

The burden of alcohol on the well-being of college students

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Long history of excessive drinking on college campuses

COLUMBIA BOYS RUN RIOT.

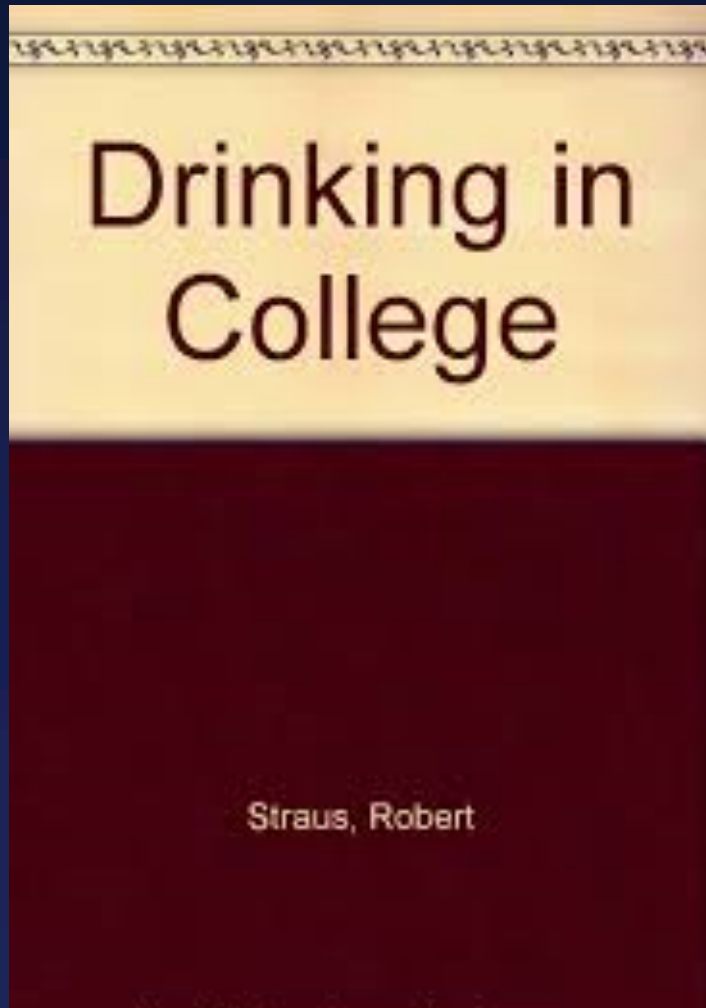
*HIGH OLD TIMES IN THE TENDER-
LOIN PRECINCT LAST NIGHT.*

They Paraded Broadway Cheering and Invaded the Theatres, Winding Up with a Free Fight with the Police in Front of Hammerstein's Victoria—Some Arrests.

The college boys made things lively in the Tenderloin last night. Capt. Price of the West Thirtieth street police station remarked at midnight that he had not seen a single Columbia man the worse for liquor.

1899 – Columbia University

First major academic work on college drinking published in 1953



80% of college males and 49% of college females reported being drunk at some point in their lives



Things have changed

- Drinking by young women in college escalated and now exceeds drinking by men for some measures
- Getting highly intoxicated (e.g., “blackout drunk”) has become the objective for many students
- We have learned a lot about the health effects of alcohol, including its role in self-medicating mental health issues

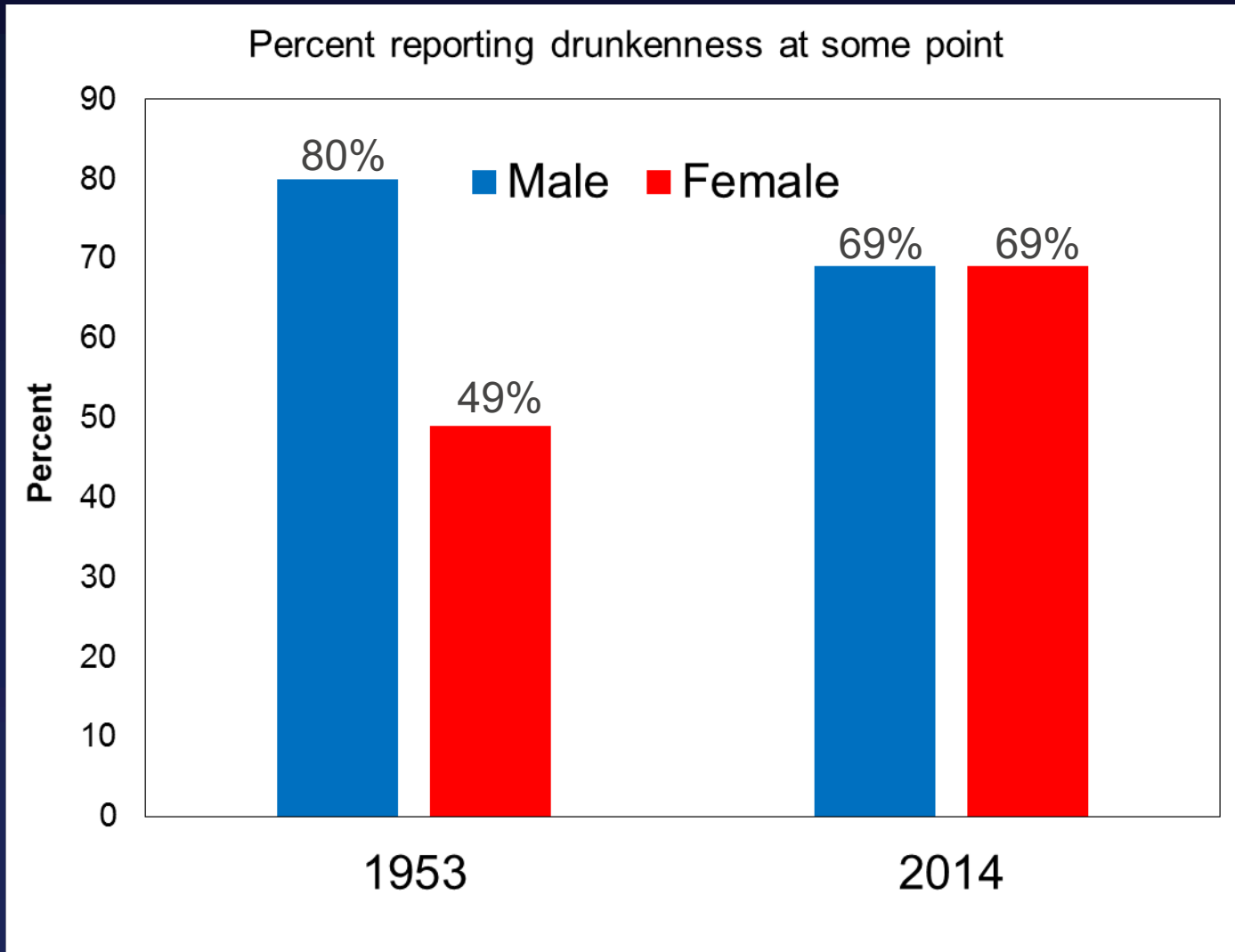


DRUG USE AMONG AMERICAN HIGH SCHOOL STUDENTS, COLLEGE STUDENTS, AND OTHER YOUNG ADULTS

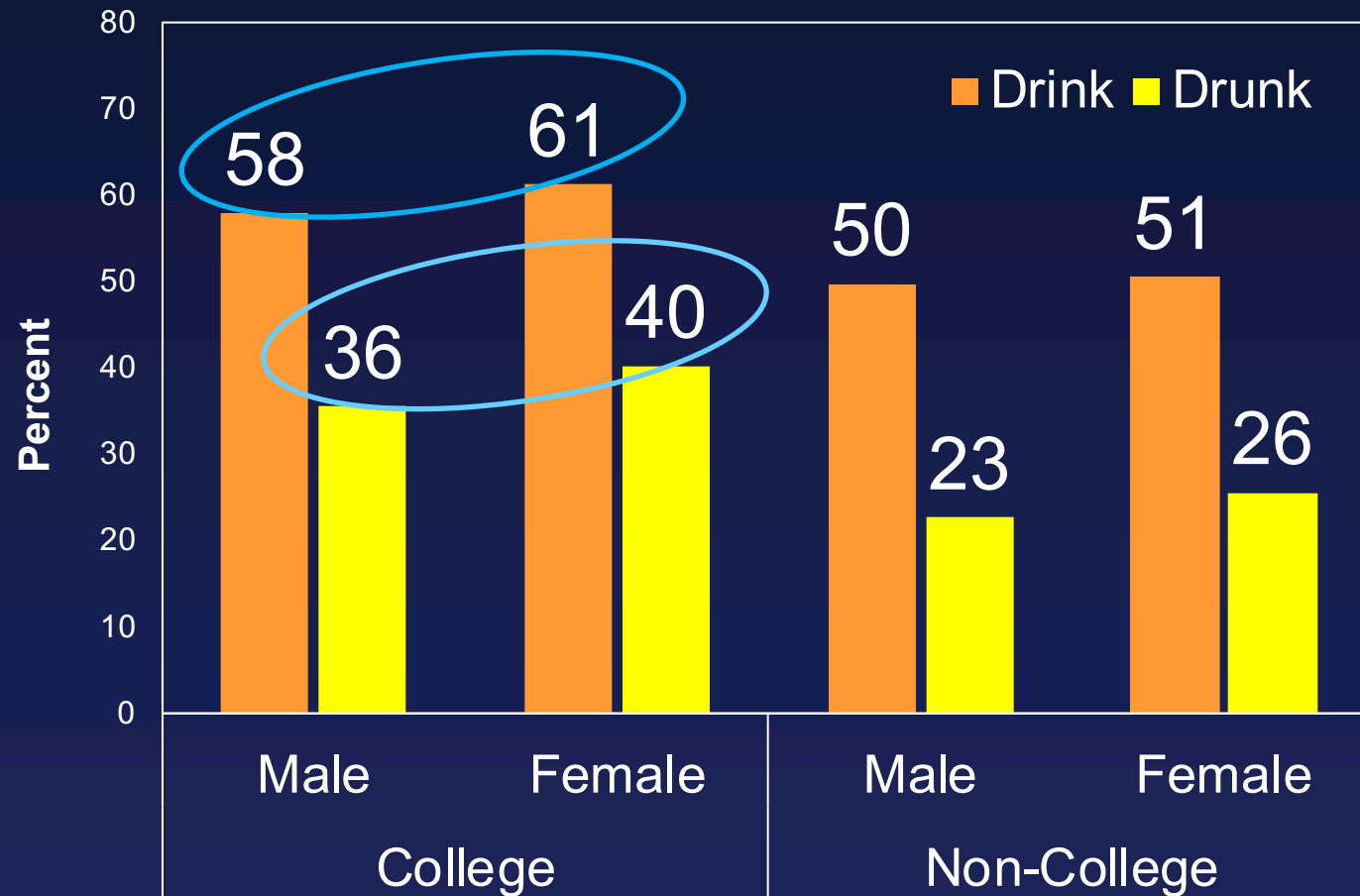
National Trends through 1985

- The sex differences in alcohol use have narrowed slightly since 1975. For example, the thirty-day prevalence rates for males and females differed by 12.8% in 1975 (75.0% vs. 62.2% respectively), but that difference was down to 7.7% by 1985 (69.8% vs. 62.1%).
- Although males are far more likely than females to have five or more drinks in a row during the prior two weeks (48% vs. 28%), there is practically no difference in the proportion of them who had at least one drink during that same interval (44% vs. 42%).

Narrowing gender gaps



Gender gaps in alcohol use in college and non-college young adults have reversed



Drink = Past month
Drunk = Past month

Today's young adults are pushing the limits

College students aged 19-20 past two week drinking

12.4% consumed 10+ drinks on an occasion

5.1% consumed 15+ drinks on an occasion

Non-college aged 19-20 past two week drinking

9.0% consumed 10+ drinks on an occasion

3.5% consumed 15+ drinks on an occasion

All 18-24 year olds intensity of most recent binge

Average 9.5 drinks

ED visits for excessive drinking among young adults 18-24

Increased 33% (261,308 to 347,539) b/w 2006-2014

Sources: Patrick, M. E., and Azar, B. (2018). High-intensity drinking. Alcohol Res. Curr. Rev. 39, 49–55.; Naimi TS, Nelson DE, Brewer RD. (2010) The intensity of binge alcohol consumption among U.S. adults. Am J Prev Med. 2010;38(2):201-207; White et al, 2018

Alcohol has a narrow safety margin

- Alcohol has a small Therapeutic Index (TD_{50}/ED_{50})
- A toxic dose is not much higher than a moderately intoxicating dose
- Average and median BAC among 693 people who died from alcohol poisoning was **0.36%**. (Jones and Holmgren, 2003)

Potentially fatal alcohol overdoses: How much alcohol?

If $ED_{50} = \sim .05\%$
And $TD_{50} = \sim .35\%$
Then $TI = \sim 7$

11 drinks in 3 hrs for
a 140 lb female

15 drinks in 3 hrs for
a 160 lb male



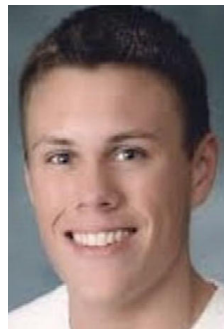
BAC = 0.32%



BAC = 0.43%



BAC = 0.38%



BAC = 0.35%



BAC = 0.48%



BAC = 0.44%

Caffeinated Booze Four Loko, Not Drugs, Sickened Students at Party

Oct. 25, 2010



“Police said some 50 students became sick after consuming large amounts of the controversial but legal beverage Four Loko...

...The blood-alcohol content of students ranged from .12 percent to .335 percent. In Washington, 0.08 is the legal limit for intoxication. 0.3 can be lethal.

Nine students were hospitalized after the Oct. 8 party at a house where about 50 people had been drinking.

Authorities at the time said they did not believe incident was a result of heavy drinking, but that someone had surreptitiously slipped drugs, possibly date rape drugs, into people's drinks. Police today said there was no evidence of drugs found, only the energy drink.”

More insidious harms – Alcohol and mental health

Past Year Mental Health Measure	Full-Time Male College Students (2017)	Full-Time Female College Students (2017)
SUICIDE BEHAVIOR AND TREATMENT³		
Had Serious Thoughts of Suicide ⁴	7.2	12.6
Made Any Suicide Plans	1.8	4.5
Attempted Suicide	1.2	1.5
Received Medical Attention for Suicide Attempt	0.6	0.7
Stayed Overnight or Longer in a Hospital for Suicide Attempt	0.2	0.2
LEVEL OF MENTAL ILLNESS⁵		
Any Mental Illness	19.4	30.8
Serious Mental Illness	4.8	10.2
Any Mental Illness Excluding Serious Mental Illness	14.6	20.6
No Mental Illness	80.6	69.2
MAJOR DEPRESSIVE EPISODE⁶	10.6	17.2
MENTAL HEALTH SERVICES⁷		
Inpatient	0.3	1.0
Outpatient ⁸	7.6	13.8
Prescription Medication	8.8	15.1

Majority of serious but non-fatal drug overdoses are suicide-related for adolescents and young adults

In 2008, 72% of drug overdose hospitalizations for adolescents were intentional, 64% for young adults and 48% for adults 25+

Excessive alcohol noted in 20% of cases

Rates of hospitalizations for drug poisoning in US, 1999-2008.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Adolescents (12-17)										
All drug poisoning	69.96	74.36	74.63	68.42	67.82	70.05	64.84	61.20	58.65	58.26
Intentionality										
Suicidal	49.42	52.84	52.21	48.14	47.09	50.41	45.62	41.74	40.10	41.70
Accidental	10.39	9.88	10.41	9.49	9.59	9.40	10.24	9.79	9.04	10.21
Other	10.14	11.65	12.01	10.78	11.13	10.24	8.98	9.67	9.51	6.35
Young Adults (18-24)										
All drug poisoning	83.21	84.37	96.91	92.13	92.58	98.38	97.11	98.85	100.98	107.91
Intentionality										
Suicidal	54.90	55.78	64.10	59.31	58.94	64.68	61.55	59.70	63.18	68.95
Accidental	14.77	13.75	15.61	15.92	16.36	17.72	18.39	21.33	19.73	23.27
Other	13.54	14.83	17.20	16.90	17.28	15.98	17.17	17.81	18.07	15.69
Adults (25+)										
All drug poisoning	72.35	73.87	78.94	82.05	83.54	91.42	91.92	99.74	100.97	109.06
Intentionality										
Suicidal	37.51	37.96	41.02	41.28	40.96	45.42	43.53	44.69	46.20	51.75
Accidental	20.50	20.06	20.78	24.17	25.66	28.33	29.31	34.49	33.98	39.75
Other	14.34	15.85	17.13	16.59	16.92	17.68	19.09	20.56	20.79	17.55

Drinking to cope is a slippery slope

Mental health reported by 73,912 college students at 140 schools in 2018 – American College Health Association

Topic	Percent in past year
Diagnosed and/or treated in past year for	
<i>Anxiety</i>	22.3%
<i>Depression</i>	18.4%
<i>Insomnia</i>	5.5%
<i>Substance abuse or addiction</i>	1.2%
Top three things that impact academic performance	
<i>Stress</i>	35.3%
<i>Anxiety</i>	28.1%
<i>Depression</i>	19.8%
Reported feeling	
<i>Hopeless</i>	55.0%

And between 1987 and 2014, the percentage of student who socialized with friends 16+ hrs per week decreased from 37.9% to 18% and the percentage who partied less than an 1 hour per week increased from 24.3% to 61.4%

Drinking to cope is a slippery slope

- Using alcohol to cope can be alluring but unsustainable
- Repeated drinking leads to tolerance and rebound anxiety when the alcohol wears off.
- Several studies suggest that college students who drink to cope with negative affect develop worse anxiety and more alcohol-related problems

(e.g., Armeli et al, 2015; 2016; 2018).

“Our findings are consistent with the notion that DTC motivation confers a unique vulnerability for emotion dysregulation, and that drinking for such reasons possibly prolongs or exacerbates negative affective states.”

Thank You!

Special Thanks:

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