



## UNDERAGE ALCOHOL PURCHASE STUDY\*

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## UNDERAGE ALCOHOL PURCHASE STUDY<sup>1</sup>

### Executive Summary

Underage drinking is considered by the Charlotte-Mecklenburg Drug Free Coalition to be a major problem in this community. The problem is reflected in the last (December, 2004) results of the Youth Drug Survey (YDS) by Substance Abuse Prevention Services where 35% of all students in grades 6 through 12 and 53% of high school students admitted using alcohol. 24% of high school students admitted drinking within 30 days of the survey. 55% said they engaged in “binge-drinking” - 5 or more drinks in one sitting.

This project was designed to determine how easy it is to purchase alcohol without providing legitimate identification. We proportionately and randomly selected 25% of the establishments with ABC permits for off-premise sales from the seven zip codes where the highest proportion of students in the YDS who drank in the previous 30 days said it was “easy” to get and that they or someone bought it for them. Those zip codes were: 28205, 28208, 28216, 28226, 28227, 28269 and 28270. Each establishment, with the exception of four where circumstances did not permit, were approached twice on two different days and times by different “buyers” in an attempt to purchase a six-pack of domestic beer. 102 attempts were made at 53 establishments. The study was done between April 21 and May 5, 2006.

- 40 buys (39%) were made in 102 attempts
- 63.3% (31 of 49) of the stores approached twice sold at least once
  - 16.3% (8) sold *both* times
  - 46.9% (23) sold one of the two times
- 36.7% (18 of 49) did not sell either time
- Of the four stores with one attempt, 1 (25%) sold.
- 90% of the establishments in zip code 28227 sold at least once.
- Small grocery stores/delis and convenience stores without gas are proportionately more likely to sell without asking for ID

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- 2/3 of the 9 supermarkets in the sample sold without asking for ID
- The buyer's gender was not a factor in whether a sale was made or not.
- Clerks were most likely, however, to sell to African American buyers than to White or Latino buyers.
- There were no statistically significant differences by gender or race of the clerks and whether they sold or did not sell.

There is, however, a significant relationship between the gender of the clerk and the race of the buyer.

- Of the female clerks who sold the beer, 82.4% of the sales were to African American buyers ( $p < .05$ )
  - 80% of White female sales were to African American males
  - 66.7% of African American female sales were to African American males

### Conclusion

This research shows that the perception by students that access to alcohol in Charlotte-Mecklenburg is easy and that it can be purchased without an ID is supported. When 63% of the establishments sold at least once in two random attempts there is a problem of consistency in the application of the law.

There is no basis in this research to explain why, but data collected for the CMDFC from the Fall 2005 Community Survey by UNCC revealed that while 80% indicated disapproval of the statement that persons under 21 should be able to drink alcohol with parental supervision, 86%, when ask to give an age when youth should be allowed to drink, indicated an age of 18 or younger (Average, 17.3).

This suggests that there is incongruity between public attitudes and the law and that there is likely no consistent message being conveyed in the community regarding underage drinking. Individual clerks in individual establishments appear to be making decisions about the application of the law.

## Introduction

Underage drinking is considered to be a major problem in this community. There have been a number of auto accident deaths caused by underage drinkers and some deaths of youths from excessive blood alcohol levels. The Charlotte-Mecklenburg Drug Free Coalition (CMDFC) has, as one of its primary goals, a focus on reducing underage drinking.

The Coalition received a grant from the North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services as part of the coalition's underage drinking initiative. Part of the grant is designed to conduct underage "buys" to monitor the extent to which local establishments adhere to the law requiring age verification through ID before selling.

This project is the first in a series of studies to ascertain the extent to which underage youth can successfully purchase alcohol themselves through establishments that sell, but do not serve alcohol on the premises, such as grocery and convenience stores.

## Methodology

The 2004 Youth Drug Survey of students in grades 6 through 12 in the Charlotte Mecklenburg Schools asked students if they had consumed alcohol in the last 30 days. It also asked them if they purchased it themselves or had others do it for them and how easy it was to get alcohol. Using these three questions as a screen, the zip code residences of the students answering that they had consumed, had purchased and that it was easy were rank-ordered. The seven zip codes with the highest proportion of students answering these questions affirmatively were then selected.

The website for the NC ABC Board was consulted to identify all of the establishments with off-premise licenses in each of the zip codes. For the seven zip codes there were 225 permits issued. We took a 25% proportionate representative sample of the zip codes which gave a listing of 56 establishments.

A research instrument protocol was developed and "buyers" were selected. The buyers were selected from volunteer students at UNCCCharlotte. A panel of five age verifiers was used to make the selection. Each verifier had experience with this age group and also personally felt comfortable guessing ages. Each volunteer student was given a number and went into a room with the panel. The panel looked at them and also asked questions to ascertain demeanor. The result was the selection of a pool of potential buyers who had at least four of the five panelists indicate that they looked under 21. All buyers were actually over 21.

All buy attempts were made between 8 and 11 pm on either a Thursday or Friday evening over a three week period from April 21 and May 5. Attempts were made to approach each establishment twice on different nights and with different buyers. The buyers received training and role-play in how to make the attempt in a natural manner and were informed, if asked, to say they did not have their ID. All were asked to buy a 6-pack of a domestic beer. Efforts were made to match buyers with the dominant racial and ethnic characteristics of the neighborhoods. The sale was either consummated by the clerk or not. If a sale was made, the alcohol was marked with the name of the establishment and the date and time of the purchase.

## Findings

### Purchases

A total of 102 actual attempted purchases were made since some stores were closed, could not be located, or the buyer knew a clerk.

Actual buys were made 40 times (39.2%) in 102 attempts at 53 establishments

There was no significant difference in sales by day of the week but slightly more buys were made on Thursday than on Friday evenings.

Two attempts were made at 49 of the 53 stores. This means that:

- 63.3% (31 of 49) sold at least once
  - 16.3% (8) sold *both* times
  - 46.9% (23) sold one of the two times
- 36.7% (18 of 49) did not sell either time
- Of the four stores with one attempt, 1 (25%) sold.

In 29 of the 40 sales that were made no ID was even requested. In 11 an ID was requested but the clerk sold even when told the buyer had none.

There is no statistically significant difference in successful purchases by zip code but zip codes 28216, 28269 and 28208 were where the highest proportion of students lived who said purchasing was easy.

**Table 1 Attempted and Completed Purchases by Zip Code**

			zip code						Total	
			28205	28208	28216	28226	28227	28269		28270
Purchase Made	No	Number	16	14	9	5	9	7	2	62
		Percent	59.3%	63.6%	45.0%	83.3%	75.0%	58.3%	66.7%	60.8%
	Yes	Number	11	8	11	1	3	5	1	40
		Percent	40.7%	36.4%	55.0%	16.7%	25.0%	41.7%	33.3%	39.2%
Total		Number	27	22	20	6	12	12	3	102
		Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

While there is no significant statistical difference, there is some variation in the probability of sales by the type of establishment. Considering the 53 establishments:

- Small grocery stores/delis and convenience stores without gas are proportionately more likely to sell without asking for ID
- 2/3 of the 9 supermarkets in the sample sold without asking for ID

**Table 2 Sales by Type of Establishment**

Sales by Type of Establishment							
		Type of outlet					Total
		convenience (with gas)	convenience (without gas)	market/small grocery store (deli)	supermarket	Drugstore pharmacy	
No Sales	Number	15	2	0	3	1	21
	Percent	46.9%	28.6%	.0%	33.3%	50.0%	39.6%
Sold	Number	17	5	3	6	1	32
	Percent	53.1%	71.4%	100.0%	66.7%	50.0%	60.4%
Total	Number	32	7	3	9	2	53
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

With the exception of zip code 28226, at least 50% of the stores where attempts were made sold alcohol without checking identification. When looking at all establishments within zip codes, 90% in 28216 sold at least once.

**Table 3 Sales by Establishments and Zip Codes**

Sales by Establishments and Zip Codes									
		zip code							Total
		28205	28208	28216	28226	28227	28269	28270	
No Sales	Number	5	6	1	2	3	3	1	21
	Percent	35.7%	50.0%	10.0%	66.7%	50.0%	50.0%	50.0%	39.6%
Sold	Number	9	6	9	1	3	3	1	32
	Percent	64.3%	50.0%	90.0%	33.3%	50.0%	50.0%	50.0%	60.4%
Total	Number	14	12	10	3	6	6	2	53
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### ID Required Signs

Signs indicating that shoppers would be requested to provide identification to purchase alcohol were visible to buyers in only 18 (34.0%) of the establishments.

Signs were most visible in supermarkets (44.4%) and convenience stores that also sold gasoline (43.8%)

The alcohol was on open shelves or self-service coolers in all establishments.

## Type of Beer

A fascinating finding is that there is a statistically significant difference ( $p < .004$ ) in the sale without id and the type of beer in the attempts to buy. Buyers who attempted to buy regular or fortified beers were more likely than those attempting to buy "Lite" beer to be successful.

**Table 4 Sales by Beer Type**

			Attempt was for Lite beer		Total
			No	Yes	
Purchase Made	No	Number	11	46	57
		Percent	36.7%	68.7%	58.8%
	Yes	Number	19	21	40
		Percent	63.3%	31.3%	41.2%
Total	Number	30	67	97	
	Percent	100.0%	100.0%	100.0%	

- In five cases the buyer failed to record the type of beer

## Buyer Characteristics

The buyer's gender was not a factor in whether a sale was made or not.

Clerks were most likely, however, to sell to African American buyers than to White or Latino buyers.

- 52% of the time African American purchasers were successful compared to 29% for Whites and 22% for Latinos.

**Table 5 Sales by Race of Buyer**

			Buyers race/ethnicity			Total
			African American	Latino	White	
Purchase Made	No	Number	23	7	32	62
		Percent	47.9%	77.8%	71.1%	60.8%
	Yes	Number	25	2	13	40
		Percent	52.1%	22.2%	28.9%	39.2%
Total	Number	48	9	45	102	
	Percent	100.0%	100.0%	100.0%	100.0%	

$p < .04$

Looking at buyer race and gender combined, the most successful buys were by African American males ( $p < .02$ ). 42.5% of all successful sales were by African American male buyers followed by 22.5% for White females and 20% for African American females.

## Clerk Characteristics

There were no statistically significant differences by gender or race of the clerks and whether or not they actually sold. However, if a sale were made, the proportion of sales by gender and race show:

- African American clerks, male and female, and white females sold at least half of the time. White males made no sales without ID

**Table 6 Sale by Clerk Characteristics**

Clerk Characteristic	Sold	Did Not Sell
African American Male	11 52.4%	10 47.6%
African American female	6 54.5%	5 45.5%
Latino male	2 33.3%	4 66.7%
Latino female	2 40.0%	3 60.0%
White male	0	4 100%
White female	5 50.0%	5 50.0%
Other male*	6 31.6%	13 68.4%
Other female	1 25.0%	3 75.0%

\*3/4 of the "Other" category were perceived to be from India

There is, however, a significant relationship between the gender of the clerk and the race of the buyer.

- Of the female clerks who sold the beer, 82.4% of the sales were to African American buyers ( $p < .05$ )
  - 80% of White female sales were to African American males
  - 66.7% of African American female sales were to African American males
- 45.5% of African American male clerk sales were to African American males, but 36.4% of their sales were to White females. (not statistically significant)

## Time of the sale

There is a statistically significant relationship between the time of the attempted buy and the sale. The earlier the attempt, the higher the likelihood that the sale would be made ( $r = -.269$ ,  $p < .006$ ). Only two sales were made after 9:14. All sales were made between 7:55 and 10:00 regardless of day or week.



## Location of buys

The locations of the stores are shown in the map below. It needs to be noted that these locations were randomly selected from within the “easy to get” zip codes as identified by students. Red dots show stores that sold twice, yellow dots for stores that sold once and green dots show stores that did not sell. High schools are also shown on the map.

## Conclusion

This research shows that the perception by students that access to alcohol in Charlotte-Mecklenburg is easy and that it can be purchased without an ID is supported. When 63% of the establishments sold at least once in two random attempts there is a problem of consistency in the application of the law.

There is no basis in this research to explain why, but data collected for the CMDFC from the Fall 2005 Community Survey by UNCC revealed that while 80% indicated disapproval of the statement that persons under 21 should be able to drink alcohol with parental supervision, 86%, when asked to give an age when youth should be allowed to drink, indicated an age of 18 or younger (Average, 17.3).

This suggests that there is incongruity between public attitudes and the law and that there is likely no consistent message being conveyed in the community regarding underage drinking. Individual clerks in individual establishments are making decisions about when to apply the law.

From a coalition perspective there needs to be both a short and long-term approach to the ease with which underage persons can access alcohol through establishments with licenses to sell alcohol. Short-term we need to reinforce the need for businesses to adequately train and monitor their clerks. Long-term we need to better highlight the reasons and rationale for the law and also increase the public’s awareness of the problems and dangers of underage drinking so that the social norms can change just as they have about the use of seat belts and smoking.

# Charlotte-Mecklenburg Drug-Free Coalition Underage Alcohol Purchase Study in Selected Zip Codes

Prepared by Research and Training Specialists, Inc., June 2006

