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**PROFILE OF 1991 NEW COMMITMENTS  
WITH SUGGESTED ALCOHOL ABUSE PROBLEMS  
BASED ON MAST SCORES**

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EXECUTIVE SUMMARY

ACQUISITIONS

**Background.** Prior to 1981, the Department relied on the self-reports of offenders upon reception as the basis for statistics on alcohol abuse among the inmate population. In order to develop improved estimates of the extent of alcohol abuse among the inmate population, the Department began in 1981 to administer the Michigan Alcohol Screening Test (MAST) to new commitments in cooperation with the Fellowship Center of New York City Mission Society. A series of six prior research reports has examined the results of these MAST tests for new commitments to the Department in the prior year.

**Purpose of Report.** As part of this ongoing series, this report reviewed all male and female new commitments received in 1991 to determine the percentage with suggested alcohol abuse problems based on their MAST scores.

**Main Finding.** This survey found that 28.9 percent (6,666) of the 23,084 commitments in 1991 for whom MAST results are available had MAST scores of 9 or more that are clearly indicative of alcoholism.

Significant variations were observed among commitments from different regions in the states. Forty-four percent (44.3%) of commitments from Upstate counties had MAST scores of 9 or more compared to only 25.0 percent from New York City.

Based on available MAST score data, alcohol abuse continues to be a serious problem among new admissions, especially from Upstate communities.

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**PROFILE OF 1991 NEW COMMITMENTS  
WITH SUGGESTED ALCOHOL ABUSE PROBLEMS  
BASED ON MAST SCORES**

This report examines the number and characteristics of a sample of male and female new commitments received in 1991 with suggested alcohol abuse problems based on their scores on the Michigan Alcohol Screening Test (MAST).

**Background.** Prior to 1981, the Department utilized the self-reports of offenders upon reception as the basis for statistics on alcohol abuse among the inmate population.

Upon reception, offenders were asked if they were non-users of alcohol or if they would classify their use as "moderate" or "excessive."

However, the resulting statistics using these self-reports were criticized as significantly under-estimating the extent of alcohol abuse among the inmate population. It was argued that individuals with alcohol abuse problems commonly refuse to admit this problem either intentionally or unintentionally.

Department research supported this criticism of self-report statistics of alcohol abuse by using case folder data contained in probation reports and other documents. While the use of case folder data generated higher estimates of alcohol abuse in the inmate population, these estimates were undermined by the nature of the data sources in the case folder. The case folder material was obviously not specifically designed to identify alcohol abuse in any systematic fashion.

**Department Use of MAST Test.** In view of this situation, the Department perceived a need to develop a more systematic and accurate estimate of the extent of alcohol abuse in the inmate population.

The Fellowship Center of the New York City Mission Society was asked to assist the Department in improving its classification procedures in this area. The Mission Society recommended that the Department utilize the Michigan Alcohol Screening Test (MAST) for this purpose.

The MAST form, which is currently in use at Department reception centers, consists of 25 questions regarding alcohol use. English and Spanish language versions are available. The responses of the offenders are scored according to a weighted score basis. Under this approach, affirmative responses to certain questions are scored higher than others based on the content of the question.

Based on the established scoring procedure, the Mission Society indicates that MAST scores of 9 or more are clearly indicative of alcohol abuse.

**Initial Department Research on MAST Scores in 1982.** Soon after the Department began using the MAST, this office developed a research project in 1982 to utilize the MAST data to generate an improved estimate of the extent of alcohol abuse in the inmate population as well as a profile of offenders identified as alcohol abusers by this test. 1/

Of these 847 surveyed male new commitments in 1981, 295 (35%) had MAST scores of 9 or more.

This estimate of the extent of alcohol abuse in the inmate population was found to be significantly higher than the percent of these adult male new commitments who had reported excessive alcohol use. Of these 847 cases, 35 percent had MAST scores of 9 or more while only 19 percent admitted excessive alcohol use.

**Alcohol Abuse Among 1987 New Commitments.** In 1988, the Department began to prepare annual research reports on the MAST scores of new commitments in the preceding year. Of all 1987 new commitments, 27.8 percent had MAST scores of 9 or more as compared to 32.7 percent of all 1985 new commitments. 2/

**Alcohol Abuse Among 1988 Commitments.** In February 1989, the fourth report in this series examined the MAST scores of 1988 new commitments. 3/ This report found that the percentage of new commitments with MAST scores of 9 or more was approximately the same as in 1987. In 1988, 28.1% had MAST scores of 9 or more.

**Alcohol Abuse Among 1989-1990 New Commitments.** In March 1990, the fifth report in this series examined the prior year's MAST scores and found a decrease in these scores compared to 1988. 4/ In 1989, 24.1 percent had MAST scores of 9 or higher. In March 1991, the sixth report found that there had been an increase in the percent of inmates scoring 9 or higher among new commitments in the interval 1989-1990. In 1990, 25.0 of inmates had scores of 9 or higher. 5/

**Purpose of Present Research.** The objective of this report is to: (1) analyze the MAST scores of 1991 new commitments with reference to the five year period from 1987 to 1991, and (2) update findings on the overall percentage of commitments of previous studies to the Department with high MAST scores.

**Standard Criterion: MAST Score of 9 or More.** Similar to the preceding studies, this research considers MAST scores of 9 or more as being "strongly suggestive of alcohol abuse."

As noted previously, this criterion was initially suggested by the Fellowship Society. More recently, a 1988 report of the Vera Institute of Justice supports the use of this criterion. 6/ This Vera study found that MAST scores of 9 or more were highly related to other measures of alcohol abuse.

Moreover, it should be noted that the manual for the MAST indicates that a score of seven or more suggests a pattern of behavior reflective of "alcoholism." The Acting Director of the Department's Alcohol and Substance Abuse Treatment Program (ASAT) in 1990 emphasized that the Department's continued use of a MAST score of 9 as the criterion for alcohol abuse in its research series exceeds this cutoff point of seven. As such, the Department's use of this more rigorous criterion may be seen to generate conservative statistics on the extent of alcohol abuse among commitments. 7/

**Findings: Percent of 1991 New Commitments with MAST Scores of 9 or More.** The basic question addressed by the present study is: What percentage of the 1991 new commitments had MAST scores of 9 and over?

Of all 23,084 new commitments in 1991 (for whom MAST scores are available), 28.9 percent (6,666) had MAST scores of 9 and above.

In comparison to 1990, the percentage of new commitments with MAST scores of 9 or more has grown from 25.0% to 28.9% in 1991.

It should also be noted that from 1990 to 1991 the percentage of new commitments in the "possible alcoholic" category (MAST scores from 5 to 8) concurrently increased by more than five percent (from 14.2% to 19.7% in 1991).

**Five Year Trend.** From 1987 to 1991, there was no consistent trend in the percent of commitments with MAST score of 9 or above. The percentage of scores in this category initially dipped from 27.8% in 1987 to a low of 24.1% in 1989 then rose to a high of 28.9% in 1991.

The "possibly alcoholic" category also moved up and down in that interval, albeit in a slightly wider range in that period ranging from 13.2% (1989) to 21.1% (1987). Conversely, the "nonalcoholic" category fluctuated from 51.1% (1987) to 62.7% (1989).

**TABLE 1: FIVE YEAR TREND IN MAST SCORES OF 1987 - 1991 NEW COMMITMENTS**

MAST Score	1987		1988		1989		1990		1991	
	Number	Percent								
0 - 4	6,408	51.1	8,465	55.7	11,454	62.7	12,788	60.8	11,860	51.4
5 - 8	2,644	21.1	2,457	16.2	2,402	13.2	2,995	14.2	4,558	19.7
9 and above	3,482	27.8	4,266	28.1	4,409	24.1	5,262	25.0	6,666	28.9
<b>TOTAL</b>	<b>12,534</b>	<b>100.0</b>	<b>15,188</b>	<b>100.0</b>	<b>18,265</b>	<b>100.0</b>	<b>21,045</b>	<b>100.0</b>	<b>23,084</b>	<b>100.0</b>

Missing Cases = 3,171 (20.2%) of all 1987 new commitments  
 Missing Cases = 2,401 (13.7%) of all 1988 new commitments  
 Missing Cases = 3,503 (16.1%) of all 1989 new commitments  
 Missing Cases = 2,070 ( 9.0%) of all 1990 new commitments  
 Missing Cases = 1,014 ( 4.2%) of all 1991 new commitments\*

\* The number of missing cases on the MAST variable during 1991 is the lowest number and lowest percent of total new admissions since this series of reports was begun in 1985. This has been accomplished despite severe fiscal constraints under which the Department has had to operate.

Differences in MAST Scores Between Males and Females. Among 1991 new commitments for whom MAST data exist, there are differences in MAST scores by gender.

The females and males differ most strikingly in the percent of new admissions who are nonalcoholic. Over half (53.0%) of the males are nonalcoholic compared to 35.0% of the female new admissions. More than a third (36.5%) of the females are "possibly alcoholic" compared to 18.0% of the males. But the percentage of definitely alcohol is virtually identical among both male (29.0) and female (28.5) new admissions.

TABLE 2: MAST SCORES OF NEW COMMITMENTS CLASSIFIED BY GENDER

MAST Score	Total		GENDER			
	Number	Percent	Male Number	Male Percent	Female Number	Female Percent
0-4	11,860	51.4	11,118	53.0	742	35.0
5-8	4,558	19.7	3,784	18.0	774	36.5
9 or up	6,666	28.9	6,064	29.0	602	28.5
TOTAL	23,084	100.0	20,966	100.0	2,118	100.0

Missing = 1,014 (868 male and 146 female)

A slightly higher percentage of females (6.4%) compared to males (4.0%) were missing MAST scores. The percentage difference is not believed to substantially affect the above comparison.

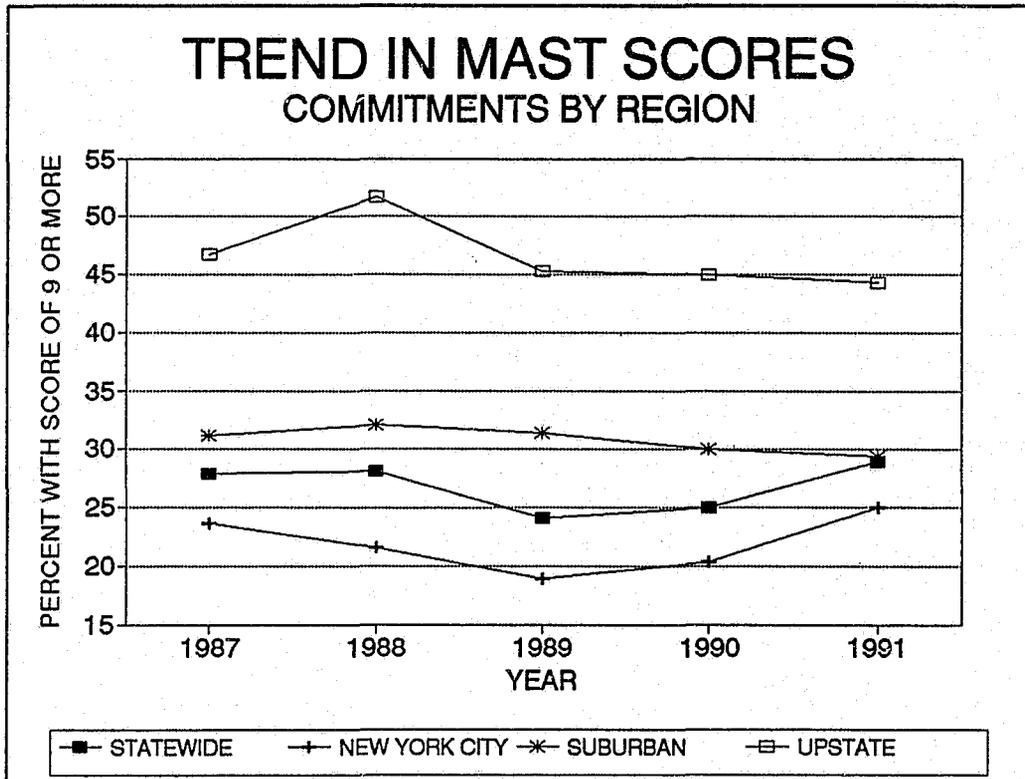
Substantial Regional Differences. As in preceding studies, regional differences were found in the MAST scores of 1991 new commitments. Among Upstate New York new commitments, 44.3 percent had MAST scores of 9 or higher compared to 29.4 percent of Suburban New York City commitments and only 25.0 percent of New York City new commitments.

TABLE 3: FIVE YEAR TREND OF MAST SCORE OF 9 OR MORE BY REGION 8/

<u>REGION</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Statewide	27.8	28.1	24.1	25.0	28.9
New York City	23.6	21.5	18.9	20.3	25.0
Suburban New York City*	31.1	32.0	31.4	30.0	29.4
Upstate New York	46.7	51.7	45.3	45.0	44.3

\* Westchester, Nassau, Suffolk and Rockland Counties.

These trends are illustrated by the following graph:



In the period 1987 to 1989, the percentage of New York City commitments with high MAST scores declined 4.7 percent from 23.6 percent in 1987 to 18.9 percent in 1989. However, in 1990, the direction of the graph changed. In that year, the percentage of persons from New York City with high MAST scores increased from 18.9 percent to 20.3 percent. In 1991, fully a quarter (25.0%) of new admissions from New York City for whom test information exists had MAST scores of 9 or more.

The statewide rate of commitments with high MAST scores of 9 or more declined by 3.7 percent between 1987 and 1989, approximately the same as the decline of commitments from New York City. The statewide rate also rose fractionally in 1990 from 24.1 percent to 25.0 percent and in 1991 rose again to 28.9 percent of all new admissions for whom test results are available.

**Conclusion.** Based on available 1991 MAST score data, alcohol abuse continues to be a serious problem among new admissions, especially from Upstate communities.

The MAST data for 1991 new commitments suggests that more than a quarter of new commitments (28.9%) had a serious alcohol abuse problem prior to incarceration. Overall, the percentage of alcohol abusers among new commitments declined slightly from 1987 to 1989 because of the decline in the percent of alcohol abusers among new commitments from New York City. However, there is some evidence that among New York City new commitments this decline is now reversing. Furthermore, among new commitments from Suburban New York City and Upstate, the percent of alcoholics has either remained fairly constant in that period or declined marginally.

FOOTNOTES

- 1/ "Profile of Male Offenders With Suggested Alcohol Abuse Problems Based on MAST Scores." Donald Macdonald and Jody Grossman, New York State Department of Correctional Services, May 1982. The second report in this series was prepared in 1985.
- 2/ "Profile of 1987 New Commitments With Suggested Alcohol Abuse Problems Based on MAST Scores." Robert Fisher and Donald Macdonald, New York State Department of Correctional Services, June 1988.
- 3/ "Profile of 1988 New Commitments With Suggested Alcohol Abuse Problems Based on MAST Scores." Robert Fisher and Donald Macdonald, New York State Department of Correctional Services, February 1989.
- 4/ "Profile of 1989 New Commitments With Suggested Alcohol Abuse Problems based on MAST Scores." Robert Fisher and Donald Macdonald, New York State Department of Correctional Services, March 1990.
- 5/ Profile of 1990 New Commitments With Suggested Alcohol Abuse Problems Based on MAST Scores." Robert Fisher and Donald Macdonald, New York State Department of Correctional Services, May 1991.
- 6/ Young, Douglas and Mark Usdane, Alcohol, Drugs & Crime, Vera Institute of Justice, New York, NY, March 1988.
- 7/ The Department's Acting Director of ASAT has pointed out that the MAST is most appropriately viewed as assessing the existence of a pattern of behavior reflective of "alcoholism" rather than "alcohol abuse" or "an alcohol abuse problem" (as categorized in the Department's series). In this research series, the terms "alcohol abuse" and "alcohol abuse problem" have been and are used interchangeably with "alcoholism" with reference to MAST score interpretation. At the suggestion of the Department's ASAT staff, this definitional issue is noted for the reader who is familiar with the differing definitions of these terms in the professional literature of the field.
- 8/ Percentages reported are based on cases for whom MAST data is available on the Department's computer system.