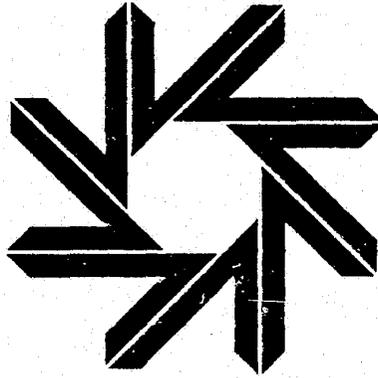


A Study Of Inmate Assaults In Major Institutions



THE VIRGINIA DEPARTMENT OF CORRECTIONS
DIVISION OF ADMINISTRATION
BUREAU OF RESEARCH, REPORTING AND EVALUATION

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Inquiries concerning the report should be directed to the Bureau of Research, Reporting and Evaluation.

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ACQUISITIONS

EXECUTIVE SUMMARY

This report, completed in March, 1977, was a study of the assault situation in four major institutions. The study covered the period from January 1, 1974 through August 30, 1976 and included the correctional institutions of Southampton, Penitentiary, Powhatan/James River and Bland.

There were 630 reported assaults in these institutions during the time period involved. The average number of assaults per hundred inmates was less than one. In other words, monthly, less than one inmate in every hundred commits an act of violence, at the four institutions. During this time period, the number of assaults have neither risen nor declined significantly, either proportionately or actually.

The factors studied which most significantly impacted the assault rate were supervision and location. The measure of supervision was the number of prisoners per guard and location was indicated by particular institutions. An inverse relationship was found between the number of guards and the incidence of attack. Simply stated, as the number of prisoners per guard rose, the number of assaults rose correspondingly. Forty-nine percent of the variation in assaults could be explained by fluctuations in the prisoner per guard ratio.

Variations in assaults were also related to the size and population peculiarities of each institution involved. What was indicated was that the populations at different institutions were different in nature. Classification procedures tend to reinforce this conclusion. The fluctuations were also due in part to the varying size of institutions.

INTRODUCTION

There is an inherent conflict present within any system of criminal justice. This conflict is based on the fact that people within a correctional institution are there against their will. Some of these people are prisoners because of acts of violence, acts in opposition to society's preconceived norms which justified their segregation from the remainder of the populace. Society's response to potentially harmful individuals is to confine them to a place away from others. It is not surprising, then, that the same outbreaks of violence which occurred outside the correctional institution also occur within them. The offender within the correctional facility in reality is not confined to a place where others can not be harmed, for the offender is not in isolation within the institution. Instead, the prisoner has constant contacts with other people (e.g., other prisoners, and the correctional officer staff).

A problem of the correctional system, then, is to control and possibly reduce the incidence of violence on the part of the prisoner. Society's response was to confine the offender from the majority of the population. Yet the correctional institution can not do likewise. Generally, a prisoner can not be placed in total isolation, for this is termed "cruel and unusual punishment" by society. Thus the other possibility for controlling someone with a record of violence, and/or confined against his will, is to guard him closely. Ideally, by employing a staff of guards to prevent attacks, fights, etc., through constant supervision, the correctional institution can control the offender. However, the

question arises as to exactly how many guards are required to keep order: one for each prisoner, one for each 10 prisoners, etc.? Because each additional correctional officer strains the correctional system's limited budget, it becomes important to know how many guards are required. The assumption is that if there are too few guards, the incidence of attack is great, while if there are too many guards, the cost becomes prohibitive. Is there a relation between the number of guards and the incidence of attack?

This study intends to document through statistical methods whether increased correctional staff expenditures are justified by a resulting lower attack rate. Perhaps additional correctional officers do not reduce the number of attacks. Hiring more guards, therefore, would be a financial waste. Perhaps additional guards only change the nature of the attacks from prisoner on prisoner to prisoner on guard. This may occur because there are more guards in contact with the prisoners. Finally, it may be that the additional guards do lower the number of attacks. If this is true, then, it becomes an administrative decision as to what level of staff expansion is acceptable within a limited budget. This decision is beyond the scope of this study. However, this study may aid those responsible in such a future decision.

DATA SOURCES COVERAGE

This report contains monthly information for four major institutions, the James River/Powhatan Correctional Center, State Penitentiary, Bland Correctional Center and Southampton Correctional Center for the time period of January 1, 1974 through August 31, 1976. St. Brides Correctional Center and Staunton Correctional Center are not included in this study since both of these facilities are relatively new and consistent data back to 1974 is not available. Information on an individual basis for field units is not available. To conduct this type of study, grouping all field units together and doing any analysis on that basis would be very misleading.

ATTACKS

There are three types of attacks with which this report is concerned (Division of Adult Services 1973 guidelines):

1. Assaulting an employee or new inmate;
2. Making forcible homosexual advances;
3. Fighting or assaulting another inmate.

Over the years the definition of these offenses has altered somewhat. For example, the 1976 guideline offenses are:

1. Assaults upon any person;
2. Making forcible homosexual advances;
3. Fighting with any person.

These above offenses are recorded for this report as attacks either on inmates or guards. Because of these changes in the definition of offenses, there can be no distinction made between the exact offenses committed. For example, what was in 1973 an assault on an employee became, in 1976, merely an assault on any person.

The source of prisoner attack information is the reports of the adjustment committee hearing prepared by the Inmate Hearing Advisor Staff. The files of the Chief of the Hearing Section were checked against central records adjustment reports for 1976 and found to be more accurate. There are some months for certain institutions where there are not adjustment hearing reports (due to staff turnover, vacation, illness, etc.). These months are excluded, as indicated in Table I.

TABLE I
NUMBER OF MISSING MONTHS FOR INSTITUTIONS BY YEAR

	JAMES RIVER/ POWHATAN	PENITENTIARY	BLAND	SOUTHAMPTON	TOTAL
1974	3	1	1	0	5
1975	2	1	0	0	3
1976	0	2	0	0	2
TOTALS	5	4	1	0	10

Limitations and Constraints

First, only those offenses which came to the adjustment committee hearing procedure are counted. It is felt that such incidents are more

serious in nature than those which are handled by the officer in charge.

Only those incidents where the inmate was found guilty by the adjustment committee are included in this study, regardless of the reason for the dismissal. There is one exception to this procedure. In the case of more serious offenses, the adjustment committee can decide only on probable cause and then refer the case either to the State Police or the Commonwealth Attorney for further investigation or prosecution. A finding of probable cause is included in this study.

Finally, there is the problem of what actually constitutes an attack as reported in this study. Each adjustment report is handled as an attack. By counting the number of adjustment reports issued for a certain time period, one would assume then that if there were five fights, this would constitute five attacks and thus five adjustment reports. This is not the case.

An adjustment report is issued for each participant in each attack, consequently, if there were one fight with six participants there would be six adjustment reports issued. Thus, if the adjustment reports are inferred to be reports on attacks, the number of offenses reported becomes greatly inflated. For example, in February, 1976, Southampton reported eleven attacks and the Penitentiary four. Actually, there were only six incidents of violence at Southampton and four incidents at the Penitentiary. Due to this methodological inflation factor (number of participants versus number of attacks) Southampton would seem incorrectly to have almost three times more incidents of violence than the Penitentiary.

It is important, therefore, to realize that the statistics on attacks examined in this report reflect the number of participants in institutional

violence rather than the incidence of such violence (number of attacks). Once this dichotomy between definitions of "attacks" is recognized, the nature of the statistics offered in this report can be better interpreted. Certainly a fight with ten participants is more serious than a fight between two people. Assuming a list of adjustment reports to be the number of attacks, the casual observer is greatly inaccurate and is inflating the real level of violence in Virginia's correctional institutions.

CORRECTIONAL OFFICER STAFF

The correctional officer staff for each institution includes all correctional officers assigned to that facility regardless of rank. The information on institutional guard turnover was obtained through payroll records of appointments and separations. Since there is no readily available source of information to check the accuracy of personnel records, payroll was felt to be the most reliable source for these figures.

Taking the difference between the list of approved correctional officer positions for each institution as of July 1, 1976 and the vacancy list for that time, the actual staff at these institutions was derived for June, 1976. Adjusting these figures monthly for the separations and appointments, the correctional force for each institution was derived. The problems with this method are numerous. However, this was the best information available, given the time constraints imposed on this study.

PRISON POPULATION

Prison population for institutions includes all inmates within an institution except those on work release or in receiving units. Approximately half of the information used to determine institutional

population is derived from the Average Monthly Population Reports provided by the Bureau of Research, Reporting and Evaluation. The other half is derived from the daily institutional head count sheets, adjusted to average monthly population.

There are some discrepancies between these two sources of information because the average monthly population reports are based on only work day counts and the daily head counts are made for every calendar day. However, the discrepancies are minor and not statistically significant.

STATISTICAL METHODOLOGY

The data were analyzed through two correlation techniques, partial and non-parametric. Correlation analysis provides a technique for measuring the linear relationship between two variables by describing the strength of that association (correlation coefficient).

Partial correlation provides the researcher with this measure of association while adjusting or controlling for the effects of one or more additional variables. For example, a partial correlation coefficient for the assaults and the prisoner/guard ratio at certain institutions would explain the relationship between assaults and a corresponding prisoner/guard ratio by eliminating the effects of the different types of prisoners at the various institutions.

Non-parametric correlations do not assume a normal distribution (Bell Curve) of the variables being analyzed. It is to be expected that the variable analyzed in this study would not be normally distributed among the population. The prisoner/guard ratio fluctuates between institutions and within institutions depending on the conditions extraneous to this study.

There are two types of correlation coefficients, Kendall's Tau and Spearman Rho. Each of these procedures has a correction for ties, and there is no fixed rule about selecting one over the other. The coefficients presented in the Results Section are Spearman Rho (R). A description of the calculation of Spearman Rho will not be presented here. It is readily available in any statistics journal.

The correlation coefficient squared represents the percentage of the variance in a particular variable which can be explained by another variable. For example, if, in considering assaults and institutions as two variables, the correlation coefficient is .6, then 36% ($.6^2$) of the variance in the number of assaults can be explained by institutional differences.

It is important to remember that correlation is not causation. If assaults drop as the prisoner/guard ratio drop, it would be proper to assume that when there are more correctional officers per inmate there will be less assaults. It would not be appropriate to say that the prisoner/guard ratio causes assaults.

RESULTS

General

There were 630 reported assaults in the four institutions for the two and one-half years that this study covers. Only 7% (44) of these assaults were a result of prisoner attacks on guards. With such a small number of attacks on guards, it is impossible to analyze any significant changes in the nature of assaults. The average number of prisoners per guard in these institutions is 2.92 and the median number is 2.99.

MONTHLY STATISTICS

Mean number of assaults	5.00
Average number of assaults (per hundred inmates)	.88
Median number of assaults (per hundred inmates)	.72
Average number of prisoner on prisoner attacks (per hundred inmates)	.83
Median number of prisoners on prisoner attacks (per hundred inmates)	.63

As can be seen in the above statistics, the number of assaults, both total and prisoner on prisoner is less than one for every one hundred inmates. Or, in other words, less than one inmate for every one hundred inmates a month commits an act of violence within Virginia correctional institutions.

NON-PARAMETRIC CORRELATIONS

	Significance	Coefficient
The prisoner/guard ratio with turnover	.010	.2125
Assaults with prisoner/guard ratio	.001	.4087
Prisoner/prisoner assaults with guard ratio	.001	.4394
Assaults with correctional facility	.001	.5757
Prisoner/guard ratio with correctional facility	.074	-.1339

As would be expected, the prisoner/guard ratio is significantly correlated with guard turnover at the institution. The interesting correlations, however, are those involving assaults. Assaults are strongly correlated with both the prisoner/guard ratio and with the institutions. With the correlation of the prisoner/guard ratio to correctional institution it became necessary to perform a partial correlation to discern the exact relationship which exists between assaults, the prisoner/guard ratio, and the institution.

ZERO ORDER PARTIAL CORRELATIONS

	Significance	Coefficient
Assaults with prisoner/guard ratio	.001	.4670
Assaults with correctional institution	.001	.5711
Prisoner/guard ratio with correctional institution	.447	-.0125

FIRST ORDER PARTIAL CORRELATIONS

Assaults with the prisoner/guard ratio controlling for institution	.001	.5777
Assaults with correctional institutions controlling for the prisoner/guard ratio	.001	.6526

As can be seen the coefficients of both relationships have risen dramatically when the other variable was used as a control. This would indicate that the variables, the prisoner/guard ratio and correctional institutions, are related in different ways to assaults. Since there is a significantly positive correlation between the guard ratio and assaults, this would indicate that as the number of prisoners per guard rises, the number of assaults rises accordingly. Forty-nine percent of the variance in the number of assaults can be explained by fluctuations in the prisoner/guard ratio. The high correlation with institutions indicates that various institutions have differences in prisoner populations

which result in differences in the number of attacks. This latter correlation will be examined further in the statistics on individual institutions.

Neither the absolute number of assaults nor the assaults per population were significantly related to the year (.118 and .297, respectively). This indicates that assaults have not risen nor declined over the two and one-half years under consideration.

It is important to look at the assaults situation by individual institutions, to better understand the general situation at Virginia correctional institutions.

TABLE II
MONTHLY STATISTICS BY INSTITUTION

	<u>JAMES RIVER/ POWHATAN</u>	<u>PENITENTIARY</u>	<u>BLAND</u>	<u>SOUTHAMPTON</u>
Mean # Assaults	3 (2.7)	7 (6.67)	2 (2.16)	9 (.47)
Median # Assaults	2	8	2	10
Mean # Assaults/100 Inmates	.30	.75	.55	1.81
Median # Assaults/100 Inmates	.23	.83	.44	1.83
Mean Prisoner/Guard Ratio	2.49	2.61	3.34	4.74
Median Prisoner/Guard Ratio	2.59	2.58	3.12	4.72

James River/Powhatan and Penitentiary

These institutions are the focal point of concern for the Department of Corrections for there have been two court cases involving the incidence of assaults at these facilities - Woodhouse vs. Virginia (James River/Powhatan) and Carol vs. Jones (Penitentiary).

NON-PARAMETRIC CORRELATIONS

	PENITENTIARY		JAMES RIVER/ POWHATAN	
	Sig	Coefficient	Sig	Coefficient
Assaults with Institution Assaults/Population within the Year	.001	.5835	.010	.4437
Assaults within the year	.020	.3880	.140	.4213
Assaults with Prisoner/Guard Ratio	.006	.4650	.008	.4628
Prisoner/Guard Ratio within the Year	.001	.5682	.123	.2308
	.001	.7162	.001	-.4388

It is interesting to note in the above statistics that assaults at Powhatan/James River are not significantly correlated with the prisoner/guard ratio. This could be due to many factors, such as changes in the type of inmate now confined.

DISCUSSION

There are two major results in this report which merit further discussion. The correlation between assaults and institution is the first. Based on the number of assaults in institutions, Southampton has the highest monthly average, followed closely by the Penitentiary. This is due in part to institutional differences. Southampton has a large number of fights involving more than two people (inflating the assault count). This can be attributed to the nature of the inmates confined there. It is a correctional facility which houses young first offenders, who tend to be less adjusted to institutional living. The Penitentiary is a maximum security facility where prisoners with long sentences are housed. Therefore, classification procedures pre-determine that persons more prone to behavioral problems are located within the same institution.

The second result is the high correlation between assaults and the prisoner/guard ratio. There is a positive relation between the number of prisoners per guard and the incidence of attack. Speculation as to the exact nature of this relation (arithmetic, geometric, curvilinear, etc.) can not be addressed at this time. It is sufficient to say that supervision plays an important part in the reduction of violence within Virginia correctional facilities.

As with any system of confinement, the Virginia correctional system has its problems. To some extent these problems are inherent in the nature of the service they provide and to some extent they can be controlled or eliminated within the institution. The Department of Corrections

has taken many measures to stem the incidence of attacks within their major institutions - closed-circuit television, increased correctional officer staff, unannounced inspections, educational opportunities, etc. These are ongoing efforts to which the Department has committed itself in an effort to make institutional living a more palatable situation for those involved.

It is important to realize that these measures have had an impact on the incidence of violence in correctional facilities which has not been discussed in this report. To analyze the impact of all of these factors would require a very sophisticated research model. At this time, the data to perform such an analysis are either non-existent or at the least extremely time consuming to collect. This data problem is compounded by the nature and volume of the data needed by the Department to perform its daily functions. Any additional data collection becomes a considerable burden.

The second problem with research on violence in institutions is a function of the source itself. This report is based on convicted perpetrators, rather than on the incidents themselves (the victim). How many prisoners have committed suicide or been murdered and no one has been brought to trial? How many crimes have been stopped by the presence of a correctional officer? These are questions that need answers.

To comprise a list of data requirements for such analysis is beyond the scope of this report. What will be addressed is a procedure which should be followed to enable future research on these questions.

First, a monthly log should be maintained by each institution on information pertaining to violence at that institution. Such things as dates of inspections, acts of violence (noting who was involved for cross

reference), grievances, disciplinary actions, etc., should be included. The log should be submitted to the central office of Adult Services monthly for compilation.

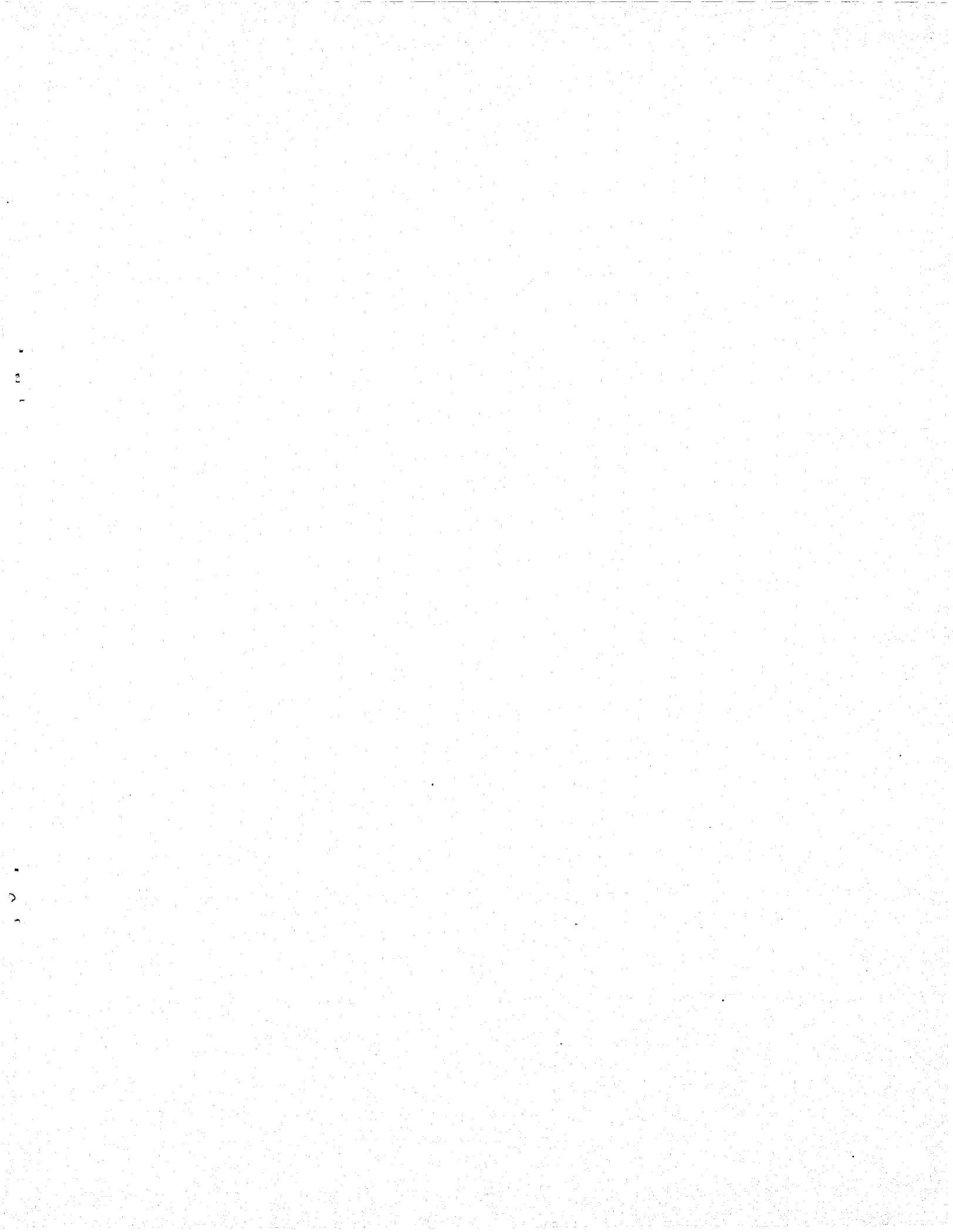
Second, a person should be designated by Adult Services to maintain continuous and consistent records of these logs, as well as other data sources. These records would serve not only as an invaluable source of information for research, but also as a management tool. This person would be able to devote the necessary attention to specific data needs of Adult Services and would greatly improve the analysis capabilities of this important division of the Department of Corrections.

Appendix I

This appendix contains the graphic displays of the information discussed in this report.

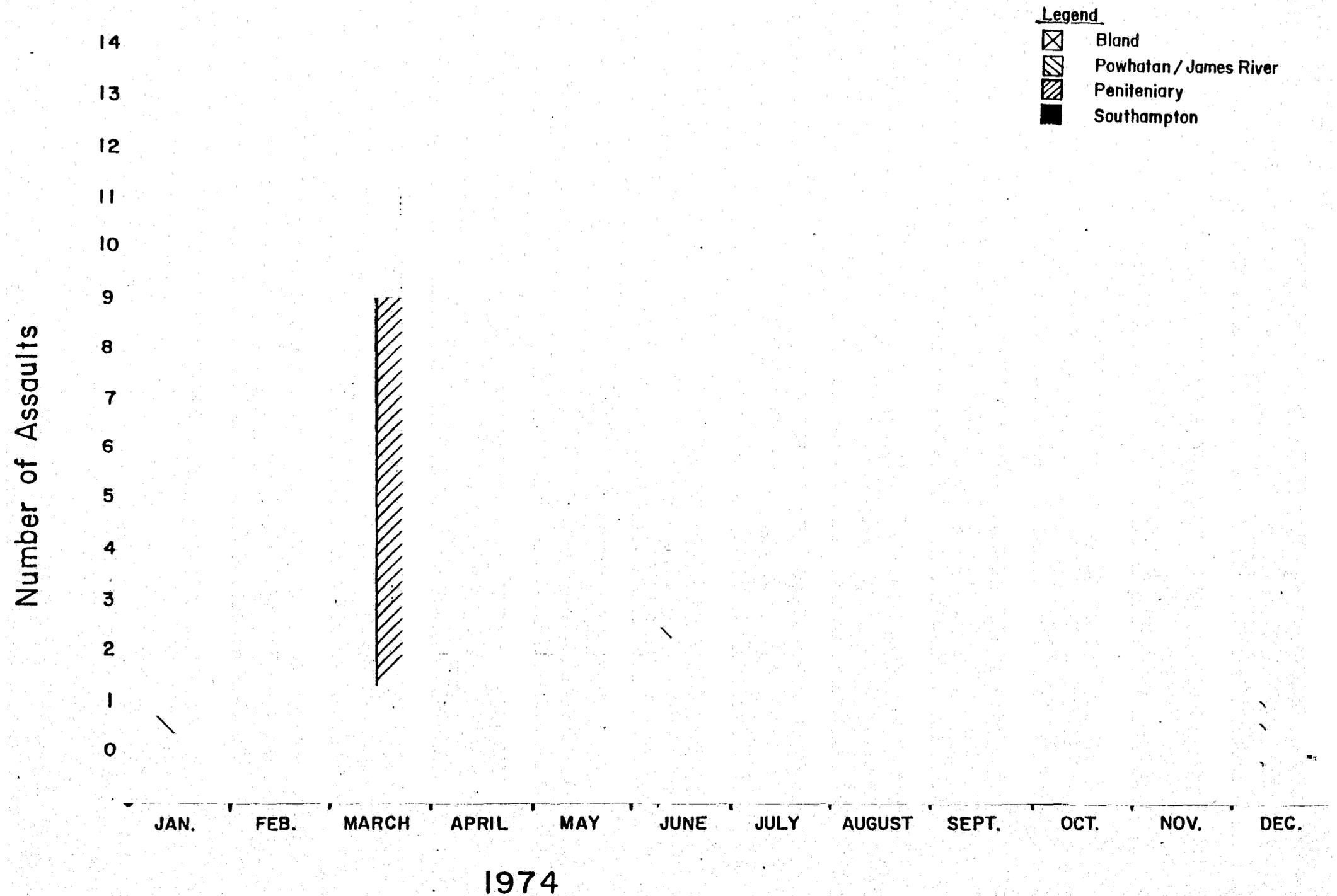
The first figures, figure 1A, 1B, and 1C represent the number of assaults at each institution from January, 1974 through August, 1976. Where there is no bar visible, there is no information available for that institution for that month.

It is interesting that Southampton Correctional Center and the Penitentiary usually have the highest numbers of assaults for the four institutions.



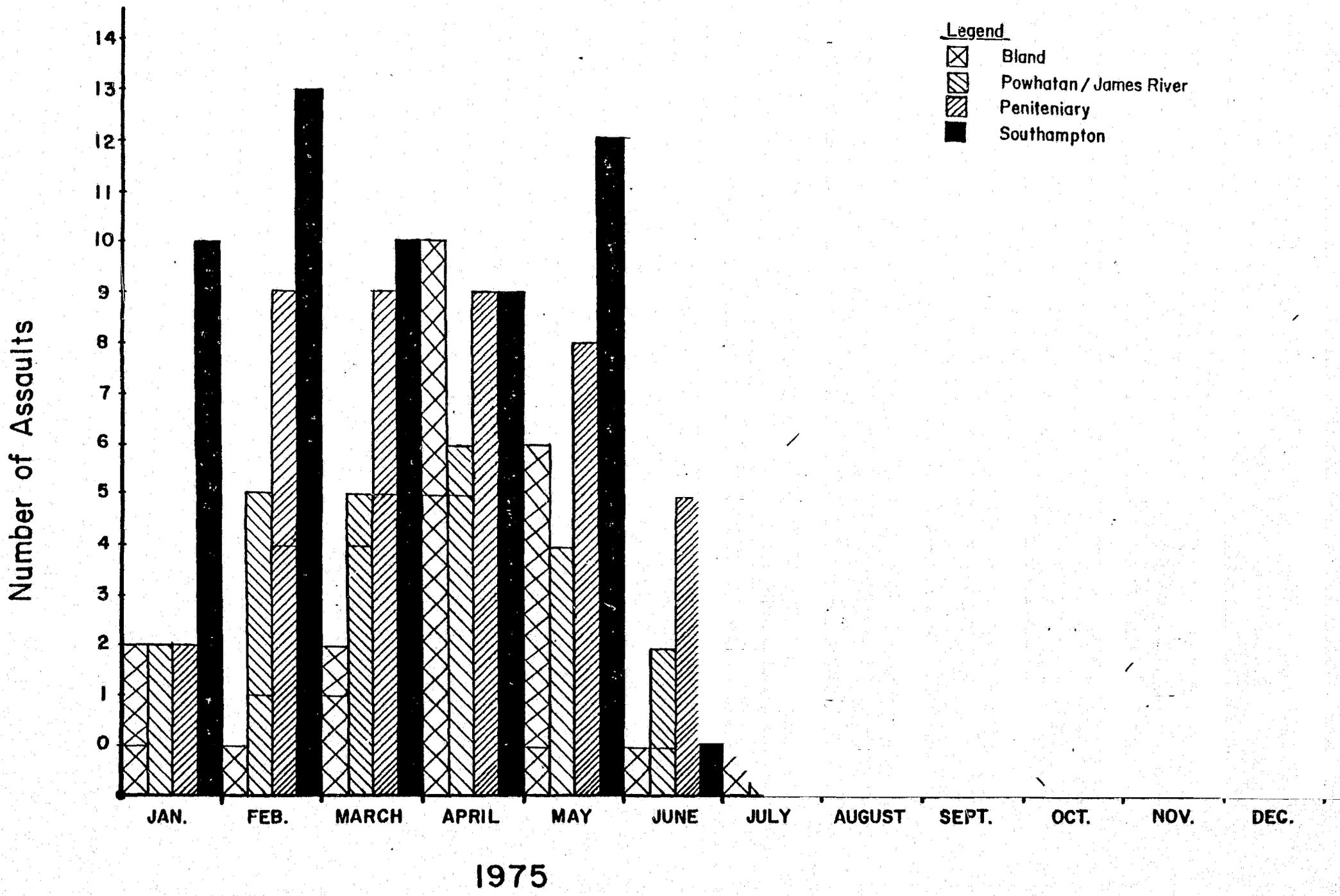
The Number of Assaults at all Institutions in 1974

Fig. 1A



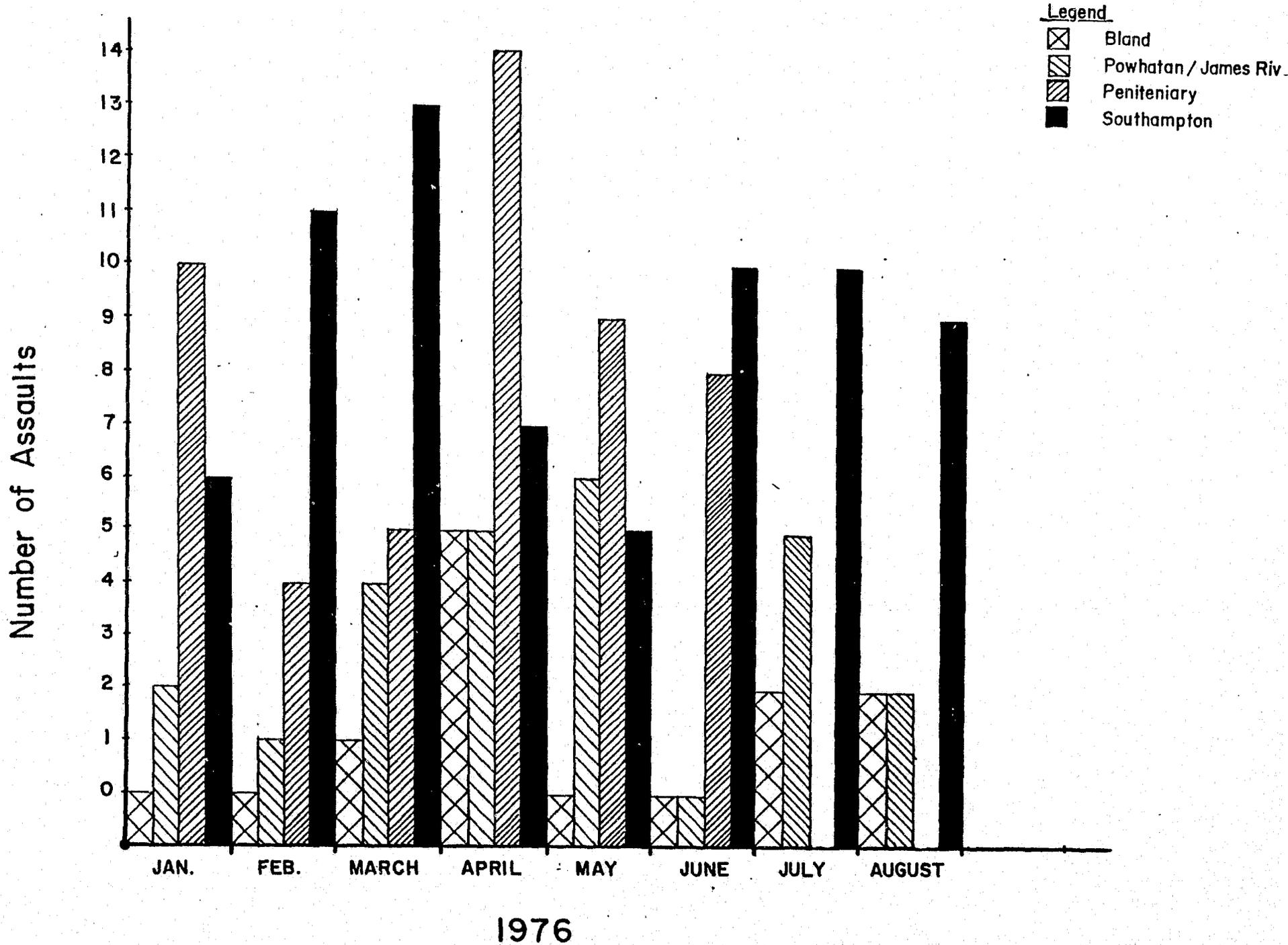
The Number of Assaults at all Institutions in 1975

Fig. 1B

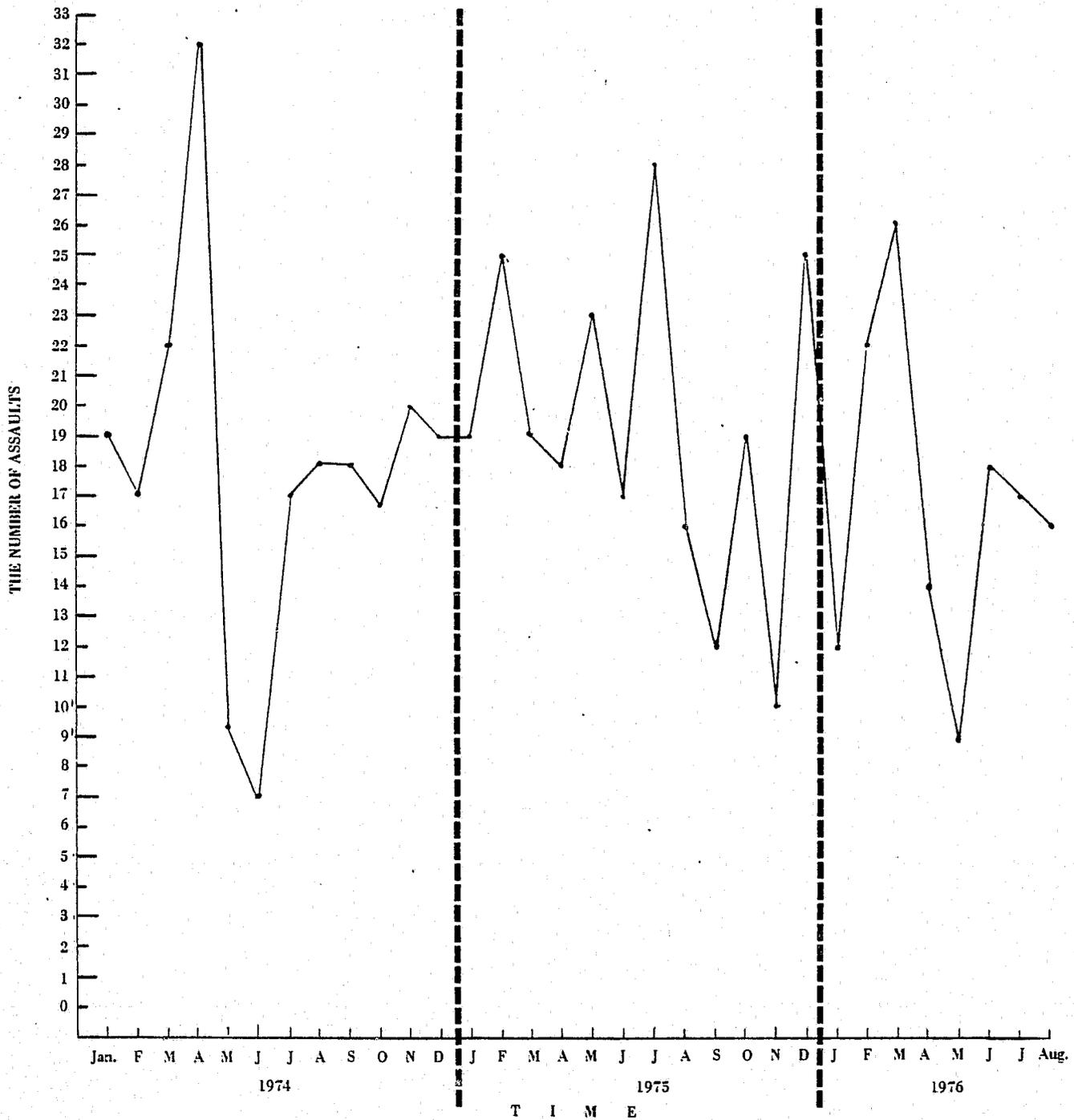


The Number of Assaults at all Institutions
in 1976

Fig. 1C

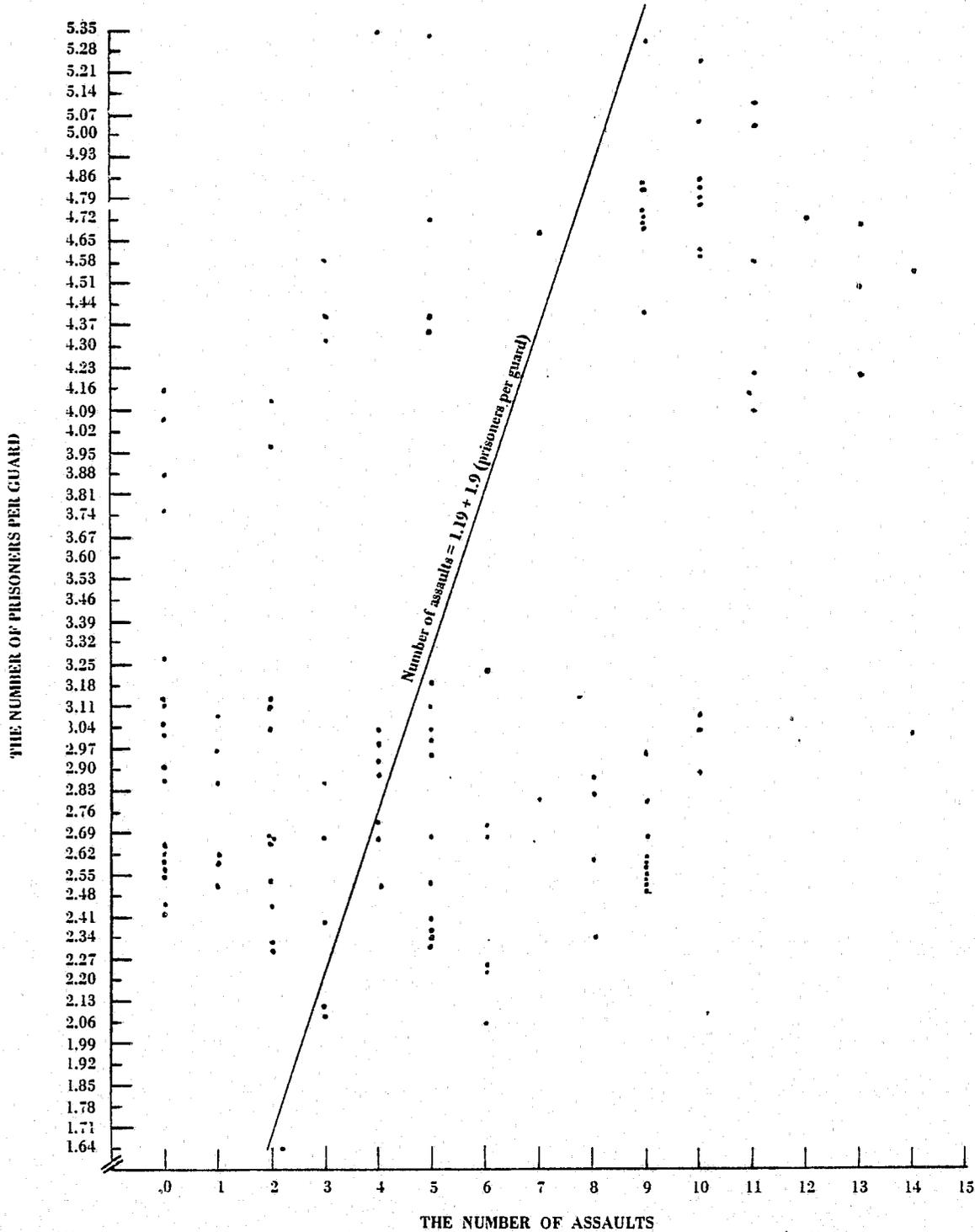


THE TOTAL NUMBER OF ASSAULTS AT ALL INSTITUTIONS PER MONTH.
 FIGURE 2



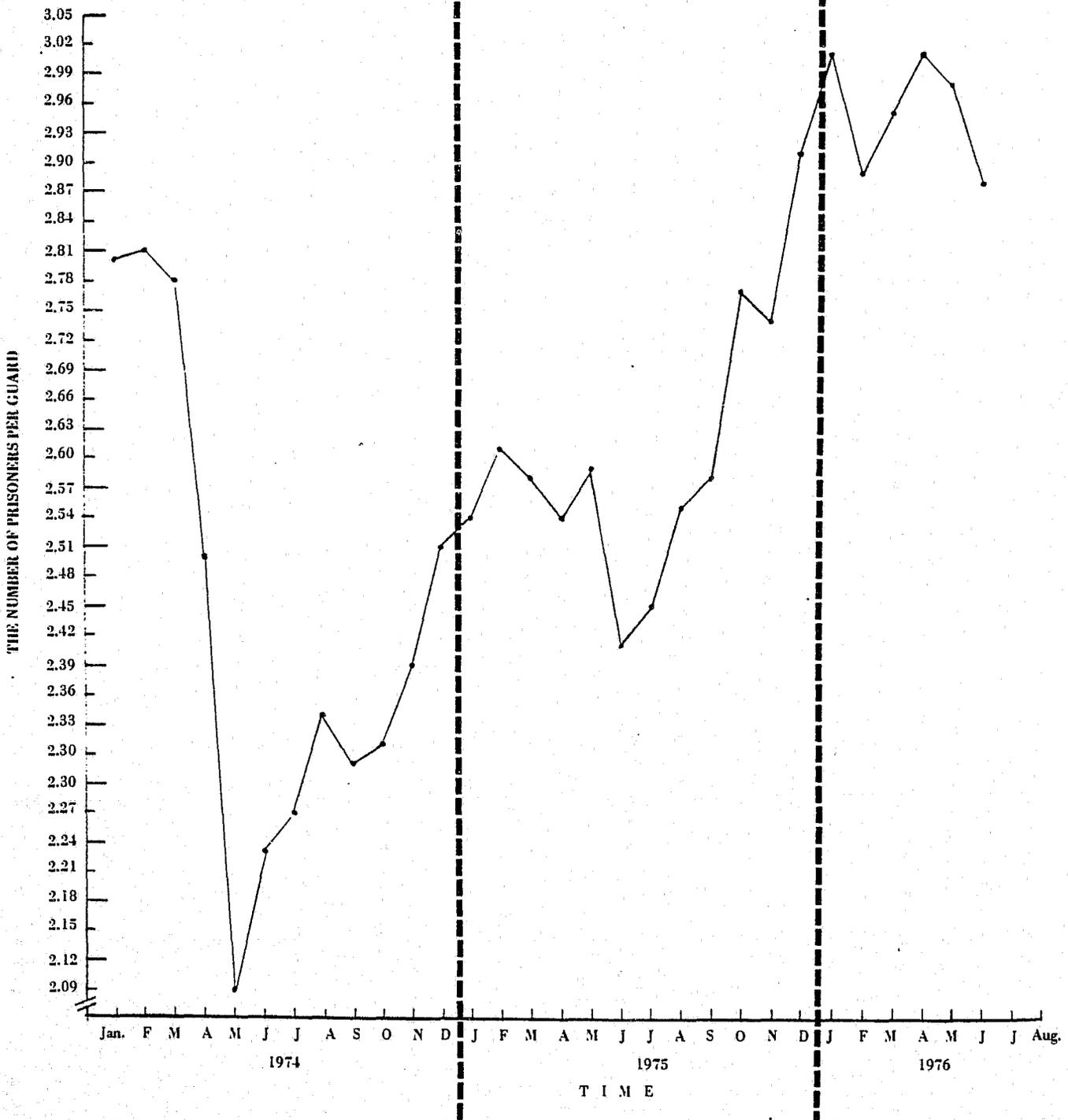
The above figure represents the monthly number of incidents of violence at all four institutions sampled for the years 1974 - 1976. It should be noted that some of the fluctuation may be due in part to missing information.

THE NUMBER OF ASSAULTS BY THE NUMBER OF PRISONERS PER GUARD AT ALL THE INSTITUTIONS
 FIGURE 3



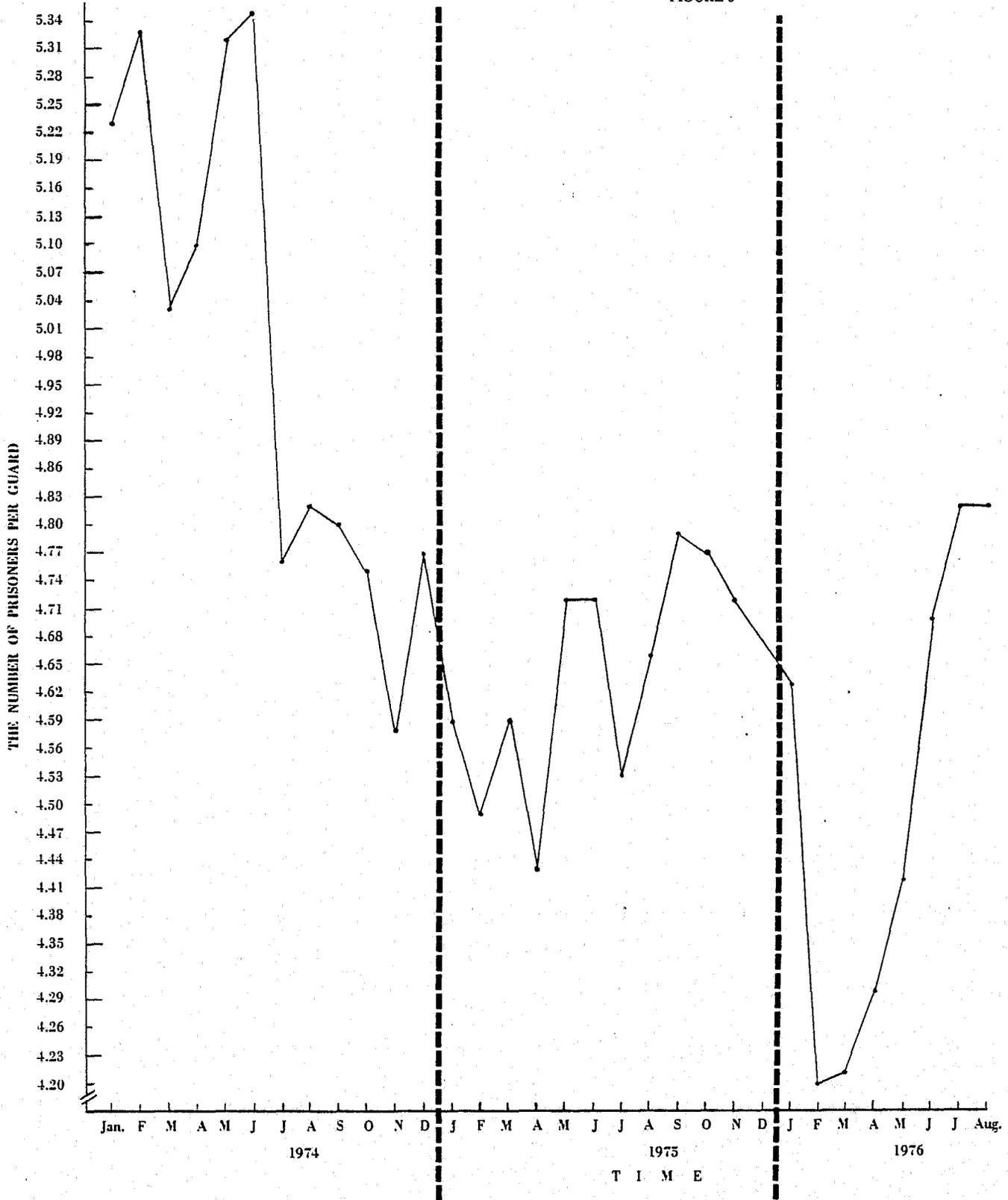
The above chart represents the number of assaults as that relates to the number of prisoners per guard. The line indicates that as the number of prisoners per guard rises the number of assaults rises, as well.

THE NUMBER PRISONERS PER GUARD AT THE PENITENTIARY
FIGURE 4



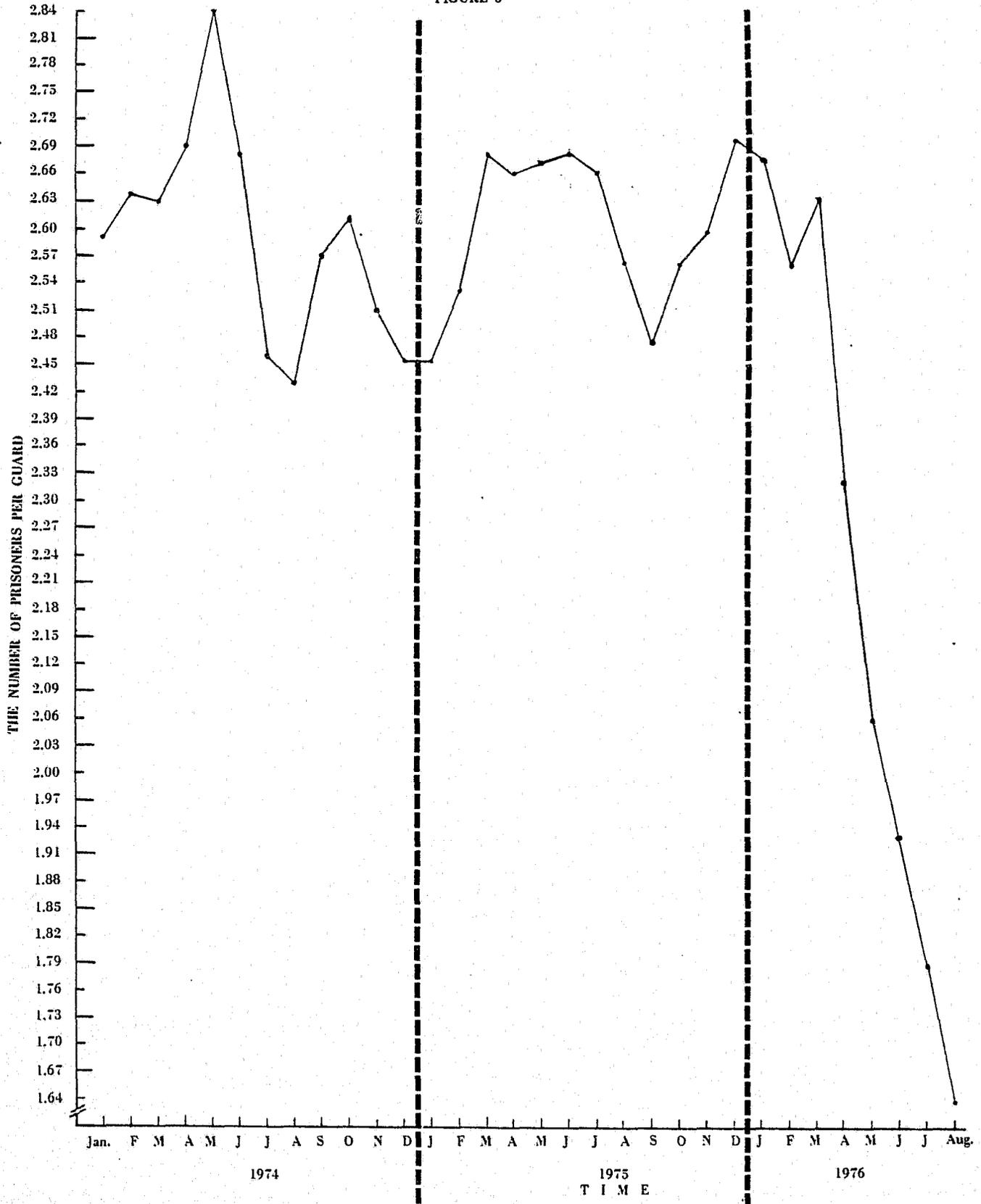
It is interesting to note from the above figure that the number of prisoners per guard at the Penitentiary has steadily risen since May, 1974. Over the three year period, the Penitentiary has approximately an average of two and a half prisoners for every guard. This indicates that the Penitentiary has one of the closest supervision ratios of any of the institutions studied.

THE NUMBER OF PRISONERS PER GUARD AT SOUTHAMPTON CORRECTIONAL CENTER
FIGURE 5



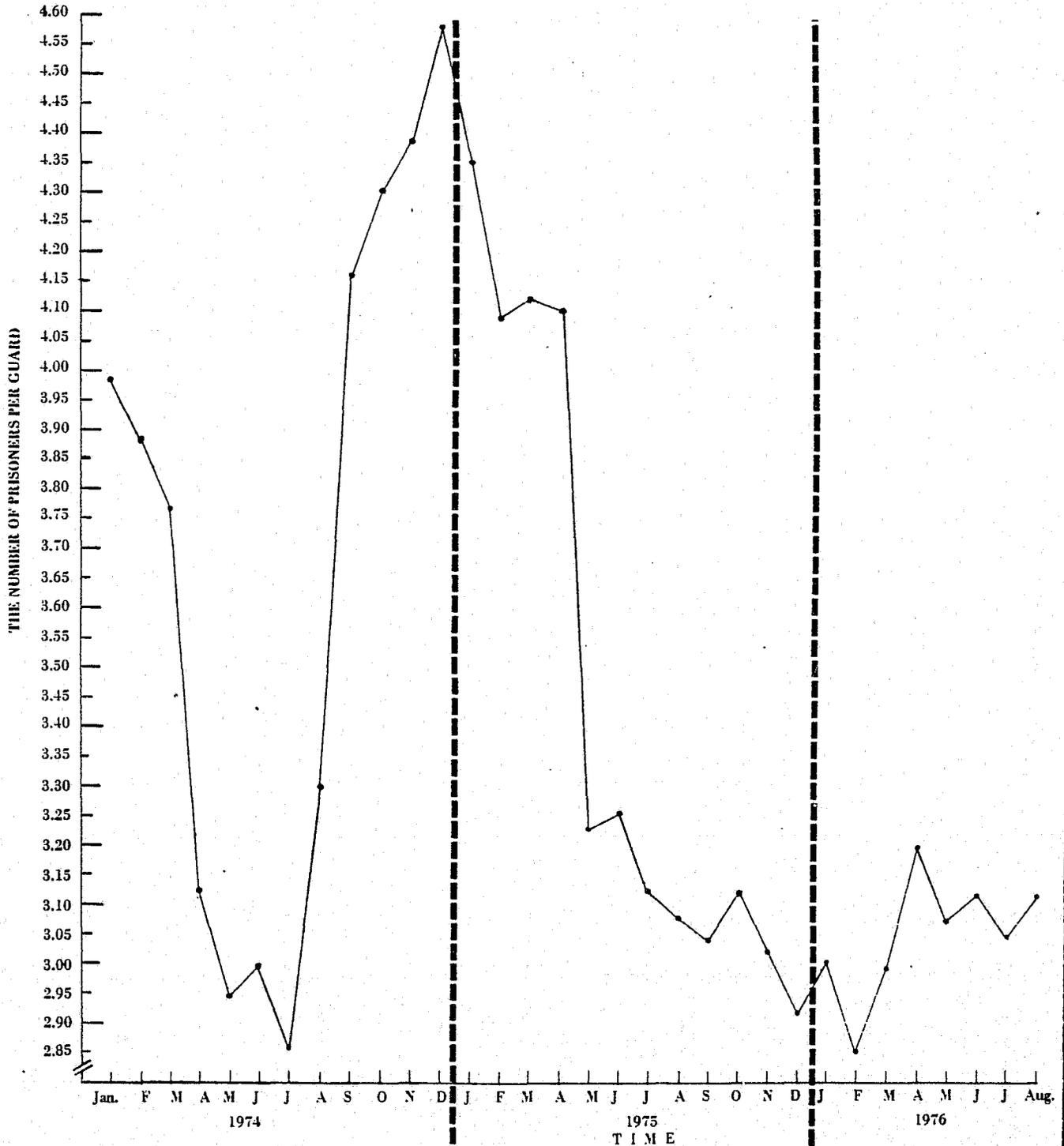
The above figure represents the prisoner per guard ratios at Southampton Correctional Center from January, 1974 through August, 1976. While some of these ratios are the largest found in any of the institutions, there has been a decline in these ratios since July, 1974.

THE NUMBER OF PRISONERS PER GUARD AT THE POWHATAN/JAMES RIVER CORRECTIONAL CENTER
 FIGURE 6



The above chart is a graphic representation of the prisoners per guard situation at the Powhatan/James River Correctional Center complex. It should be noted that after March, 1976 there has been a dramatic decline in the number of prisoners per guard at this institution.

THE NUMBER OF PRISONERS PER GUARD AT BLAND CORRECTIONAL CENTER
FIGURE 7



This figure represents the prisoner /guard ratios at Bland Correctional Center. There is a dramatic drop in the number of prisoners per guard after April, 1975 and these lower ratios have been maintained.

END