The Impact of Alcohol on Institutional Priorities: 
*Student Success, Academic Performance, Financial and Risk Management*

Helen Stubbs  
*Vice President of Higher Education*  
January 31, 2014
Applying Systems Thinking to Student Health & Wellness

“Vision without systems thinking ends up painting lovely pictures of the future with no deep understanding of the forces that must be mastered to move from here to there.”

— Peter Senge
The Fifth Discipline: The Art and Practice of The Learning Organization
Connecting Student Behaviors to Critical Institutional Issues

- Interpersonal Violence
- Sexual Assault
- Alcohol Use
- Cyber stalking
- Cyber bullying
- Marijuana Use
- Hazing
- Financial Stress
- Other Drug Use

**STUDENT**
- Social well-being
- Mental health
- Student engagement
- Academic engagement

**INSTITUTION**
- Student success
- Retention
- Reputation
- Liability/Legal Costs
Alcohol Use a Major Driver of Campus Liability

General Campus Liability Claims, 2004 - 2008

- **Slips and Falls**: 29%
- **Assaults**: 20%
- **Vehicle and Other Accidents**: 19%
- **Athletics**: 9%
- **Property**: 7%
- **Mental/Physical Health**: 7%
- **Other**: 10%

- Sexual assaults accounted for 66% of all assaults. Half occurred in on-campus residential buildings.
- Of 16 fatalities resulting from slips and falls, 11 were related to alcohol consumption.

College Completion on Everyone’s Agenda

**Federal Government**

Proposed Legislation:
- $3 billion for a College Access and Completion Fund
- Funding for innovative strategies to promote college completion rates, particularly for under-represented groups
- Resources to assist states in developing programs to evaluate student success programs

Final Bill:
- Partnered with healthcare reform, student aid bill becomes an “exercise in compromise”
- $3 billion reduced to $750 million for existing College Access Grant program

**State Governments**

Tennessee Embraces Performance-Based Funding
- 5% of total state higher education budget based upon student improvement and performance
- Shifts incentive structure from enrollment to outcomes (time to degree, graduation, retention, etc.)

Other States Experimenting with Performance-Based Funding
- Alaska
- Arkansas
- Hawaii
- Indiana
- Louisiana
- New Mexico
- Ohio
- Oklahoma
- Pennsylvania
- Texas
- Washington

**Private Sector**

Foundation and Corporate Initiatives

COMPLETE COLLEGE AMERICA
- 21 states joined alliance in first year, commit to setting completion goals, developing action plans and measuring progress

LUMINA
- Goal of getting 60% of Americans to hold college degrees or credentials by 2025 (50% increase over current levels)

Other Private Sector Organizations Investing in Retention
- Bill and Melinda Gates Foundation
- Carnegie Corporation
- Delta Project
- Jobs for the Future
- Ford Foundation
- Walmart
- WK Kellogg
Retention Largely Viewed as an Academic Issue

Cassat University’s Retention Committee

ACADEMIC AFFAIRS (13)
- VP, Academic Affairs (Co-Chair)
- Dean, College of Arts and Sciences
- Dean, Business School
- Dean, College of Education
- AVP, Special Projects
- Director of Institutional Assessment
- Director of Extended Programs
- Academic Advisor
- 5 Faculty members

STUDENT AFFAIRS (6)
- VP, Student Affairs (Co-Chair)
- Director of Student Development
- Director of Admissions
- Director of Career Services
- AOD Coordinator
- Retention Specialist

Retention Committee Agenda Items
- Tutoring program update
- Report on Advising Center volume
- Training for academic advisors
- Review first-year experience program

OTHER (1)
- Athletic Director
The Need for Addressing the Whole Student

No One Cause for Attrition...

...and No Single Solution

Impact of a $500 per Student Increase in Spending on Six-Year Graduation Rates

**Linking High-Risk and Academics**

- Got a hangover
- Missed a class
- Got behind in schoolwork
- Performed poorly on an assignment

Significant positive correlations in the range of: $r = .20 - .24$

AlcoholEdu Data Set 2008-2009

*Note: See Appendix page 90 for additional studies linking high-risk drinking to academic performance*
The Toll of Drinking on Grade Point Average

<table>
<thead>
<tr>
<th>Frequency of heavy episodic drinking in past two weeks</th>
<th>1 Occasion</th>
<th>2 Occasions</th>
<th>3 Occasions</th>
<th>4 Occasions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3%</td>
<td>1%</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td>11%</td>
<td>14%</td>
<td>16%</td>
</tr>
</tbody>
</table>

The probability of a high GPA decreases as frequency of drinking increases.

---

1 Ranges reflect variations in responses for research universities, co-ed colleges and women’s colleges.

Focusing on Inputs, Not Outcomes

**Hours Spent per Week**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studying</td>
<td>8.7</td>
</tr>
<tr>
<td>Drinking Alcohol</td>
<td>10.2</td>
</tr>
</tbody>
</table>

N=30,183 first-year students (drinkers only)

**Percentage Studying 6+ Hours per week**

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>47%</td>
</tr>
<tr>
<td>2001</td>
<td>35%</td>
</tr>
<tr>
<td>2009</td>
<td>32%</td>
</tr>
</tbody>
</table>

50% of students who drink spend more time drinking than studying

Leading Predictors of Academic Success

#1 STUDYING OUTSIDE OF CLASS

#2 ALCOHOL CONSUMPTION

#3 ATTENDING CLASS

#4 VOLUNTEERING

#5 WATCHING TV/ONLINE ACTIVITY

Alcohol consumption is a leading predictor of academic success.

Source: Regression analysis of AlcoholEdu National Data Set, 2010-2011
Linking High-Risk Drinking and Student Engagement

Frequency of Heavy Episodic Drinking  
(# occasions in prior 2 weeks)

<table>
<thead>
<tr>
<th>Negative Impact on Student-Faculty Interactions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.06**</td>
<td>.06*</td>
<td>.08*</td>
<td>.06+</td>
</tr>
<tr>
<td></td>
<td>.12**</td>
<td>.15**</td>
<td>.16**</td>
<td>.17**</td>
</tr>
</tbody>
</table>

**Largest negative effects at highest levels of drinking**

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>+p &lt; .10</td>
<td>*p &lt; .05</td>
</tr>
</tbody>
</table>

Involvement with faculty has a positive effect on:
- GPA
- Degree attainment
- Academic honors
- College satisfaction
Path Model Linking High-Risk Drinking and Retention

High Risk/Heavy Drinker

- Injuries and Deaths
- DUI Arrests
- Social Infractions
- Depression
- Academic Failure
- Academic Apathy
- Social Participation

Retention

+ indicates positive correlation, - indicates negative correlation.
Correlating Drinking and Graduation Rates

**Graduation Rate**
- Abstainer: 78%
- Moderate: 79%
- High-risk: 68%

*High-risk drinkers less likely to graduate*

**Voluntary Leave Rate**
- Abstainer: 19%
- Moderate: 19%
- High-risk: 27%

*High-risk drinkers more likely to withdraw voluntarily*

**Required Leave Rate**
- Abstainer: 3%
- Moderate: 3%
- High-risk: 5%

*High-risk drinkers more likely to be required to leave*

**Leading Predicators of Persistence:**
- #1 High School Success
- #2 Alcohol and Tobacco Use

Source: H. Wesley Perkins. NASPA National Conference. (March 2010).
Demonstrating the Connections Between AOD Use, Student Success & Intervention Impact

<table>
<thead>
<tr>
<th>Violation Type</th>
<th>Number of</th>
<th>Enrolled for fall</th>
<th>Not enrolled for fall</th>
<th>% attrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>First alcohol violation</td>
<td>233</td>
<td>145</td>
<td>88</td>
<td>37.8</td>
</tr>
<tr>
<td>Attended alcohol referral</td>
<td>192</td>
<td>138</td>
<td>54</td>
<td>28.1</td>
</tr>
<tr>
<td>Did not attend alcohol referral</td>
<td>41</td>
<td>7</td>
<td>34</td>
<td>82.9</td>
</tr>
<tr>
<td>Second alcohol violation</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Attended BASICS</td>
<td>12</td>
<td>7</td>
<td>5</td>
<td>41.7</td>
</tr>
<tr>
<td>Did not attend BASICS</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>62.5</td>
</tr>
<tr>
<td>Drug referral</td>
<td>29</td>
<td>7</td>
<td>22</td>
<td>75.9</td>
</tr>
<tr>
<td>Attended BASICS</td>
<td>15</td>
<td>7</td>
<td>8</td>
<td>53.3</td>
</tr>
<tr>
<td>Did not attend BASICS</td>
<td>14</td>
<td>0</td>
<td>14</td>
<td>100</td>
</tr>
</tbody>
</table>
About the University of Denver’s Data

Data based on responses from **910** first-year students at University of Denver who completed all 3 AlcoholEdu for College surveys in the fall of 2012. An **additional 502** students completed Part 1 only, and so are not included in this sample.

Where available, data is benchmarked against the national aggregate (n = 311,000) and a custom selection of institutions implementing AlcoholEdu for College (n = 18,200): American University, Boston University, Colorado College, Colorado State U., Dartmouth College, Princeton University, Santa Clara University, Stanford University, University of Denver, University of Miami, University of Southern California, and University of Vermont.
Profile of Incoming Students at University of Denver

Non-drinkers: 0 drinks in the past 2 weeks
Light/Moderate drinkers: 1-3 drinks for women; 1-4 drinks for men at least once in the past 2 weeks
High-risk drinkers: 4+ drinks for women; 5+ drinks for men at least once in the past 2 weeks
(includes Problematic drinkers – 8+ drinks for women; 10+ drinks for men)
Examining Changes in Drinking Rates

- **Non-drinkers**
  - National Average: 58%
  - Peer Group: 51%
  - Univeristy of Denver: 49%

- **Light/moderate drinkers**
  - National Average: 16%
  - Peer Group: 19%
  - Univeristy of Denver: 19%

- **High-risk drinkers**
  - National Average: 26%
  - Peer Group: 29%
  - Univeristy of Denver: 33%

*Includes: 7.5% Problematic for non-drinkers, 7.0% Problematic for light/moderate drinkers, 8.5% Problematic for high-risk drinkers.*
Negative Academic Consequences of Drinking at DU

Student-reported academic consequences as a result of drinking

- Performed poorly on an assignment:
  - University of Denver: 16%
  - Peer Group: 17%
  - National Average: 19%

- Got behind in schoolwork:
  - University of Denver: 24%
  - Peer Group: 26%
  - National Average: 25%

- Missed a class:
  - University of Denver: 19%
  - Peer Group: 16%
  - National Average: 18%
Examining Drinks by Day of the Week at DU

Average number of drinks per day

snapshot of a 3-week period of time during the fall semester. As drinking rates are impacted by academic calendars, events, holidays, etc., these rates may not be reflective of drinking patterns across the entire semester.
Hobart’s Classes Mapped to Student Alcohol Consumption

BAC and survey data collected at HWS

Friday Enrollment Patterns and Thursday Night Drinking

Average Number of Friday Classes per Student (green bars)

Thursday Night

Other School Night

Risky Drinking Students*

*Risky drinking: students with a blood alcohol concentration (BAC) measured at .05 or higher, determined by breathalyzer.
Drinking-Related Risk Behaviors

The most common drinking-related risk behaviors that University of Denver students engage in are pre-gaming and doing shots.

When you drink, to what degree do you do the following?:

- Choose a drink containing more alcohol: 22% (University of Denver), 21% (National Average), 22% (Peer Group)
- Chug alcohol: 19% (University of Denver), 22% (National Average), 20% (Peer Group)
- Do shots: 51% (University of Denver), 46% (National Average), 49% (Peer Group)
- Start to drink before going out (pre-game): 51% (University of Denver), 47% (National Average), 49% (Peer Group)

Note: Graph represents grouped responses of 5, 6, and 7 on a 7-point scale (1 = not at all; 7 = always) for drinkers only.
Key Finding: Students often use pregaming as a social lubricant or to avoid the expense of drinking at other venues.

**TOP 5 REASONS FOR PREGAMING**

- Get a buzz before I go to an event
- Feel more comfortable when I go out to an event
- Save money so I don’t have to buy as many drinks at the event
- Drink in a safer environment
- Make it easier to connect with people at the event

**Implications:**

Stemming the practice of pregaming will require addressing related challenges and anxieties student face around socialization. Efforts to dispel myths about the “safety” of pregaming are also recommended.
Motivations for Pregaming Vary By Sex

Key Finding: Women and men pregame for distinct reasons.

<table>
<thead>
<tr>
<th>Top Reasons for Males</th>
<th>Top Reasons for Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>To make it easier to hook up at the event (15%)</td>
<td>To get a buzz before I go to the event (36%)</td>
</tr>
<tr>
<td>To make it easier to talk to a person I might be attracted to at the event (13%)</td>
<td>To feel more comfortable when I go to the event (26%)</td>
</tr>
<tr>
<td>To get drunk before I go to the event (10%)</td>
<td>To drink in a safer environment (25%)</td>
</tr>
</tbody>
</table>

**Implications:**
Education and social marketing efforts should consider these gender differences and tailor messages accordingly (e.g., focusing on dispensing myths about social benefits versus perceived protective factors of pregameing.)
## Pregaming Predictive of Multiple Negative Outcomes

<table>
<thead>
<tr>
<th>Pregaming Significantly Predicts:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>↑</strong> Increases in negative drinking-related consequences</td>
</tr>
<tr>
<td><strong>↓</strong> Decreases in healthy drinking behaviors</td>
</tr>
<tr>
<td><strong>↑</strong> Increases in unhealthy drinking-related consequences</td>
</tr>
<tr>
<td><strong>↑</strong> Increases in acceptability of negative drinking behavior</td>
</tr>
<tr>
<td><strong>↑</strong> Increased total drinks during past two weeks</td>
</tr>
<tr>
<td><strong>↑</strong> Increased incidence of Heavy Episodic Drinking</td>
</tr>
<tr>
<td><strong>↑</strong> Increased incidence of Problematic Drinking</td>
</tr>
</tbody>
</table>
Negative Consequences & Correlates of Alcohol Use at DU

- **University of Denver**
- National Average
- Peer group

**Data collected in Survey 3, 30-45 days after completing AlcoholEdu for College. Percentages represent the number of students who report experiencing a particular consequence at any time in the past two weeks.**

**Blacked out**
- University of Denver: 35%
- National Average: 34%
- Peer group: 33%

**Was taken advantage of sexually**
- University of Denver: 13%
- National Average: 12%
- Peer group: 12%

**Did Something You Regretted**
- University of Denver: 34%
- National Average: 32%
- Peer group: 33%

**Took advantage of someone sexually**
- University of Denver: 7%
- National Average: 8%
- Peer group: 7%
Past 2-Week Marijuana Use at DU

- DU: 21%
- National: 12%
- Peer: 17%
Understanding Risky Behaviors and Consequences

95.3% of Marijuana users reported drinking in the past two weeks

DUAL USERS

More likely to get behind the wheel

More likely to have difficulty socially

More likely to perform poorly academically
Calculating the Institutional Cost of Alcohol

<table>
<thead>
<tr>
<th>Cost Categories</th>
<th>Definition</th>
<th>Key Metrics</th>
<th>Annual Alcohol Costs at DU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attrition</td>
<td>Replacement costs for students who leave for alcohol-related reasons</td>
<td>15% attrition due to alcohol</td>
<td>$50,652</td>
</tr>
<tr>
<td>Counseling Services</td>
<td>Dollar amount of staff time spent on alcohol-related cases</td>
<td>15% Counseling staff time, # FTEs</td>
<td>$39,722</td>
</tr>
<tr>
<td>Adjudication</td>
<td>Dollar amount of staff time spent on alcohol-related cases</td>
<td>80% Judicial Affairs staff time, # FTEs</td>
<td>$117,696</td>
</tr>
<tr>
<td>Public Safety</td>
<td>Dollar amount of staff time spent on alcohol-related incidents</td>
<td>15% Campus Safety staff time, # FTEs</td>
<td>$119,167</td>
</tr>
<tr>
<td>Non-Billable Property Damage/Cleanup</td>
<td>Capital expenditure and time spent; costs not accounted for in student fees</td>
<td>55% property damage due to alcohol; per student costs</td>
<td>$37,929</td>
</tr>
</tbody>
</table>

**Total Cost** $327,177
DU’s Revenue Loss Due to Alcohol-Related Attrition

### Metrics Used

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,407 students in first-year class</td>
<td></td>
</tr>
<tr>
<td>88% first to second year retention</td>
<td></td>
</tr>
<tr>
<td>15% alcohol-related attrition</td>
<td></td>
</tr>
<tr>
<td>$26,700 net annual tuition</td>
<td></td>
</tr>
</tbody>
</table>

### Key Assumptions to the Model:

- Students would have stayed in school 3 more years with 5% tuition inflation
- Only includes attrition from Year 1 to Year 2
- Does not include offsetting transfer student revenue
- Net tuition per student calculated net of all institutional grant aid provided

Source: Lake Forest College data, www.collegeresults.org; The Delta Project www.tcs-online.org

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# Addressing Retention by First Addressing Alcohol at Frostburg State

## Improvements Across the Board at Frostburg State

<table>
<thead>
<tr>
<th>Category</th>
<th>1997/2004</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-Risk Drinking Rate:</td>
<td>59%</td>
<td>43%</td>
</tr>
<tr>
<td>Percentage of Abstainers:</td>
<td>40%</td>
<td>57%</td>
</tr>
<tr>
<td>Average Number of Drinks Consumed by Drinkers:</td>
<td>9.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Total Enrollment:</td>
<td>4252</td>
<td>4755</td>
</tr>
<tr>
<td>Retention Rate:</td>
<td>68%</td>
<td>72%</td>
</tr>
</tbody>
</table>

**ALCOHOL PREVENTION INITIATIVES:**
- BASICS
- Social norms marketing
- Online education
- Substance-Free housing
- Parental notification
- Peer Engagement
- Responsible beverage service training
- Social marketing
- Alcohol-free options
Prevention Efforts Align with DU’s Strategic Goals

**Mission:** The mission of the University of Denver is to promote learning by engaging with students in advancing scholarly inquiry, cultivating critical and creative thought and generating knowledge.

**Institutional Goals:**

- **Community**—We will create a diverse, ethical, and intellectually vibrant campus community to provide a challenging and liberating learning environment.

- **Learning**—We will provide an outstanding educational experience that empowers students to integrate and apply knowledge from across the disciplines and imagine new possibilities for themselves, their communities, and the world.

- **Scholarship**—We will invigorate research and scholarship across the university to address important scientific, sociopolitical and cultural questions of the new century.
## Partner Self-Test

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>yes</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Do individuals outside of Student Affairs play a role in achieving your institution’s prevention objectives?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Are senior-level administrators—your president, provost, board members—committed to making improvements on the alcohol issue?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Have you successfully linked alcohol prevention to mission-critical priorities (retention, student engagement, student success, financial performance?)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Is funding for alcohol prevention largely derived from hard dollars in the budget (versus grant dollars)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Is student health and wellness mentioned as a key priority in your institution’s strategic plan?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Does your institution regularly measure and report key indicators of student health?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Has your institution articulated specific, measurable goals for improving student health and wellness?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Does your institution hold any senior-level administrators accountable for student health outcomes (e.g., high-risk drinking)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Have you developed strategies for sustaining engagement among key stakeholders?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Trends in Favor of Creating Healthy Environments

12TH GRADE ALCOHOL USE TRENDS IN OUR FAVOR

High-Risk* Drinking

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>31%</td>
</tr>
<tr>
<td>2011</td>
<td>22%</td>
</tr>
</tbody>
</table>

*Defined as having 5 + drinks within the last 30 days

Historic low

30-day Prevalence of Being Drunk

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>33%</td>
</tr>
<tr>
<td>2011</td>
<td>25%</td>
</tr>
</tbody>
</table>


Alcohol Use Among Incoming FYS

NON-DRINKERS

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>59%</td>
</tr>
<tr>
<td>2008</td>
<td>62%</td>
</tr>
<tr>
<td>2009</td>
<td>62%</td>
</tr>
<tr>
<td>2010</td>
<td>62%</td>
</tr>
<tr>
<td>2011</td>
<td>64%</td>
</tr>
<tr>
<td>2012</td>
<td>68%</td>
</tr>
</tbody>
</table>

HIGH-RISK DRINKERS

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>25%</td>
</tr>
<tr>
<td>2008</td>
<td>24%</td>
</tr>
<tr>
<td>2009</td>
<td>24%</td>
</tr>
<tr>
<td>2010</td>
<td>24%</td>
</tr>
<tr>
<td>2011</td>
<td>22%</td>
</tr>
<tr>
<td>2012</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: AlcoholEdu National Survey Database
Creating and Supporting Institution-Specific Strategies for Success

**STEP 1** Complete Diagnostic

**STEP 2** Follow-up Discussion

**STEP 3** Action Plan Delivered

Ongoing Support

Phone consultations to gather information, identify key challenges, and determine next steps

Research and best practice case studies on the topics deemed critical to success

Tools and resources to support recommended strategies