Percentages

ASSAULTED OFFICERS

Height	ASSAULTED OFFICERS											TOTAL			
	Below 5'7"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"		6'5"	6'6"	Over 6'6"
Below 155	0.3	1.8	1.4	1.8	3.2	---	---	---	---	---	---	---	---	---	8.2
155	---	2.9	1.8	4.7	5.3	5.7	7.1	---	---	---	---	---	---	---	27.3
170	---	---	4.4	6.8	6.8	3.6	4.0	7.1	---	---	---	---	---	---	27.8
185	---	0.7	2.9	1.8	4.4	3.6	3.6	---	1.4	0.7	---	---	---	---	16.1
200	---	---	0.3	1.8	0.7	5.3	1.4	5.3	1.4	3.6	---	---	---	---	14.1
Over 215	---	---	---	---	---	0.3	1.4	1.4	2.1	2.1	0.3	---	---	0.3	6.5
	2.1	6.8	15.4	17.8	18.2	15.3	11.7	4.2	5.8	2.1	0.3	---	---	0.3	N=278

WATCH DUTY ROSTER

Height	WATCH DUTY ROSTER											TOTAL			
	Below 5'7"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"		6'5"	6'6"	Over 6'6"
Below 155	0.7	1.3	2.3	3.7	1.7	---	---	---	---	---	---	---	---	---	9.7
155	---	1.7	2.7	6.7	5.0	4.7	---	---	---	0.3	---	---	---	---	20.3
170	---	1.7	2.7	6.7	5.0	4.7	---	---	---	0.3	---	---	---	---	29.1
185	---	---	3.0	2.7	3.7	2.0	2.3	1.7	1.0	0.6	0.3	---	---	---	17.0
200	---	---	1.0	3.0	1.3	2.7	5.0	1.7	0.7	---	0.3	---	---	---	15.7
Over 215	---	---	---	---	---	1.0	3.0	2.0	1.0	0.6	0.3	---	---	0.3	8.2
	0.7	5.3	12.7	21.4	13.7	15.4	16.6	7.7	4.4	0.9	0.6	0.3	---	0.3	N=300

TABLE III

Descriptive Comparison of Police Officers Who Were Assaulted (June, 1972 - June, 1973) As Compared With The Police Force Watch Duty Roster Breakdown by Height and Age Into Percentages

HEIGHT	ASSAULTED OFFICERS													TOTAL	WATCH DUTY ROSTER TOTAL	
	Below 5'7"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"	6'5"	6'6"			Over 6'6"
AGE 20																2.4
21			0.4	0.4		0.4	2.2	0.7							4.1	4.7
22			0.4	0.4	0.4	1.1		1.1	0.3						3.7	5.7
23	0.3	2.2	0.7	6.1	6.8	2.9	1.4		1.4	0.4	0.4				22.6	16.2
24		1.4	3.2	1.8	1.1	2.2	0.7	0.4	0.7						11.5	11.1
25	0.3	0.4	1.1	2.9	1.8	1.1	0.4	0.4	0.4				0.3		9.1	6.1
26	0.3		2.2		2.9	1.8	2.5	0.4	0.7	0.3					11.1	10.1
27	0.3	0.7	1.8	1.1	1.4	1.4	0.3	0.4		1.1					8.5	8.4
28		0.3	0.7	1.4	2.5	0.4	0.4								5.7	4.7
29		0.3		1.1	0.4	0.7	1.1		0.4						4.0	5.7
30		0.3	0.7	0.4		0.7	0.7	0.4	0.7						3.9	3.4
31			1.1	0.4			0.3	0.4							2.2	2.0
32		0.3	0.7			0.4	0.7	0.4							2.5	2.7
33			0.7	0.3											1.0	0.7
34	0.7				0.4										1.1	1.7
35		0.3			0.4										0.7	1.7
OVER 35	0.7	1.3	1.5	1.0	1.7	0.7	0.8	0.3	0.3						8.3	10.6
	1.9	6.9	15.0	17.8	19.1	14.8	11.4	4.6	5.7	2.1	0.4				0.3	N=279 N=300

TABLE IV

Descriptive Comparison of Police Officers Who Were Injured While on Duty (July, 1972 - August, 1973) As Compared With The Police Force Watch Duty Roster Break-down by Height and Age Into Percentages

HEIGHT	COMPLAINTS OF BRUTALITY													TOTAL	WATCH DUTY ROSTER TOTAL	
	Below 5'7"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"	6'5"	6'6"			Over 6'6"
AGE 20																2.4
21																4.7
22			0.9	1.7	0.9	0.9			0.9	0.8					6.1	5.7
23		1.7		2.6	0.9		2.6								7.8	16.2
24		0.9	4.4	3.5	2.6	1.7	2.6	0.9	0.8						17.4	11.1
25			1.7	3.5	0.9	2.6	0.9								9.6	6.1
26		0.9		0.9	3.5	0.9	3.5	0.9		0.8					11.4	10.1
27			2.6			0.9	0.9			2.6					7.0	8.4
28		1.7		0.9	0.9	1.7		0.9							7.0	4.7
29		0.9		2.6			3.5								7.0	5.7
30						0.9	0.8	0.9							2.6	3.4
31				1.7											1.7	2.0
32			1.7	0.9			1.7	2.6							6.9	2.7
33					1.7										1.7	0.7
34				0.9	0.8										1.7	1.7
35																1.7
OVER 35		2.6		3.5	1.7	1.7		0.9	0.9	0.8					12.1	12.7
		2.7 11.3 22.1 13.9 11.3 16.5 16.2 3.5 5.9													N=115	N=300

Descriptive Comparison of Police Officers Who Had Complaints of Police Brutality Filed Against Them (June, 1972 - June, 1973) as Compared With the Police Force Watch Duty Roster - Breakdown by Height and Weight into Percentages

TABLE V

	COMPLAINANTS OF BRUTALITY					TOTAL
	Below 5'7"	5'7"	5'8"	5'9"	5'10"	
8.8	---	0.9	4.4	0.9	2.6	5'7"
11.2	---	---	6.1	3.4	1.7	5'8"
22.5	---	2.6	8.4	6.1	7.0	5'9"
13.9	---	1.7	4.4	3.4	4.4	5'10"
11.3	1.7	2.6	0.9	1.7	4.4	5'11"
16.5	1.8	7.0	3.4	3.4	0.9	6'0"
6.1	0.9	1.7	0.9	2.6	---	6'1"
3.5	---	0.9	0.9	1.7	---	6'2"
6.2	4.4	0.9	---	0.9	---	6'3"
	---	---	---	---	---	6'4"
	---	---	---	---	---	6'5"
	---	---	---	---	---	6'6"
	---	---	---	---	---	Over 6'6"
	---	---	---	---	---	TOTAL
N=115						7.8
						21.1
						30.5
						15.0
						17.4
						8.8

	WATCH DUTY ROSTER					TOTAL
	Below 5'7"	5'7"	5'8"	5'9"	5'10"	
0.7	0.7	---	---	---	---	Below 5'7"
5.3	---	---	1.7	2.3	1.3	5'7"
12.7	---	1.0	3.0	2.7	3.7	5'8"
21.4	---	3.0	2.7	6.7	5.3	5'9"
13.7	---	1.3	3.7	5.0	2.0	5'10"
15.4	1.0	2.7	2.0	4.0	5.7	5'11"
16.6	3.0	5.0	2.3	5.0	1.3	6'0"
7.7	2.0	1.7	1.7	2.3	---	6'1"
4.4	1.0	0.7	1.0	1.7	---	6'2"
0.9	0.6	---	0.3	---	---	6'3"
0.6	---	0.3	0.3	---	---	6'4"
0.3	0.3	---	---	---	---	6'5"
	---	---	---	---	---	6'6"
0.3	0.3	---	---	---	---	Over 6'6"
	---	---	---	---	---	TOTAL
N=300						9.7
						20.3
						29.1
						17.0
						15.7
						8.2

TABLE VI

Descriptive Comparison of Police Officers Who Had Complaints of Police Brutality Filed Against Them (June, 1972 - June, 1973) as Compared With The Police Force Watch Duty Roster - Breakdown by Height and Race Into Percentages

COMPLAINTS OF BRUTALITY			
	White	Black	Height
	---	---	Below 5'7"
	7.0	1.7	5'7"
	9.6	1.7	5'8"
	17.4	5.2	5'9"
	10.4	3.5	5'10"
	5.2	6.1	5'11"
	13.0	3.5	5'0"
	5.2	0.9	6'1"
	3.5	---	6'2"
	4.4	1.7	6'3"
	---	---	6'4"
	---	---	6'5"
	---	---	6'6"
	---	---	Above 6'6"
Total	75.7%	24.3%	TOTAL
			N=115

WATCH DUTY ROSTER			
	White	Black	Height
	0.7	---	Below 5'7"
	3.7	1.3	5'7"
	11.4	1.7	5'8"
	18.3	3.0	5'9"
	9.0	4.3	5'10"
	11.0	4.3	5'11"
	13.3	3.7	5'0"
	5.0	2.8	6'1"
	2.3	2.0	6'2"
	0.7	0.3	6'3"
	0.3	0.3	6'4"
	0.3	---	6'5"
	---	---	6'6"
	0.3	---	Above 6'6"
Total	76.3%	23.7%	TOTAL
			N=300

TABLE VII
 Descriptive Comparison of Police Officers Who Were Injured While On Duty (July, 1972 - August, 1973) as Compared With The Police Force Watch Duty Roster - Breakdown by Height and Race Into Percentages

Total	White	Black	Height
0.7	0.7	----	Below 5'7"
5.0	3.7	1.3	5'7"
13.1	11.4	1.7	5'8"
21.3	18.3	3.0	5'9"
13.3	9.0	4.3	5'10"
15.3	11.0	4.3	5'11"
17.0	13.3	3.7	5'0"
7.8	5.0	2.8	6'1"
4.3	2.3	2.0	6'2"
1.0	0.7	0.3	6'3"
0.6	0.3	0.3	6'4"
0.3	0.3	----	6'5"
----	----	----	6'6"
0.3	0.3		Above 6'6"
			TOTAL
N=300	76.3%	23.7%	

WATCH DUTY ROSTER

Total	White	Black	Height
2.4	2.4	----	Below 5'7"
8.8	7.8	1.0	5'7"
11.2	10.7	0.5	5'8"
18.5	16.0	2.5	5'9"
16.1	12.6	3.5	5'10"
14.2	9.7	4.5	5'11"
15.2	10.7	4.5	5'0"
7.8	5.8	2.0	6'1"
3.3	1.4	1.9	6'2"
1.5	1.0	0.5	6'3"
1.0	1.0		6'4"
			6'5"
			6'6"
			ABOVE 6'6"
			TOTAL
N=206	79.1%	20.9%	

INJURED OFFICERS

TABLE VIII

Descriptive Comparison of Police Officers Who Were Injured While On Duty (July, 1972 - August, 1973) as Compared With The Police Force Watch Duty Roster - Breakdown by Height and Weight Into Percentages

		INJURED OFFICERS													
Height		Below	Below	Below	Below	Below	Below	Below	Below	Below	Below	Below	Over	TOTAL	
		5'7"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"	6'5"	6'6"	6'6"
Weight	155	2.4	1.0	1.0	3.9	1.4									9.7
	155		2.9	4.9	2.9	5.3	3.9								22.8
	170	0.5	2.9	4.4	7.3	3.4	4.8	1.9	1.0	0.5					29.2
	185		1.0	1.0	1.4	2.4	2.9	4.4	1.0	1.0	0.5				15.5
	200				2.9	2.9	2.4	2.9	3.4	1.0	0.5				14.1
Over	215					0.5	2.4	3.4	3.4	1.0	0.5		0.5	8.7	
		2.9	8.8	11.3	18.4	15.4	14.5	15.0	7.3	3.5	1.4	1.0	0.5		N=206

		WATCH DUTY ROSTER													
Height		Below	Below	Below	Below	Below	Below	Below	Below	Below	Below	Below	Over	TOTAL	
		5'7"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"	6'5"	6'6"	6'6"
Weight	155	0.7	2.3	2.3	3.7	1.7									9.7
	155		1.7	3.7	5.3	2.0	5.7								20.3
	170		1.7	2.7	6.7	5.0	4.0	5.0	2.3	1.7	1.7				29.1
	185			3.0	2.7	3.7	2.0	2.3	1.7	1.0	0.3				17.0
	200			1.0	3.0	1.3	2.7	5.0	1.7	0.7		0.3			15.7
Over	215					1.0	3.0	2.0	1.0	0.6		0.3	0.3	8.2	
		0.7	5.3	12.7	21.7	13.7	15.4	16.6	7.7	4.4	0.9	0.6	0.3	0.3	N=300

TABLE IX

Descriptive Comparison of Police Officers Who Were Injured While on Duty (July, 1972- August, 1973) As Compared With The Police Force Watch Duty Roster - Breakdown by Height and Age Into Percentages.

HEIGHT	INJURED OFFICERS														TOTAL	WATCH DUTY ROSTER TOTAL	
	Below 5'7"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	6'4"	6'5"	6'6"	Over 6'6"			
AGE 20							0.5									0.5	2.4
21			0.5	0.5	0.5	0.5										2.0	4.7
22		1.0		1.5	1.9	1.9	0.5	0.5								7.3	5.7
23	1.0	1.4		1.5		1.9		1.0	1.0							7.8	16.2
24		0.5	1.5	4.4	1.9	2.5	1.9		0.5							14.2	11.1
25		0.5	0.5	1.0	1.0	1.5	0.5	1.0								6.0	6.1
26		2.4	1.0	1.0	3.5	2.5	1.9	1.4	0.5							14.2	10.1
27	0.5	0.5	2.9	1.0	0.5	1.0	1.0	1.0	0.5	0.5						9.4	8.4
28			0.5		1.9	0.5	3.5		0.5	0.5						7.4	4.7
29		1.0		1.5		1.9	1.4									5.8	5.7
30			1.4	0.5	0.5			1.5								3.9	3.4
31				0.5												0.5	2.0
32		0.5	1.0	1.0			0.5									3.0	2.7
33			0.5	0.5	0.5											1.5	0.7
34		0.5		1.0	0.5		1.0	0.5			0.5					4.0	1.7
35					0.5				0.5							1.0	1.7
OVER 35	1.0	0.5	1.5	2.5	2.5	0.5	2.5	0.5								11.5	12.7

CHAPTER III

RESULTS - HEIGHT DATA

Assaults on Police Officers

TABLE X shows the frequency distribution by heights of the Assaulted Police Officer Group and the frequency distribution by heights of the police department Watch Duty Roster. For statistical purposes it was necessary to collapse some of the cells into larger categories. Chi-square analysis yielded a $\chi^2 = 13.59$; 9df, not significant. Thus, no overall effect was observed. However, since the proportions of the contingency table were in the "effect" direction, a trend test for linear regression was performed. This test was also not significant ($b_{xy} = -.0124$ and $b_{xy} = -.3025$); the sources of variation and corresponding χ^2 values are shown in TABLE XI.

Having observed no effect in the first two tests, the middle range of heights was ignored and Chi-square analysis was performed for the two tails of the distribution, i.e., heights below 5'9" and above 5'11". Chi-square was significant ($\chi^2 = 101.78$; 1df, $p < .05$), indicating an effect was present in the tails of the distribution (TABLE XII).

A correlational matrix was computed for data within the Assault Group, the variables being: height, race, sex, weight

TABLE X

Distribution by Height of the Assaulted Police Officer Group and the Watch Duty Roster

	HEIGHT										Total
	Below 5'7"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'2"	6'3"	Over 6'2"	
Assaulted Police Officer Group	6	19	42	48	53	42	32	12	16	8	278
Watch Duty Roster	2	16	38	64	41	46	50	23	13	7	300*

²
*X = 13.59; 9df, not significant.

TABLE XI

Trend Test for Linear Regression on the Distribution by Height of the Assaulted Police Officer Group and the Watch Duty Roster

Source of Variation	DF	² X	P level
Due to Linear Regression	1	1.48	N.S.
Departure from Regression	8	12.11	N.S.
Overall Value	9	13.59	N.S.

TABLE XII

Distribution of Heights Below 5'9" and Above 5'11" of the Assaulted Police Officer Group and the Watch Duty Roster

	HEIGHT		
	Below 5'9"	Above 5'11"	Totals
Assaulted Police Officer Group	67	68	135
Watch Duty Roster	56	93	149*

²
*X = 101.78; 1df, Sig; p < .05.

and age of the assaulted police officer; race, sex, age and height of the assailant; whether or not the officer was injured and the charge against the assailant. Correlation coefficients within this matrix are given in APPENDIX A. All coefficients were low; however, it is interesting to note the low correlation between the height of the assaulted police officer and the height of the assailant ($r_{xy} = .08$, mean height of assaulted officer = 70.08, mean height of assailant = 68.75).

Complaints of Police Brutality

No systematic relationship was observed for the Complaints of Police Brutality Group and the heights of the officers involved. TABLE XIII shows the frequency distribution by heights of the "Complaints of Police Brutality Group" and the frequency distribution by heights of the police department Watch Duty Roster. Chi-square analysis yielded a $\chi^2 = 6.51$; 8df, not significant.

The middle range of heights was once again ignored, as in the analysis of the Assault Group, and the two tails of the distribution were tested. Results were not significant ($\chi^2 = .01$; 1df, not significant, TABLE XIV). Thus, no support was found to indicate the manifest operation of a Napoleonic complex in the interactions between short police officers and the public.

TABLE XIII

Distributions by Height of the Complaints of Police Brutality Group and the Watch Duty Roster

	HEIGHT									Totals
	Below 5'8"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	Over 6'2"	
Complaints of Police Brutality Group	10	13	26	16	13	19	7	4	7	115
Watch Duty Roster	16	38	64	41	46	50	23	13	7	298*

²
*X = 6.51; 8df, not significant.

TABLE XIV

Distributions of Heights Below 5'9" and Above 5'11" of the Complaints of Police Brutality Group and the Watch Duty Roster

	HEIGHT		Totals
	Below 5'9"	Above 5'11"	
Complaints of Police Brutality	23	37	60
Watch Duty Roster Group	56	93	149*

²
*X = .01; 1df, not significant.

The correlational matrix for data within the Complaints of Police Brutality Group is shown in APPENDIX B. The heights of police officers in the Complaint Group did not correlate with the final disposition of the case* ($r_{xy} = -.05$).

Police Officers Injured While On Duty

TABLE XV shows the frequency distribution by heights of the police officers who were injured while on duty and the frequency distribution by heights of the police department Watch Duty Roster. Chi-square analysis showed insignificant results ($\chi^2 = 6.40$; 8df, not significant). Ignoring the middle range of heights, the analysis was once again performed. No significant effect was observed ($\chi^2 = 1.18$, 1df; not significant, TABLE XVI).

The correlational matrix for data within the Injured While On Duty Group is shown in APPENDIX C. None of the coefficients indicated strong relationships.

*The disposition of the case was coded as: 1 = cleared and 2 = reprimanded.

TABLE XV

Distributions by Height of the Injured While On Duty Group and the Watch Duty Roster

	HEIGHT									Totals
	Below 5'8"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	Over 6'6"	
Injured While On Duty Group	24	23	38	32	30	31	15	7	6	206
Watch Duty Roster	18	38	64	41	46	50	23	13	7	300*

* $\chi^2 = 6.40$; 8df, not significant.

TABLE XVI

Distributions of Heights Below 5'9" and Above 5'11" of the Injured While on Duty Group and the Watch Duty Roster

	HEIGHT		Totals
	Below 5'9"	Above 5'11"	
Injured While On Duty Group	47	59	106
Watch Duty Roster	56	93	149*

* $\chi^2 = 1.18$; 1df, not significant.

CHAPTER IV RESULTS-PERIPHERAL DATA

Peripheral data collected during the course of the height requirement study will be presented in this section. Although these data do not directly relate to the study of the height requirement, there is meaning in terms of the interpretation of data presented in the preceding chapter of this report.

AGE

Analysis of the difference between the distributions of ages in the Injured While On Duty Group and the Assaulted Police Officer Group as compared to the distribution of ages in the Watch Duty Roster Group showed no significant effects (TABLES XVII and XVIII). However, an effect was observed ($\chi^2 = 13.06$; 6df, $p < .05$) between the Complaints of Police Brutality Group and the Watch Duty Roster Group (TABLE XIX). These data indicate the trend that older police officers are more frequently the recipients of complaints of police brutality. In light of these data it is interesting to note that age correlated negatively with the final disposition of the case (whether the officer received a reprimand) in the Complaints of Police Brutality Group ($r_{xy} = -.20$, APPENDIX B). It should be pointed out that this coefficient is too low to infer sig-

TABLE XVII

Distribution by Age of the Injured While on Duty Group and the Watch Duty Roster

	AGE							Totals
	20-22	23-24	25-26	27-28	29-30	31-32	Over 32	
Injured While On Duty Group	20	45	41	34	20	8	34	202
Watch Duty Roster	21	65	51	55	31	16	58	297*

²
*X = 2.90; 6df, not significant.

TABLE XVIII

Distributions by Age of the Assaulted Police Officer Group and the Watch Duty Roster

	AGE							Totals
	20-22	23-24	25-26	27-28	29-30	31-32	Over 32	
Assaulted Police Officer Group	11	73	57	55	27	17	39	279
Watch Duty Roster	21	65	51	55	31	16	58	297*

²
*X = 6.84; 6df, not significant.

TABLE XIX

Distribution by Age of The Complaints of Police Brutality Group
and the Watch Duty Roster

	AGE						Totals
	Under 24	24-26	26-28	28-30	30-32	Over 32	
Complaints of Police Brutality Group	16	31	21	16	5	26	115
Watch Duty Roster	86	51	55	31	16	58	297*

²
*X = 13.06; 5df, p < .05.

nificance.

RACE

TABLES XX, XXI and XXII show the frequency distributions by race for the three experimental groups and the Watch Duty Roster. Chi-square analyses yielded no significant effects, indicating that police officers of either race are assaulted, complained against, and injured at the same relative frequency rate.

Inspection of the correlational matrices for the three experimental conditions (Assaults, Complaints, and Injuries) indicates that when a confrontation occurs between a police officer and a citizen there is a slight tendency for the officer and the citizen to be of the same race. In the Assaulted Police Officer Group, race of the officer and race of the assailant showed a mild correlation ($r = .17$. APPENDIX A). Likewise, the correlation in the Assaulted Police Officer Group of the race of the officer and the complainant was .21 (APPENDIX B) and in the Injured While On Duty Group the correlation was .23 (APPENDIX C). Although these three corre-

TABLE XX

Distribution by Race of the Assaulted Police Officer Group
and the Watch Duty Roster

	RACE		
	Black	White	Total
Assaulted Police Officer Group	64	216	280
Watch Duty Roster	71	229	300*

* $\chi^2 = .06$; 1df, not significant.

TABLE XXI

Distribution by Race of the Complaints of Police Brutality
Group and the Watch Duty Roster

	RACE		
	Black	White	Total
Complaints of Police Brutality Group	28	87	115
Watch Duty Roster	71	229	300*

* $\chi^2 = .00$; 1df, not significant.

TABLE XXII

Distribution by Race of the Injured While on Duty Group and the Watch Duty Roster.

	RACE		
	Black	White	Total
Injured While On Duty Group	42	164	206
Watch Duty Roster	71	229	300*

* $\chi^2 = .76$; 1df, not significant.

lations are not very high, they are all in the same positive direction. The meaning of this trend is not clear. It was originally thought this this effect could be due to the selective assignment of police officers to areas of town where the racial composition of the community is predominantly white or black corresponding to the race of the police officer. However, officials in the police department have indicated that selective assignment with respect to race is not commonly practiced in the assignment of officers to areas of town. The observed trend, therefore, cannot be interpreted without further research.

The observed correlation of .18 between the race of the police officer and the final disposition of the cases in the Complaints of Police Brutality Group is not statistically significant. Incidentally, race of the complainant did not correlate with the final disposition of the case ($r = -.03$, APPENDIX B).

WEIGHT

No significant effects were observed for the weight of a police officer in the three experimental conditions, TABLES XXIII, XXIV and XXV. Profile data showed the average weight of a police officer to be 169.3 pounds, average age to be 28.1 years, average height to be 71.3 inches.

TABLE XXIII

Distribution by Weight of the Assaulted Police Officer Group and the Watch Duty Roster

	WEIGHT							Totals
	Under 141	141- 155	156- 170	171- 185	186- 200	201- 215	Over 215	
Assaulted Police Officer Group	27	73	76	45	38	12	7	278
Watch Duty Roster	29	61	87	51	47	19	6	300*

²
*X = 4.08; 6df, not significant.

TABLE XXIV

Distribution by Weight of the Complaints of Police Brutality Group and the Watch Duty Roster

	WEIGHT							Totals
	Under 141	141- 155	156- 170	171- 185	186- 200	201- 215	Over 215	
Complaints of Police Brutality Group	9	24	35	17	20	4	6	115
Watch Duty Roster	29	61	87	51	47	19	6	300*

²
*X = 4.98; 6df, not significant.

TABLE XXV

Distribution by Weight of the Injured While on Duty Group and the Watch Duty Roster.

	WEIGHT							Totals
	Under 141	141- 155	156- 170	171- 185	186- 200	201- 215	Over 215	
Injured While on Duty Group	20	47	60	32	29	11	7	206
Watch Duty Roster	29	61	87	51	47	19	6	300*

* $\chi^2 = 1.64$; 6df, not significant.

CHAPTER V DISCUSSION

Assaults on Police Officers

Although the overall trend test of linear regression showed no systematic relationships in this group, the difference in the number of assaults on police officers whose heights are above 5'11" as compared with police officers whose heights are below 5'9" was statistically significant ($p < .05$). Apparently, police officers below 5'9" were assaulted with a somewhat greater frequency than police officers above 5'11" for the time period studied of June, 1972 - June, 1973. This finding is not consistent with several previous studies which have found a bimodal distribution of assaults with the shortest and tallest police officers receiving the greatest number of assaults and is, therefore, more easily interpreted as a systematic relationship.

The problem of "restriction of range" (the fact that the present analysis did not include a substantial number of police officers below 5'7") prohibits an inference as to what the assault rate might be for officers below this height. The present analysis does indicate that this height group might be subject to a greater number of assaults relative to the assault

rate of taller officers; however, this assumption is speculative since there is an absence of empirical data.

There was no correlation between the height of an assailant and the height of the police officer ($r_{xy} = .08$). Likewise, the number of assaults showed no relationship to the age of the police officer ($\chi^2 = 6.84$; not significant) and, as noted before, the race of the police officer had no effect on the number of assaults experienced, number of complaints of brutality received, or the number of injuries incurred while on duty ($\chi^2 = .06, .00, .76$ respectively, not significant). A slight tendency was observed for police officers to be assaulted, complained against and injured by members of their own race ($r_{xy} = .17, .21, .23$ respectively).

Complaints of Police Brutality

There seems to be no relationship between the heights of police officers and the number of complaints of police brutality received ($\chi^2 = .01$; not significant). If the Napoleonic complex is present in short police officers, it appears not to be manifested in the interactions between short police officers and the public that eventually lead to complaints of police brutality. The low correlation ($r_{xy} = -.05$) between the heights of police officers and the final disposition of a

complaint case adds evidence to this conclusion. This analysis was necessary in that it was thought possible that taller police officers might unjustly receive more complaints of brutality due to the intimidating effect their height could have on a potential complainant. The evidence as reflected in the outcomes of investigations by the Police Department Internal Investigation Division proved this not to be the case as demonstrated by the fact that taller and shorter police officers are reprimanded and cleared of charges of brutality with the same relative frequency rate.

The age of the police officer showed a relationship to the number of complaints of police brutality received with older officers being complained against significantly more often ($X^2 = 13.06$; $p < .05$).

Police Officers Injured While on Duty

Results of the present study indicate that no relationships exist between the heights of police officers and their injury rate while on duty ($X^2 = 6.40$; not significant). Age, also, showed no relationship to injury rate ($X^2 = 2.90$; not significant).

There was, however, a slight tendency for older police officers to be injured by accident (as opposed to being injured by another person) somewhat more often than younger officers ($r_{xy} = .18$).

xy

CHAPTER VI RECOMMENDATIONS

With respect to the height requirement for police officers in the City of Atlanta it has been demonstrated in this study that the number of complaints of police brutality and the number of injuries incurred while on duty bear no relationship to the height of the police officer. The number of assaults on police officers, however, was shown to occur more frequently among officers of shorter heights.

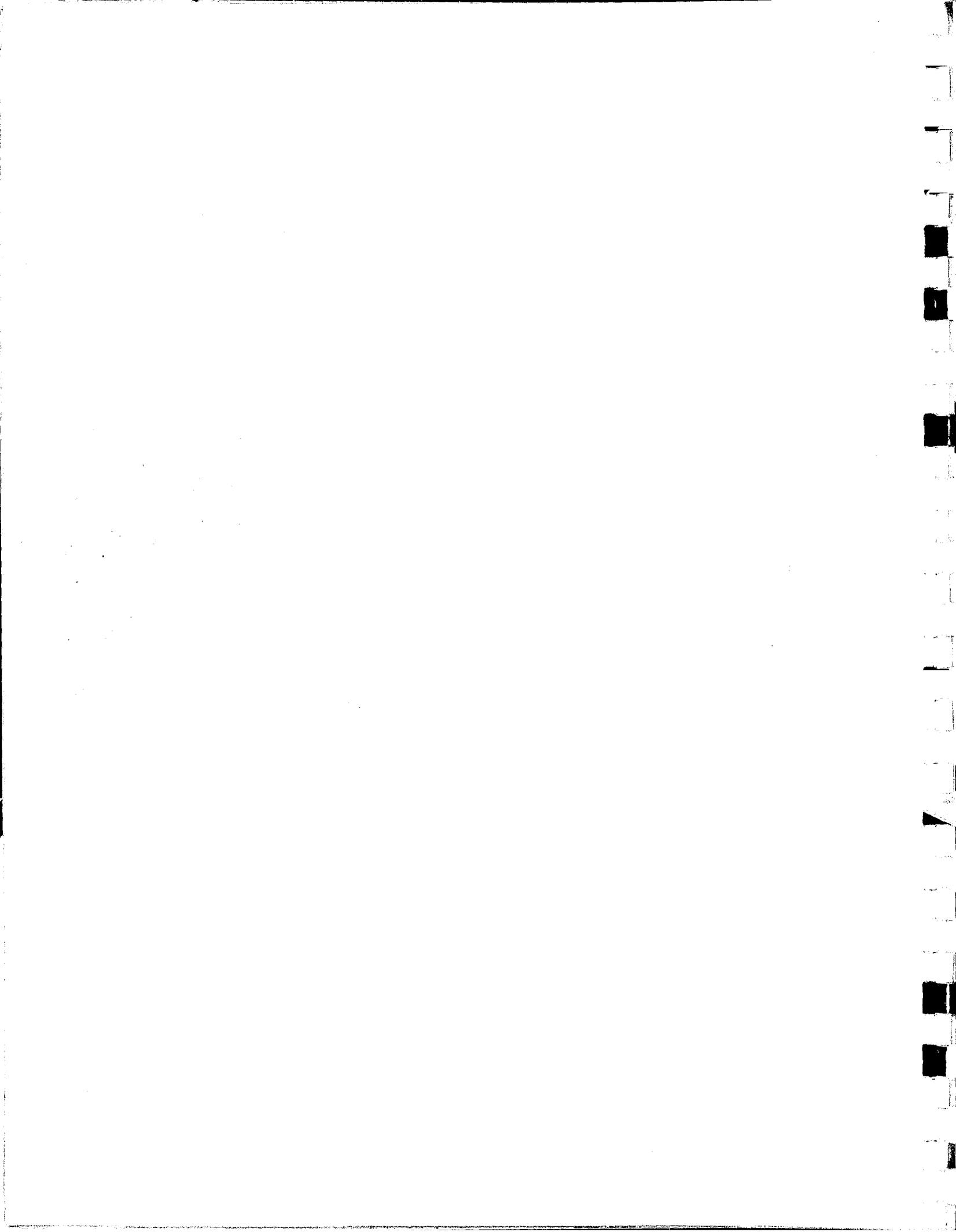
It appears that the data presented in this study are not sufficient evidence to justify a height requirement for police officers. At present the height requirement for police officers in the City of Atlanta has been abolished and shorter persons are being hired for the police officer job. Since this will increase the range of the distribution of heights and will, therefore, increase the sensitivity of an analysis of the height requirement, it is recommended that the job performance of newly-hired police officers be systematically recorded during the upcoming year or at least until such time as the number of officers in this group is sufficient to make an analysis meaningful.*

*The best possible experimental design would be to match newly-hired police officers into two groups accordingly to height. Newly-hired officers whose height is below 5'7" would constitute one group while the other group would be composed of newly-

The findings of the present study do indicate that this new group of police officers whose height is below 5'7" could be subject to a significantly greater number of assaults than the remainder of the police force. A future analysis and documentation of this possible outcome would serve as justification for three possible courses of action:

- (1) to restrict the use of shorter police officers to some capacity that would not expose them to potential confrontations with the citizenry,
- (2) to initiate special training for short police officers to better equip them with the means to deal with possible assault, or
- (3) to reinstate the height requirement; possibly increase it.

hired officers whose height is over 5'7". Records of assaults, complaints and injuries could be recorded and the two groups could be compared after one year on the job. An analysis of data collected by this procedure would result in a more definitive study of the height requirement.



CONTINUED

1 OF 2

APPENDIX A

Correlational Matrix of Variables Within The Assaulted Police Officer Group

Variable 1 = height of officer	Variable 7 = race of assailant
Variable 2 = race of officer	Variable 8 = sex of assailant
Variable 3 = sex of officer	Variable 9 = age of assailant
Variable 4 = age of officer	Variable 10 = height of assailant
Variable 5 = injured or not injured	Variable 11 = weight of officer
Variable 6 = charge (drunk - not drunk)	

Variable No.		1	2	3	4	5	6	7	8	9	10	11
1			.06	-.33	-.04	.03	.01	-.04	.08	.03	.08	.59
2				.01	-.14	.08	.07	.17	-.08	.06	.03	-.13
3					.07	.04	.03	.05	.13	.09	-.02	-.23
4						.07	-.02	-.01	-.04	-.15	.04	.05
5							-.02	.00	.00	.03	-.05	-.02
6								.26	.04	-.17	-.13	-.07
7									-.10	-.18	.12	-.04
8										.04	-.51	.07
9											-.05	-.06
10												.01
11												

APPENDIX B

Correlational Matrix of Variables Within The Complaints of Police
Brutality Group

Variable 1 = height of officer	Variable 5 = sex of complainant
Variable 2 = race of officer	Variable 6 = disposition of case
Variable 3 = sex of officer	Variable 7 = weight of officer
Variable 4 = race of complainant	Variable 8 = age of officer

	Variable No.							
	1	2	3	4	5	6	7	8
1		.02	*	-.04	.00	-.05	.61	-.03
2			---	.21	-.15	.18	-.08	-.06
3				----	----	----	----	----
4					.21	-.03	-.18	-.10
5						-.13	-.07	.06
6							-.06	-.20
7								.03
8								

*Coefficient was not computed due to a zero divisor.

APPENDIX C

Correlational Matrix of Variables Within The Injured While On Duty Group

Variable 1 = height of officer	Variable 7 = race of assailant
Variable 2 = race of officer	Variable 8 = sex of assailant
Variable 3 = sex of officer	Variable 9 = age of assailant
Variable 4 = age of officer	Variable 10 = how injured (assault - accident)
Variable 5 = injury (minor - major)	Variable 11 = weight of officer
Variable 6 = charge (drunk - not drunk)	

	Variable No.										
	1	2	3	4	5	6	7	8	9	10	11
1		.19	-.43	-.06	.03	.01	-.07	-.08	-.07	-.02	.64
2			-.04	-.23	.01	-.08	.23	.08	-.06	.01	.07
3				.13	-.03	.06	.07	-.04	.31	.13	-.04
4					.00	.15	.02	-.03	-.08	.18	-.04
5						.10	-.01	-.01	.32	-.04	-.04
6							-.03	-.27	-.19	.07	.03
7								.14	.02	.17	.02
8									.16	-.15	.17
9										-.11	-.11
10											-.08
11											

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