

# Alcohol-Related Violence in Downtown Madison

City of Madison Police Department

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# Alcohol-Related Disorder Grant

- Incident types selected based on alcohol research literature
- Central District and State Street area (Sector 403) selected based on number of incidents
- Most data from 2003

# Alcohol-Related Violence and Alcohol-Related Disorder

- Alcohol-related violence is violence that is fueled by alcohol consumption
  - Battery
  - Substantial battery
- Alcohol-related disorder is social disorder that is fueled by alcohol consumption
  - Fights
  - Disturbances
  - Liquor law violations

# Preliminary Study

DISTRICT	1998	1999	2000	2001	2002	2003	Total
WEST	27,253	28,839	30,270	31,143	33,849	35,586	186,940
SOUTH	23,358	23,259	24,011	24,078	23,677	23,169	141,552
CENTRAL	43,290	42,614	43,473	43,582	45,182	43,268	261,409
NORTH	23,759	23,719	25,381	24,942	25,751	25,647	149,199
EAST	19,218	19,696	21,299	21,229	22,046	21,588	125,076
Total	136,878	138,127	144,434	144,974	150,505	149,258	864,176

SECTOR	1998	1999	2000	2001	2002	2003	Total
401	148	159	191	147	153	163	961
402	4,354	4,833	5,168	5,023	5,073	4,709	29,160
403	10,905	10,776	11,358	11,464	11,917	11,344	67,764
404	6,076	5,767	5,748	6,207	6,840	6,309	36,947
405	6,253	6,090	5,894	6,073	5,900	5,899	36,109
406	5,414	5,507	5,579	5,276	5,529	5,496	32,801
407	3,057	2,810	2,719	2,918	2,858	2,888	17,250
408	2,674	2,669	2,825	2,457	2,863	2,713	16,201
409	1,585	1,547	1,409	1,422	1,471	1,370	8,804
410	2,824	2,456	2,582	2,595	2,578	2,377	15,412
Total	43,290	42,614	43,473	43,582	45,182	43,268	261,409

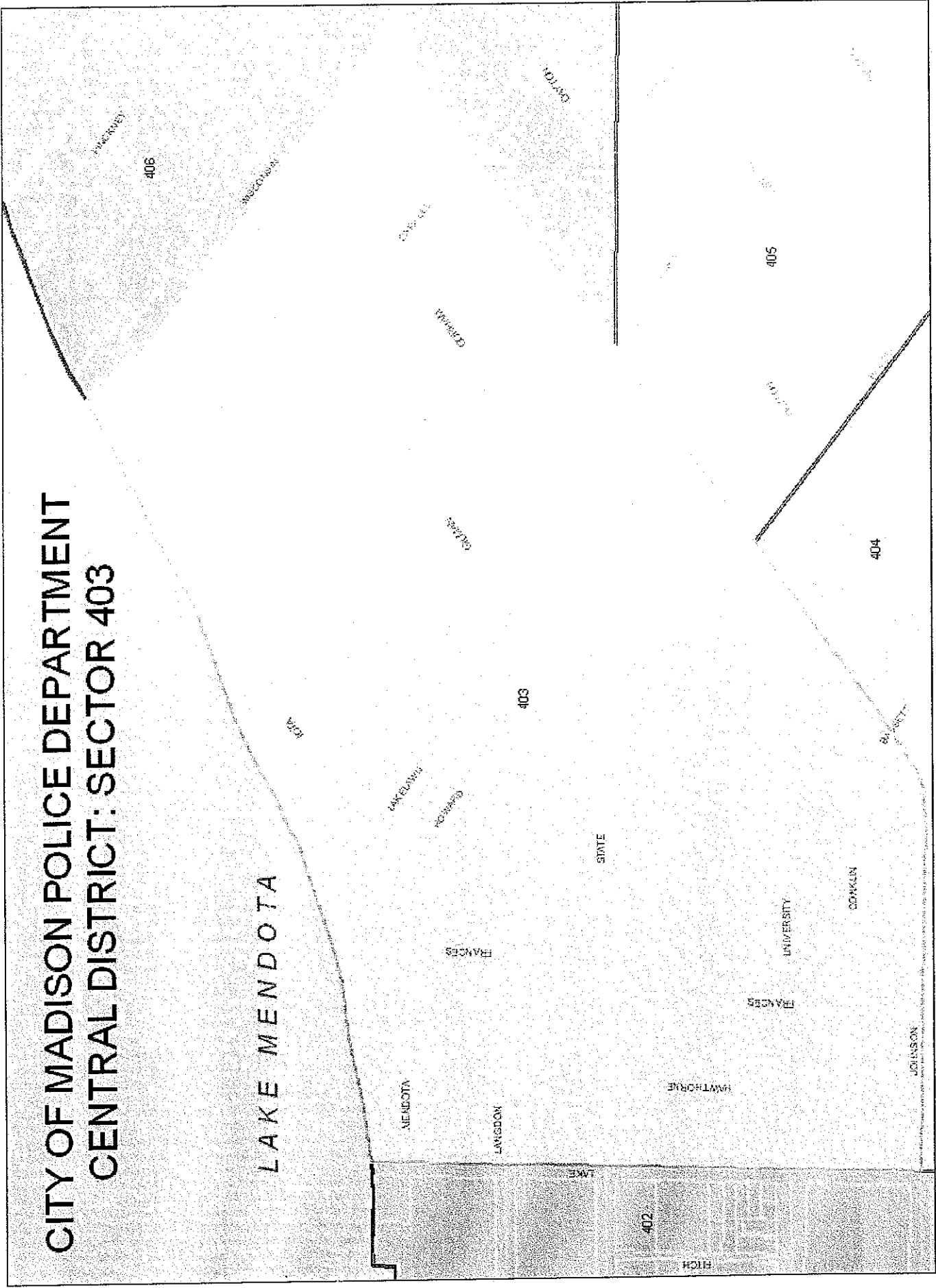
# Central District Incidents

INCIDENT	TOTAL	% OF TOTAL
Battery	451	28%
Disturbance	1354	30%
Fight	302	43%
Liquor Law	470	75%
Substantial Battery	124	30%

# Sector 403 Incidents

INCIDENT	TOTAL	% OF TOTAL
Battery	178	11%
Disturbance	575	13%
Fight	175	25%
Liquor Law	288	44%
Substantial Battery	63	15%

# CITY OF MADISON POLICE DEPARTMENT CENTRAL DISTRICT: SECTOR 403



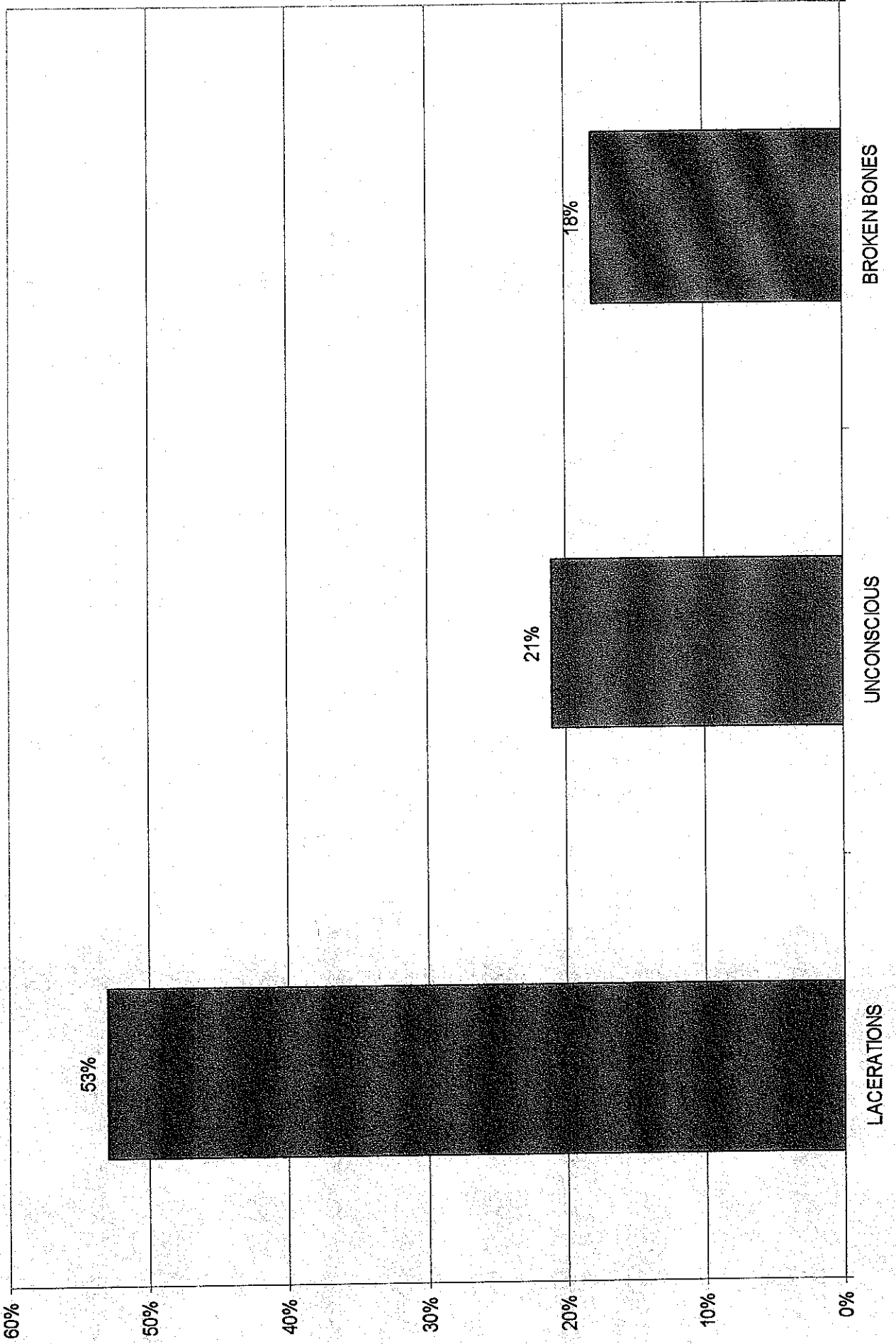
# 2003 Substantial Battery in

## Sector 403

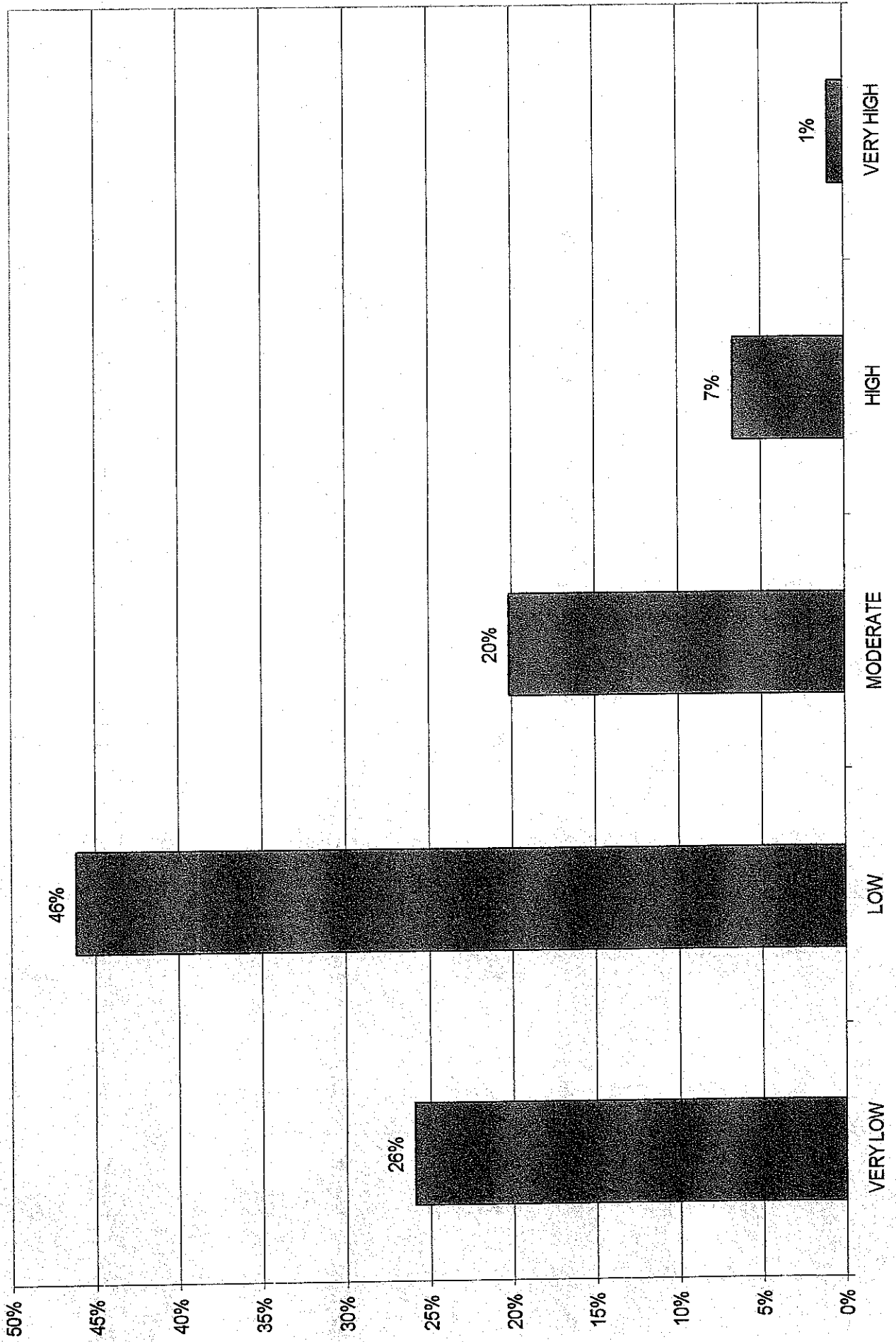
- 73% of police reports have suspects believed to have used alcohol
- 77% of police reports have victims believed to have used alcohol



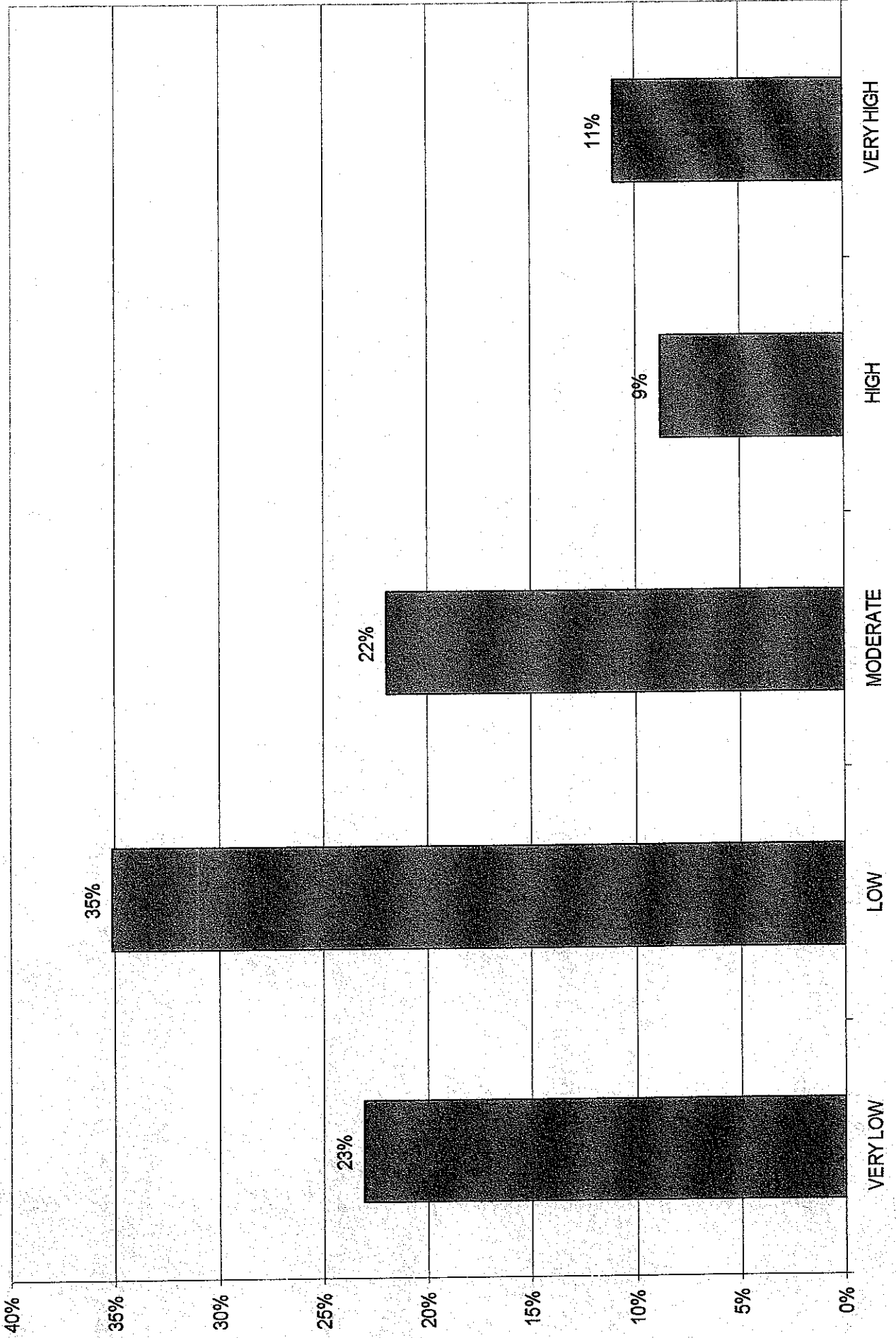
# 2003 SUBSTANTIAL BATTERY INJURIES IN SECTOR 403



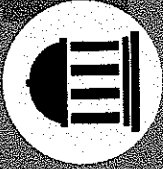
# 2003 SUSPECT LEVEL OF ALCOHOL IMPAIRMENT FOR SUBSTANTIAL BATTERIES



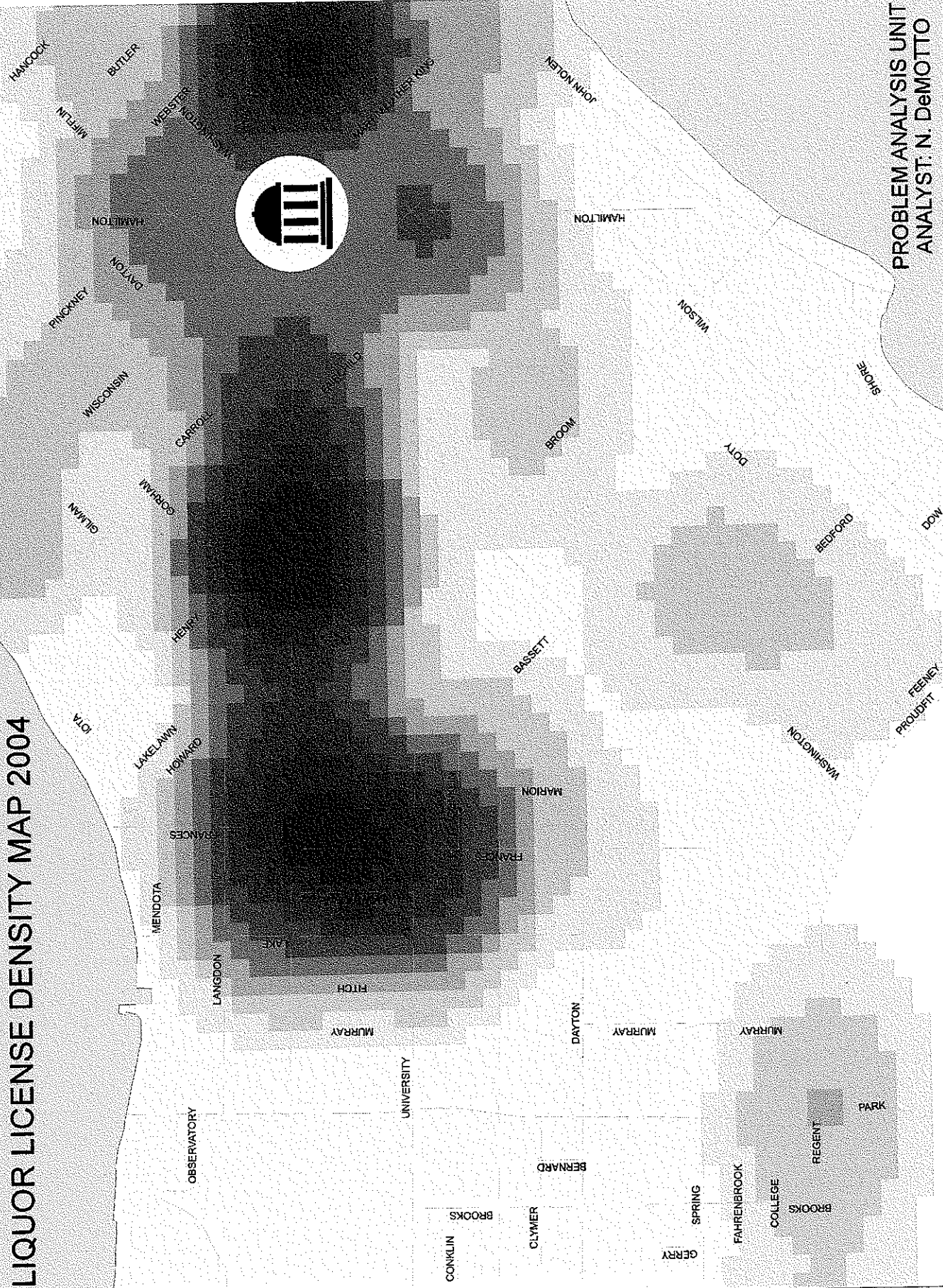
2003 VICTIM LEVEL OF ALCOHOL IMPAIRMENT FOR SUBSTANTIAL BATTERIES



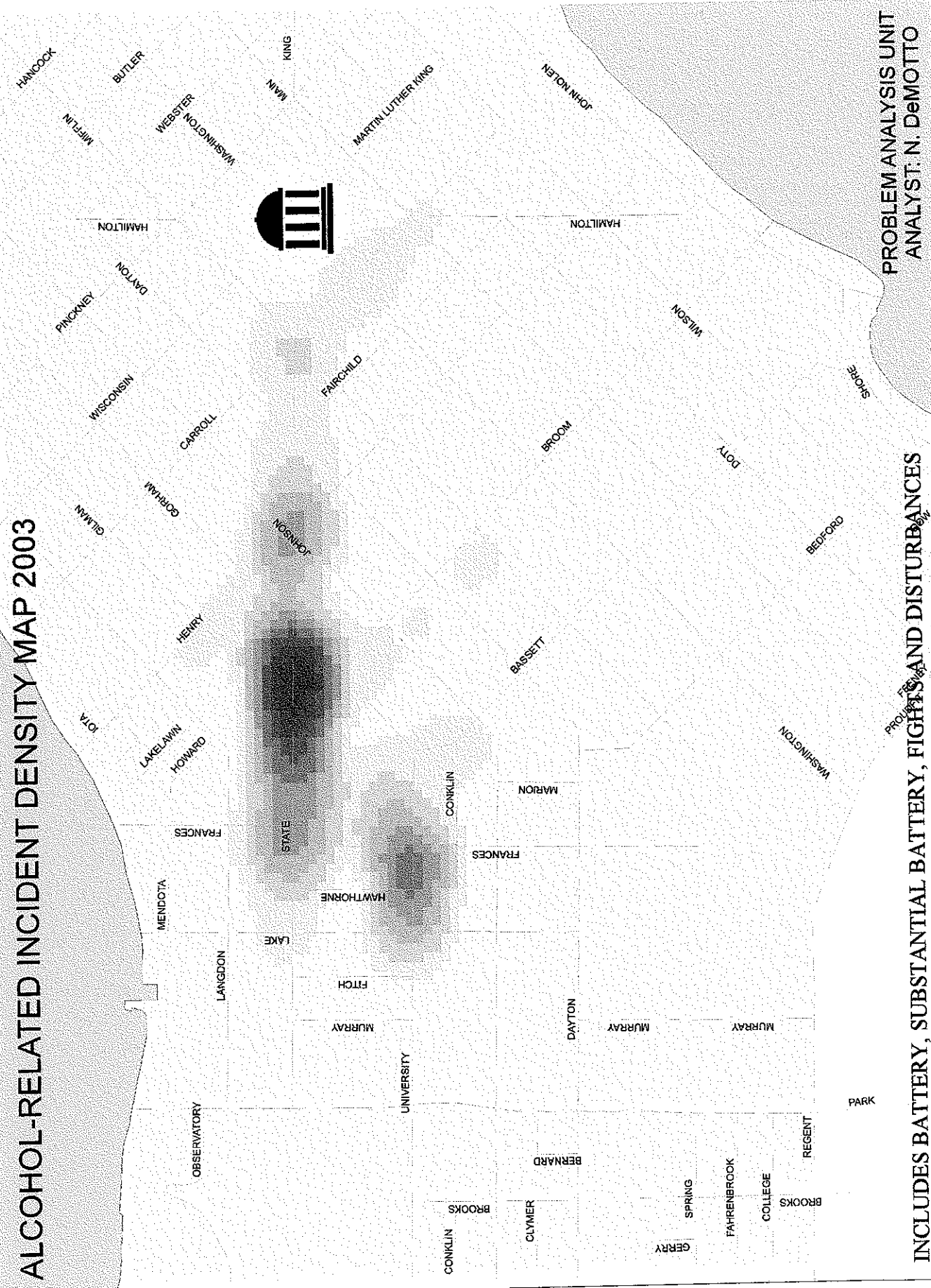
# LIQUOR LICENSE DENSITY MAP 2004



PROBLEM ANALYSIS UNIT  
ANALYST: N. DeMOTTO



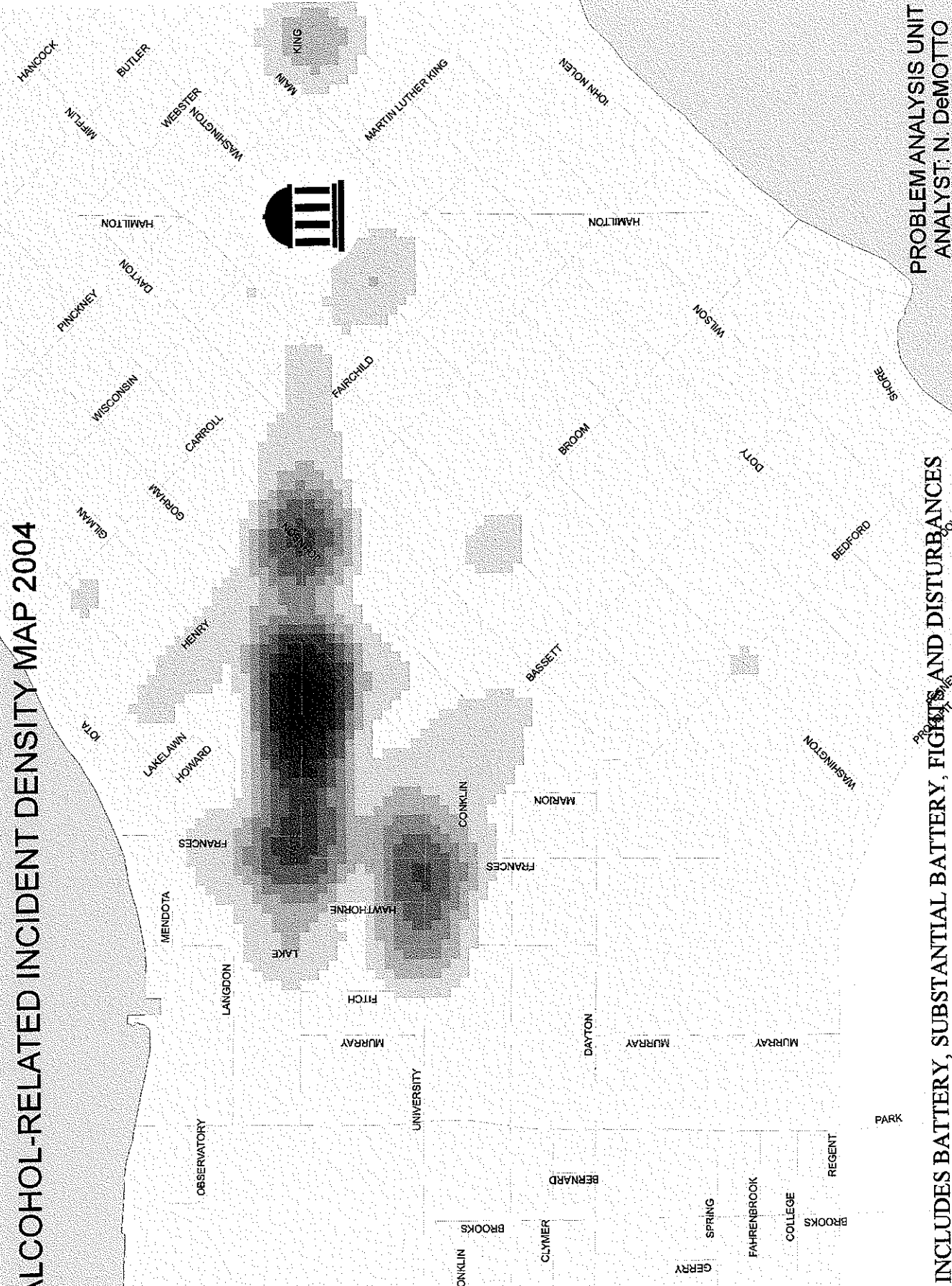
# ALCOHOL-RELATED INCIDENT DENSITY MAP 2003



PROBLEM ANALYSIS UNIT  
ANALYST: N. DeMOTTO

INCLUDES BATTERY, SUBSTANTIAL BATTERY, FIGHTS AND DISTURBANCES

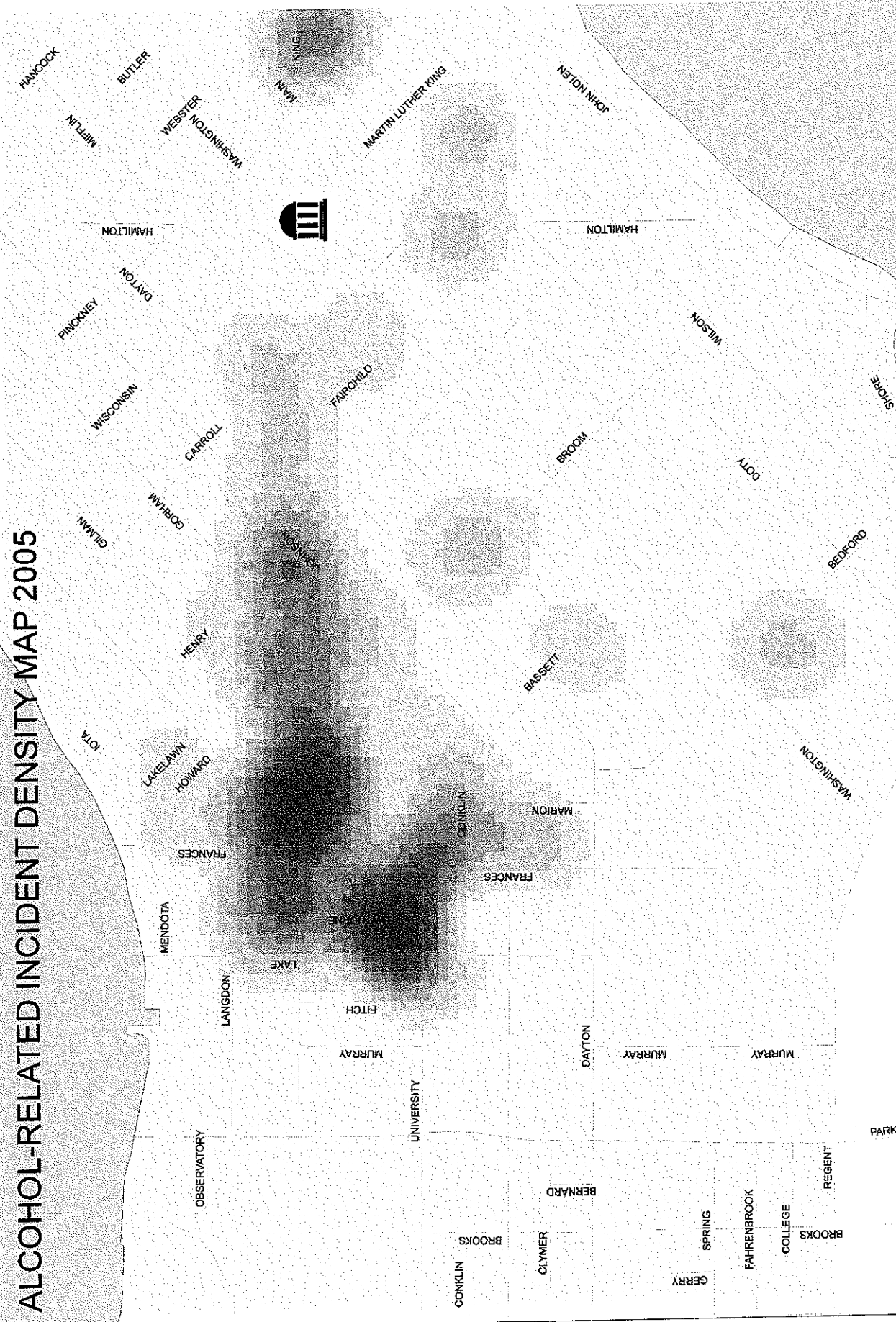
# ALCOHOL-RELATED INCIDENT DENSITY MAP 2004



PROBLEM ANALYSIS UNIT  
ANALYST: N. DeMOTTO

INCLUDES BATTERY, SUBSTANTIAL BATTERY, FIGHTS AND DISTURBANCES  
BROOKS, COLLEGE, BROOKS, REGENT, PARK

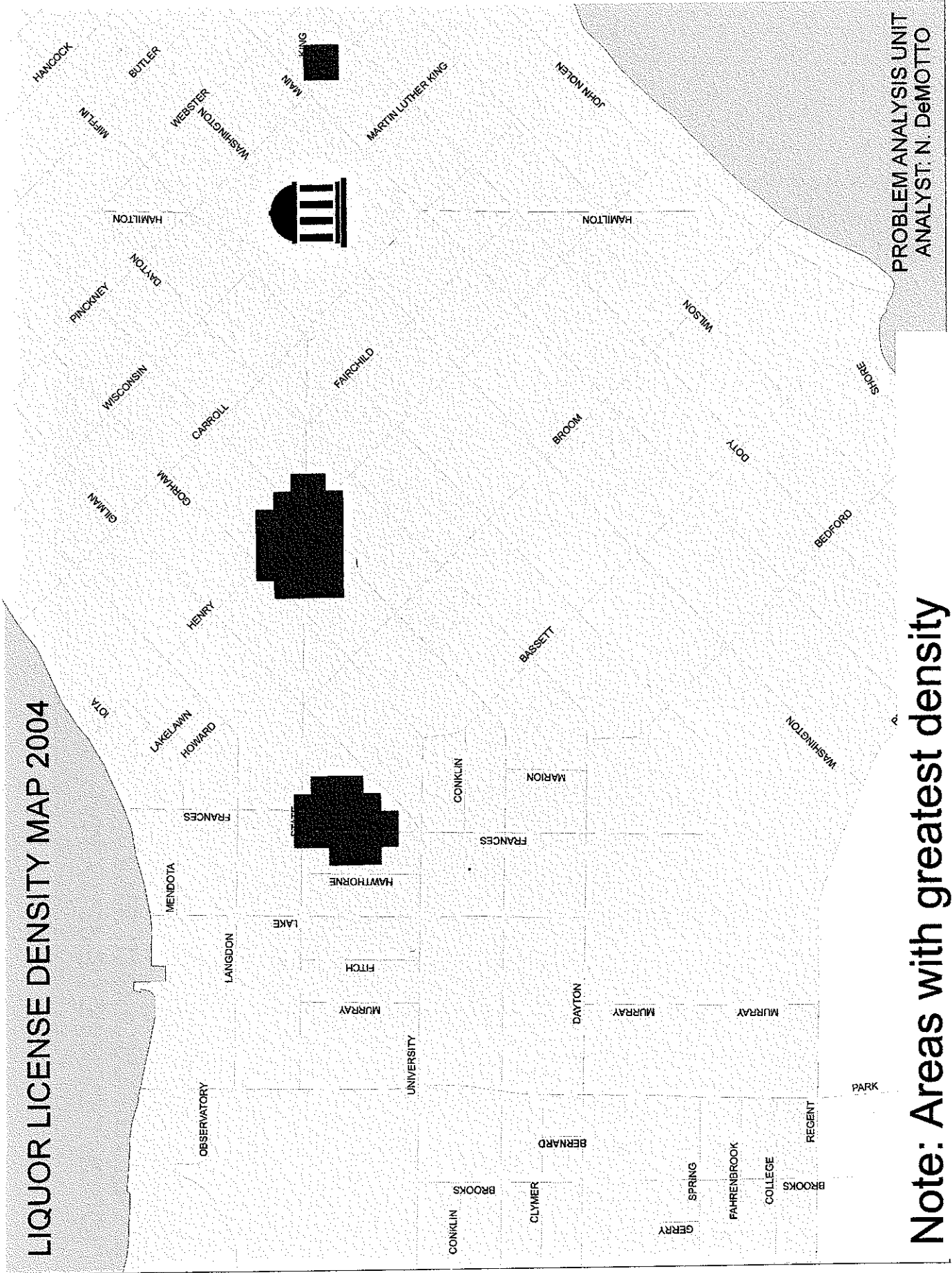
# ALCOHOL-RELATED INCIDENT DENSITY MAP 2005



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ANALYST: N. DeMOTTO

INCLUDES BATTERY, SUBSTANTIAL BATTERY, FIGHTS AND DISTURBANCES

# LIQUOR LICENSE DENSITY MAP 2004



Note: Areas with greatest density

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# Pearson's Correlation Coefficient (r)

- There is a significant relationship between the number of incidents at a location and number of liquor licenses at a location

– 2003

•  $r = .840$

– 2004

•  $r = .864$

– 2005

•  $r = .903$

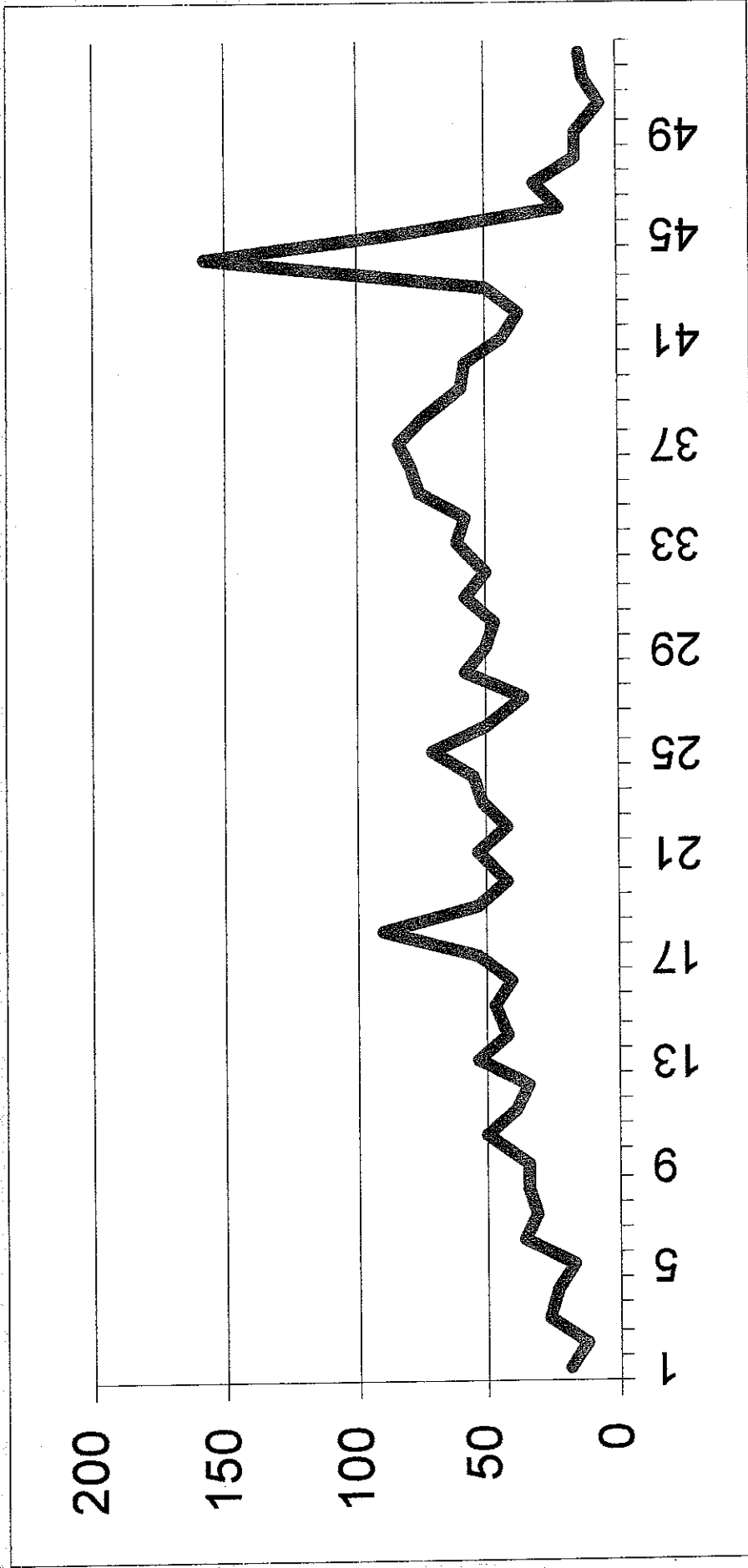
- The likelihood a change in license density will result in a change in incident density is very high

INCLUDES BATTERY, SUBSTANTIAL BATTERY, FIGHTS AND DISTURBANCES

Correlation is significant at the 0.01 level (2-tailed).

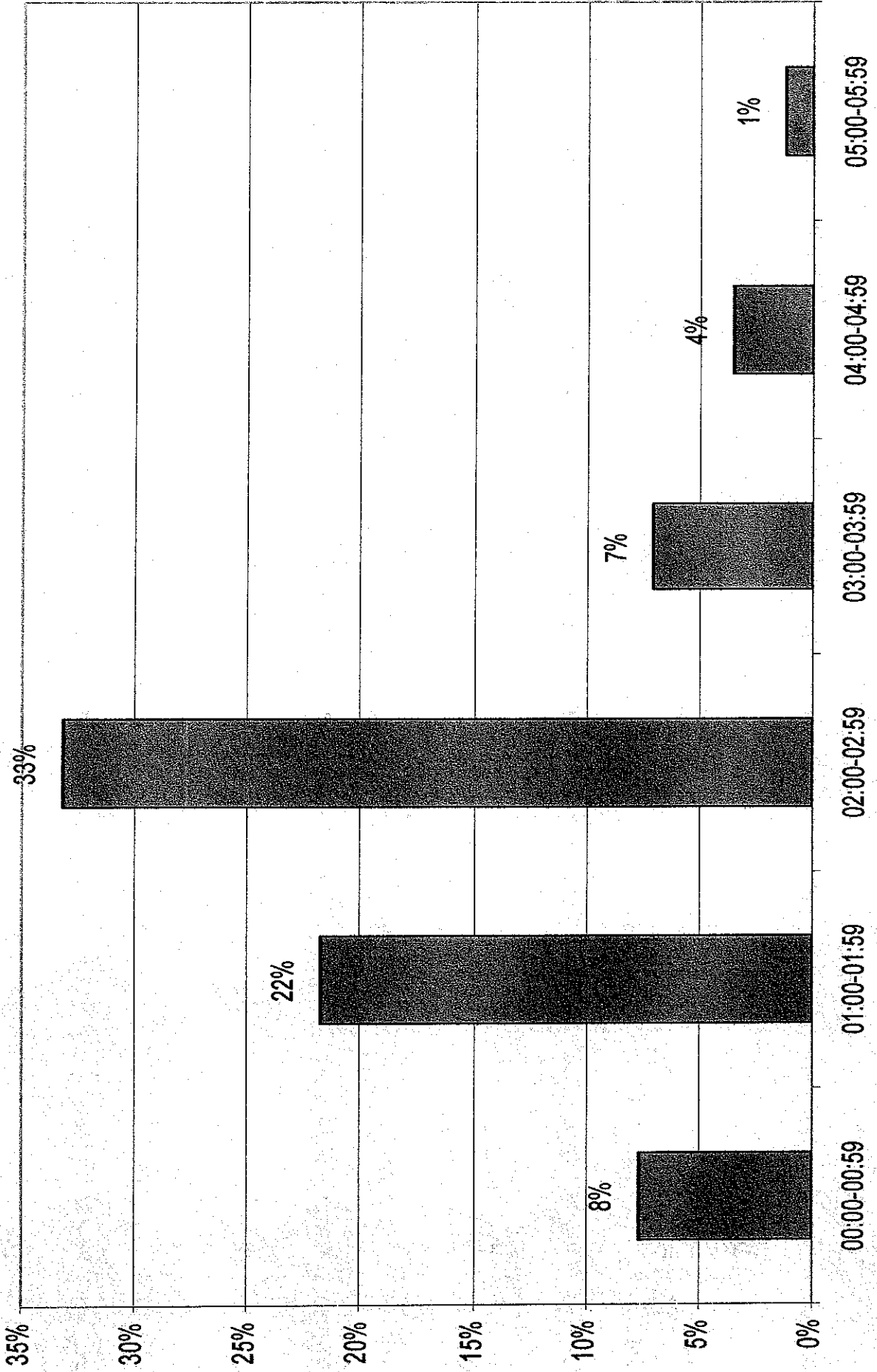
Sector 403

# Incidents by Week of the Year 2003



INCLUDES BATTERY, SUBSTANTIAL BATTERY, FIGHTS AND DISTURBANCES

# 2003 SECTOR 403 SUBSTANTIAL BATTERY CRITICAL PERIODS

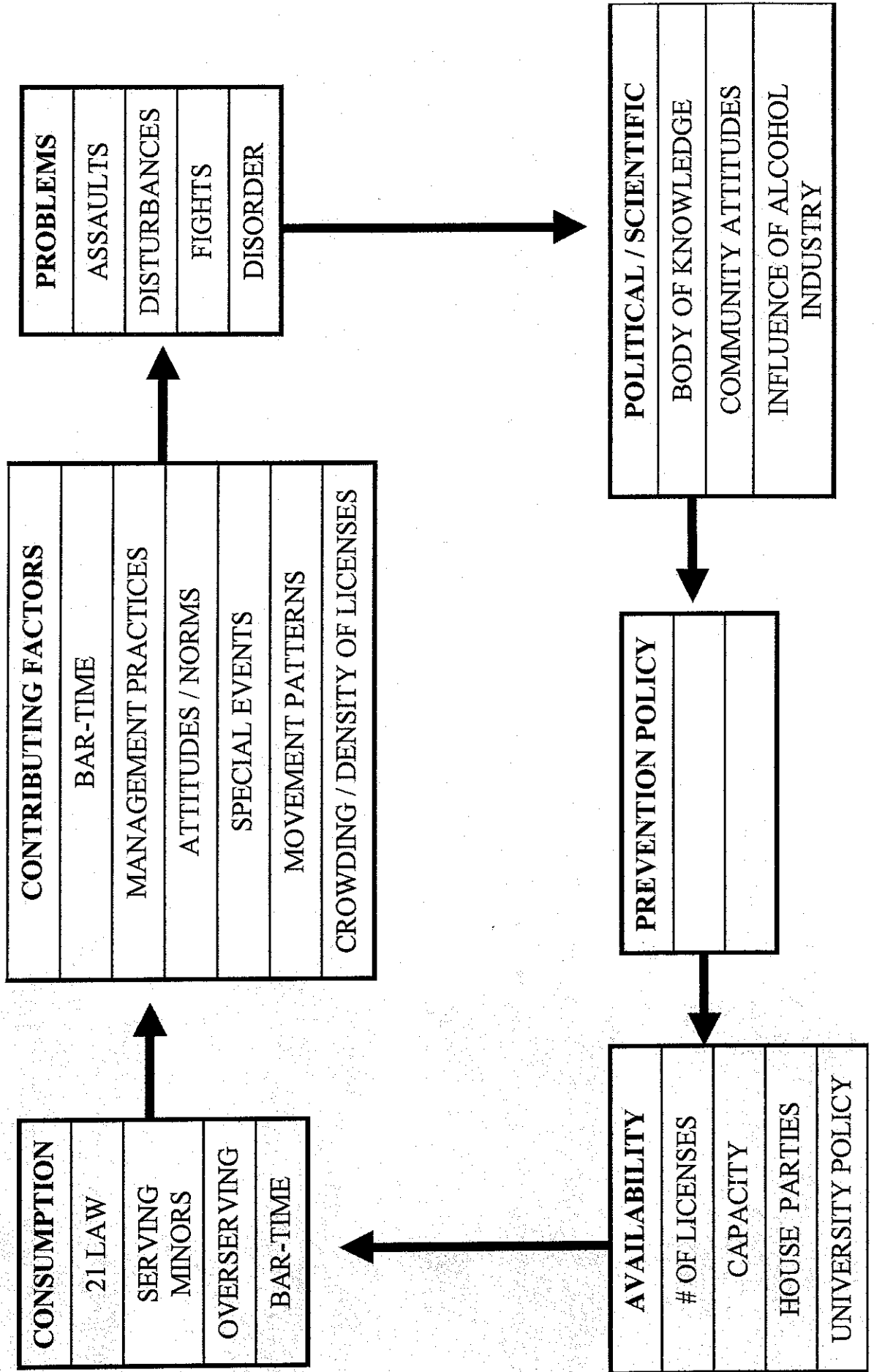


BAR TIME 2:00 AM ON WEEKDAYS AND 2:30 AM ON WEEKENDS

## Primary Conclusions

- Violence and disorder are clustered in the same locations where liquor licenses are clustered
- Violence and disorder are clustered around bar time

# Alcohol Disorder Model



# Alcohol Pricing and Demand

- Decrease the Demand for Alcohol through increasing the price of alcohol.

# Pricing and Competition

- Created a highly competitive environment.
  - Prices are low, because of the large number of establishments competing for customers.
  - Relatively few barriers to entering the market, which increases the level of competition and keeps prices low.
  - Profits for businesses are relatively low, compared to markets with fewer liquor licenses.

# Alcohol Pricing and Supply

- Decrease the Supply of Alcohol
  - Develop public policy restricting the number of liquor licenses per square mile.
  - Develop public policy to create a more uniform distribution of licenses through out the city.
  - Increase penalties for dispensing alcohol without a liquor license.



# Conclusion

- The Madison Police Department recommends a prevention policy of limiting the density of liquor licenses in Madison.