Is it Time to Revisit Tobacco Policies on University Campuses?

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Abstract:
An interdisciplinary team of faculty and students at Southern Illinois University Edwardsville (SIUE) examined policies and tobacco use patterns in 2004–2005. Nationally, overall tobacco use patterns have declined, although tobacco use patterns among college students have not followed the same trend (American College Health Association, 2010). SIUE policy prohibiting indoor tobacco use preceded adoption of the Smoke-free Illinois Act (2008) by more than a decade. However, there have been few changes in university tobacco policy since this act became law. As evidence mounts about the harmful effects of environmental tobacco smoke, more universities and colleges are banning tobacco use both indoors and outdoors. Results from the 2004–2005 study will be presented in the context of new evidence about the dangers of environmental tobacco smoke along with suggestions for future discourse, research, and policy directions for tobacco use on campus.

Literature Review
Tobacco use is one of the leading causes of death, disease, and disability worldwide. Every year in the United States over 400,000 people die from tobacco-induced illness, and for every death, there are 20 people living with serious, tobacco-related conditions. One half of smokers will die prematurely (Center for Disease Control and Prevention, 2007). Tobacco use among adults has generally declined since the first Surgeon General’s warning about the risks of smoking was issued in 1964. Unfortunately trends in tobacco use among young adults, especially those from 18–24 years old, began to climb in 1993 and have continued to climb until recently. The most recent data for this age cohort suggests some stabilization of tobacco use rates with the exception of white females (National Center for Health Statistics, 2010). Still, 4000 young people in the United States start smoking every day, adding to the escalating price tag for this complex issue. Direct costs of tobacco-related illness are estimated at $96 billion per annum with another $97 billion in loss of productivity (CDC, 2007).

Educational attainment is generally considered a protective factor for tobacco use. Over the last 35 years, tobacco use rates among adults without a high school
diploma have been 2–4 times higher than use rates among adults with Bachelor’s degrees or higher (NCHS, 2010). College students are a subset of the 18–24 year old age cohort and are also much less likely to smoke on a daily basis than 18–24 year olds overall. Yet, a substantial percentage (14%) of college students reported using tobacco within the last month (ACHA, 2010). However, these rates have declined considerably from a peak of 31% 10 years ago (Rigotti, Lee, & Wescleher, 2000).

People who experiment with tobacco before college often become regular smokers in college. “Although teenagers are the main group that initiate smoking, it is during the period of young adulthood that more established and committed cigarette use begins to take place,” (National Cancer Institute, 2008, p. 57). Given the well documented risks of smoking raises serious questions. Why do so many young adults, especially college students, initiate or commit to a behavior that is addictive and will likely decrease the quality and length of their life?

College students use tobacco for many reasons. College often represents the first time that young people are living away from their family of origin and are confronted with a myriad of behavioral choices. During these years, young people refine their adult identity and face many new stressors. Tobacco use is one way of coping with these developmental and situational stressors:

A young adult is leaving childhood on his way to adulthood. He is leaving the security and regiment of high school and his home. He is taking a new job; he is going to college; he is enlisting in the military. He is out on his own, with less support from his friends and family. These situations will be true for all generations of younger adults as they go through a period of transition from one world to another.... Dealing with these changes in his life will create increased levels of uncertainty, stress and anxiety.... During this stage in life, some younger adults will choose to smoke and will use smoking as a means of addressing some of these areas. (Harden, 1984, as cited in Ling & Glantz, 2002)

Smoking symbolizes adulthood, independence, or an expected behavior. In the most recent ACHA survey, students over-estimated the percentage of peers who used tobacco by a factor of nearly six times (ACHA, 2010). Having a peer group of smokers increases the likelihood that a young person will use tobacco or will increase the amount of tobacco they use (Wetter, Kenford, Welsch, et al., 2004).

Initiating, continuing, or increasing tobacco use, despite acknowledged risks is associated with expectations smoking helps regulate mood and control weight
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(DeBernardo, & Aldinger, 1999). These images of tobacco are largely attributable to successful, intensive, marketing efforts of the tobacco industry (NCI, 2008). Each day, the tobacco industry spends $36 million on marketing, a 200% increase over the last decade (CDC, 2007; Illinois Coalition Against Tobacco, 2005). College-age adults are the youngest, legal, target market for that industry. Marketing strategies for college students include distributing samples and sponsoring social events, both on and off campuses. These efforts have proven quite successful both in recruiting new college tobacco users, and promoting the transition from “social use” to daily use (Landman, et. al, 2002; Rigotti, et. al, 2003; Sepe, et al., 2002).

College campuses can counter efforts of the tobacco industry through a number of measures including social marketing and education. However, universities and colleges are either not providing information on the dangers of tobacco to the general student population, students are not receiving these messages, or they are choosing to disregard the warnings on the dangers of tobacco use. The most recent ACHA survey (2010) revealed that only 35% of students recalled receiving information on the dangers of tobacco. Even fewer students (22%) expressed interest in this information.

The American College Health Association Position Statement (2010) “encourages colleges and universities to be diligent in their efforts to achieve a 100% indoor and outdoor campus-wide tobacco-free environment.” Environmental tobacco smoke is a toxic contaminant, with no acceptable safe level. ACHA suggests policy specifics in guidelines published in September, 2009. Currently over 500 college campuses have varying degrees of policies limiting tobacco use (Institute of Medicine, 2010).

The National Collegiate Athletic Association (NCAA) is concerned with the well-being of student athletes. Tobacco is regarded as any other harmful drug. The NCAA prohibits tobacco use by student athletes and requires tobacco-prevention education every semester (NCAA, 2010). A systematic review reveals campus-based interventions are effective in reducing the number of students who use tobacco (Murphy-Hoefl, Griffith, Pederson, Crossett, Lyer, & Hiller, 2005).

Public health efforts to control tobacco have also proven effective in reducing tobacco use, but only when coordinated evidence-based approaches are adopted and funding is adequate (CDC, 2007). Effective public health approaches include state and community-wide interventions in: promotion of tobacco-free social norms, smoke free policies, policies restricting and enforcing tobacco sales, substantial taxes on tobacco products, culturally appropriate and impactful counter-marketing and education, available and affordable cessation services, as well as collecting on-going surveillance data. However, very few states or communities have been able to devote sufficient, sustained funding to efforts such as these (CDC, 2007; CDC, 2004; Guide to Community Preventive Services, 2010).
Results from the 2004–2005 Study

Description of Population

In 2004 there were 13,493 students enrolled at SIUE; approximately 22% who were living on campus. The undergraduate population comprised over 80% of the student body, with most students electing to pursue full-time course loads. At this time, the university employed approximately 2,300 faculty and staff (SIUE Factbook, 2005).

Survey Sample

A proportionate sample for each represented constituency (undergraduate and graduate students, faculty, and staff) was sought with a desired sample of approximately 500, representing 3% of the campus population. Surveys were distributed in classes by members of the research team during the fall semester to both undergraduate and graduate students from a variety of disciplines including arts, sciences, and professional programs of social work, engineering, and nursing. Undergraduate surveys were distributed in general education courses to net responses from freshmen and sophomores and distributed in interdisciplinary study (IS) courses to net responses from juniors and seniors. Students were informed that if they did not wish to participate, they should hand in blank surveys with the rest of the class. Only nine blank student surveys (approximately 2.5% of the 403 students surveyed) were returned.

Random numbers were used to draw a sample of faculty and staff. Surveys were distributed via campus mail. Two-hundred seven staff / faculty surveys were distributed, estimating that 30% would respond in an effort to maintain the proportionality of the sample. The 43% response rate from faculty and staff was slightly higher than expected. The total number of usable surveys for this study was 482.

Instruments

A 21-item questionnaire was designed to elicit tobacco use patterns, attitudes and awareness about campus tobacco policies. Participants were informed the study was voluntary, survey responses were anonymous, and the study had been approved by the SIUE Institutional Review Board. No incentives were offered to any participants.

Eight key informants were interviewed to provide additional insight on existing tobacco policies and perceptions of tobacco use on campus. Key informants included representatives from athletics, health/wellness/counseling services, housing, student affairs, the provost’s office, and campus security, with all solicited informants agreeing to participate.

Data Analysis
Survey responses were coded and manually entered into SPSS, for Windows (Version 12.0). Data was also randomly spot-checked for accuracy. Data analysis included descriptive statistics, cross tabs, and Chi squares. Results were determined to be significant with probabilities ($p$ values) less than .05.

Handwritten notes were taken during key informant interviews. Gathered information and impressions were then further notated as field notes which were immediately typed by the interviewers. Interview data were later compared and contrasted for common themes (Miles & Huberman, 1994).

**Results**

Gender and race demographics of the sample, represented in Table 1, closely mirrored the general university population (SIUE Factbook, 2005).

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Demographic Profile of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Number</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Classification</td>
<td>Freshman</td>
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<tr>
<td></td>
<td>Sophomore</td>
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<td></td>
<td>Junior</td>
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<td>Senior</td>
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<td>Graduate</td>
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<td></td>
<td>Faculty</td>
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<tr>
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<td>Staff</td>
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<tr>
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<td>Other</td>
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<td>Race &amp; Ethnicity</td>
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<td></td>
<td>African American</td>
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<tr>
<td></td>
<td>Asian</td>
</tr>
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<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

*Note: The race categories represent those that the University employed at the time of this study.*

**Tobacco Use Patterns**

Most of the respondents (67.1%) indicated they had never used tobacco, while 10.4% described themselves as former tobacco users (see Table 2). The 22.4% who reported current tobacco use varied in consumption patterns from daily to several times per month. Undergraduate students (25.9%) were more likely to report current tobacco use than any other groups, followed by staff (21.6%), graduate students (15.3%), and faculty (2.6%). These differences were significant ($X^2=12.094, df=3, p=.05$). More men (25.9%) than women (20.1%) reported current tobacco use, although these gender differences were not statistically significant ($p=.135$). Differences in tobacco use patterns by race were also non-significant.
Those who reported using tobacco were more likely to be surrounded by a peer group of tobacco users. Most (77.6%) of those reported never using tobacco estimate half or less of their peers use tobacco, while 56.6% of current or former report that half or more of their peers using tobacco ($X^2=54.27$, $df=1$, $p<.001$). Similarly, former or current tobacco users were more likely to report parents using tobacco ($X^2=6.624$, $df=1$, $p=.01$). These results are illustrated in Table 2.

Virtually all (97.8%) of the respondents who ever used tobacco began using tobacco by age 23. However, the greatest percentage (56.3%) reported initiating tobacco use during years associated with undergraduate education (ages 17–23).

### Table 2
**Selected Demographic and Social Influences on Tobacco Use**

<table>
<thead>
<tr>
<th></th>
<th>Never Used (329)</th>
<th>Current User (105)</th>
<th>Former User (45)</th>
<th>$\chi^2$</th>
<th>$df$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>118 (61.4%)</td>
<td>51 (26.6%)</td>
<td>23 (12.0%)</td>
<td>7.59</td>
<td>2</td>
<td>.023</td>
</tr>
<tr>
<td>Female</td>
<td>209 (73.3%)</td>
<td>54 (18.9%)</td>
<td>22 (7.7%)</td>
<td>7.59</td>
<td>2</td>
<td>.023</td>
</tr>
<tr>
<td><strong>Status</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Undergrad.</td>
<td>219 (65.6%)</td>
<td>86 (25.7%)</td>
<td>29 (8.7%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate</td>
<td>49 (83.1%)</td>
<td>9 (15.3%)</td>
<td>7 (1.7%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>26 (74.3%)</td>
<td>1 (2.9%)</td>
<td>8 (22.9%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>3 (66.0%)</td>
<td>10 (20.0%)</td>
<td>7 (14.0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>3 (100.0%)</td>
<td>0</td>
<td>0</td>
<td>24.29</td>
<td>8</td>
<td>.002</td>
</tr>
<tr>
<td><strong>Peer Use</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>55 (94.8%)</td>
<td>1 (1.7%)</td>
<td>2 (3.4%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$&lt; \frac{1}{2}$</td>
<td>211 (14.8%)</td>
<td>41 (14.5%)</td>
<td>30 (10.6%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\frac{1}{2}$</td>
<td>44 (50.6%)</td>
<td>36 (41.3%)</td>
<td>7 (8.0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$&gt; \frac{1}{2}$</td>
<td>19 (36.5%)</td>
<td>27 (51.9%)</td>
<td>6 (11.6%)</td>
<td>77.55</td>
<td>6</td>
<td>&lt;.001</td>
</tr>
<tr>
<td><strong>Parents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don’t Use</td>
<td>178 (73.0%)</td>
<td>43 (17.8%)</td>
<td>21 (8.7%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use</td>
<td>170 (66.1%)</td>
<td>63 (24.5%)</td>
<td>24 (9.3%)</td>
<td>6.31</td>
<td>2</td>
<td>.023</td>
</tr>
</tbody>
</table>

### Beliefs and Attitudes Towards Tobacco

Questions were posed about the effects of second hand smoke. The majority (91.2%) of respondents acknowledged that second hand smoke is harmful, although there were some differences in the strength of this belief associated with tobacco use patterns. Those who did not believe, or were unsure about the harmful effects of second hand smoke, were more likely to be current or former tobacco users (17.5%, vs. 4.5% among those never using tobacco $X^2=22.758$, $df=2$, $p<.001$). Current and former tobacco users were asked about the impact of tobacco use on their present health. There were no statistically significant differences noted between these groups, however, differences became apparent when these respondents were asked to speculate about potential future health consequences of their tobacco use. The majority of current and former tobacco users alike believed their future health would be adversely effected by tobacco, although current users were much more likely to believe tobacco use would cause future health problems ($X^2=13.712$, $df=3$, $p=.003$).

While the majority of respondents (57.9%) were not particularly bothered by tobacco use around campus, there were significant differences in this perception,
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Based on tobacco use status. Among tobacco users, (92%) reported not being bothered by tobacco, while the majority of non-users (53%) reported being bothered ($p<.0001$). There were also differences based on status. The most obvious way to cope with the “bother” of tobacco for non-tobacco users would be to completely ban tobacco use on campus. However, an overwhelming majority of respondents (73%) did not support a campus-wide ban, yet voiced support (63.9%) for the current ban on smoking in campus housing. These opinions were tied to smoking status. In 2004 there were no tobacco cessation services available on campus, although a majority (83.9%) of respondents, without regard to tobacco use status, indicated that tobacco cessation services should be offered on campus.

**Key Informant Interviews**

Common themes and concerns from the eight key informant interviews included aesthetics, cost of cleaning tobacco waste, comfort for non-smokers, enforcement of present policy, university safety, and health concerns.

**Aesthetics**

A couple of examples of remarks of the negative aesthetics of tobacco from key informants were: “I see cigarette butts lying around certain areas, which is unsightly.” “Cigarette butts get thrown on the ground around entry ways look bad.”

**Cost**

Controlling costs is an ongoing concern for most universities. Prohibiting smoking in campus housing definitely saves money on cleaning costs. However the additional trash created by cigarette butts and wrappers was seen as a problem and an expense. “The physical effect of butts thrown on the ground is an ongoing cleaning problem.” “Cigarette butts are a huge problem around campus.”

**Comfort**

Beyond appearance there were concerns of comfort for non-smokers: “Making buildings smoke free changed the climate.” “There are people standing right outside the doors smoking.” “I believe they should create smoking huts away from the buildings.”

**Health and Safety**

The main concern expressed by the police department informant was non-compliance with fire safety and policy enforcement in campus housing indicated by past disarmament of smoke detectors: “Students are unhooking the smoke detectors.” Health concerns were raised by the Intercollegiate Athletics Department; specifically, tobacco’s addictive nature and the behavioral abuse.
Policy Enforcement
In 2004–2005 policy prohibited smoking in all campus buildings, including residence halls and all outdoor athletic events. Student conduct codes and employee discipline policies were applied for serious or persistent violations, although a common theme expressed by informants was that tobacco policy was difficult to enforce. The NCAA took a firmer anti-tobacco stand at that time, prohibiting athletes from using all forms of tobacco. Athletes violating this policy could be ejected by event officials or sanctioned by coaching staff (Halpin, 2006).

Tobacco Policy Today
In 2008 Illinois adopted a law prohibiting indoor smoking in public buildings and places of business. Smoking was and still is allowed outside of buildings. Illinois law specifies smokers gather no closer than 15 feet from building entrances. Building entrances continue to be popular places for smokers to gather. Because SIUE policy prohibiting smoking inside buildings preceded the law, few changes were needed after the law was enacted, save for moving smoking receptacles further from entrances and posting additional signage.

Are Changes in Order?
In the ensuing years since the survey and interviews, evidence is building suggesting tobacco policies should be reconsidered. More and more universities are banning tobacco use entirely on campuses. The U.S. Surgeon General 2006 report on the effects of second-hand smoke concluded there is no safe level of exposure to second-hand smoke for non-smokers, and the only way to ensure workers (and presumably students) are not exposed to second-hand smoke is to establish smoke-free workplaces (U.S. Department of Health & Human Services, 2006).

A substantial percentage (42%) of respondents reported being bothered by environmental tobacco smoke on campus. The Surgeon General’s report details ways in which environmental tobacco smoke can be bothersome including nasal irritation, odor, cough, and wheezing (USDHHS, 2006). Nearly all respondents acknowledged the dangers of second-hand smoke, although the strength of this belief was tempered by smoking status. The severity of these health consequences is outlined in the Surgeon General’s Report (2006) including lung cancer, asthma, decreased lung function, heart disease, and low birth weight for pregnant women exposed to second hand smoke. Additional information is emerging about the dangers of “third-hand” smoke, or residue of smoke that clings to clothing and hair even when smoke from the air clears. This third-hand smoke is “especially dangerous to children of smokers, but potential dangers exist for all children whose caregivers are around smokers” (DOE Lawrence, Berkley Laboratories, 2010; Winnickoff, et al., 2009).
In this study most of the tobacco users, or former users, indicated they started using tobacco in college. Undergraduate students were most likely to use tobacco and to be surrounded by peers who use tobacco. National data indicates students greatly over-estimate the percentage of people their age who use tobacco. Banning tobacco use on campus could, in theory, remove the social enterprise of smoking and modify students’ perceptions of the percentage of people who smoke.

The Center for Disease Control and Prevention (2006) recommends workplaces implement complete smoking bans and suggest offering cessation assistance to help smokers quit. The health and economic benefits in the workplace can be substantial to both workers and the organization (Hopkins, et al., 2010). Factors contributing to cost savings include: increased employee productivity, increases in attempts and successful attempts to quit, decreased cleaning costs, increased safety, and decreased insurance costs.

SIUE was ahead of many other universities in putting policies in place to curtail the use of tobacco products on campus. This study was conducted on behalf of the SIUE Tobacco Task Force to assess tobacco use patterns and policies and attitudes towards tobacco use. While acknowledging the dangers of second hand smoke, respondents did not support a complete ban on tobacco use. As increasing numbers of institutions, communities, and states adopt more aggressive measures to control tobacco exposure, attitudes among the population at SIUE may have shifted. Investigating current attitudes toward tobacco use on campus might provide greater support for more stringent tobacco use policies.

An aggressive social marketing campaign to increase awareness of the dangers of tobacco would be advised before instituting a campus-wide ban. However, though support for incentives to quit tobacco use and increased availability of smoking cessation services were overwhelmingly supported by respondents in this study, these incentives and services have been underutilized in the past. There are questions as to whether increased awareness and more restrictive policies would translate into increased participation in tobacco cessation programs. Whether tougher tobacco policies would be even more difficult to enforce is also an issue that needs to be revisited. Last, though this study did not specifically address the issue of healthcare costs, either directly accrued by the university or by individuals, future analysis of data pertaining to this issue is of paramount importance in any tobacco policy discussion.

References
American College Health Association National College Health Assessment

Centers for Disease Control and Prevention, National Center for Chronic
Disease Prevention U.S. Department of Health and Human Services, and
Health Promotion, Office on Smoking and Health. (2007). Best Practices
for Comprehensive Tobacco Control Programs—2007. Retrieved from
BestPractices_Complete.pdf

Centers for Disease Control and Prevention. (2006). Save lives, save money:
make your business smoke-free. Retrieved from
http://www.cdc.gov/tobacco/basic_information/secondhand_smoke-guides/
business/pdfs/save_lives_save_money.pdf.

Centers for Disease Control and Prevention. (2004). Sustaining State Funding
for Tobacco Control: The Facts. Retrieved from

Cigarette smoking among adults and trends in smoking cessation—United States
from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5844a2.htm#tab.

DeBernardo, R. L. and Aldinger, C. E. (1999). An e-mail assessment of
undergraduates' attitudes toward smoking. Journal of American College

DOE/Lawrence Berkeley National Laboratory. (2010). Carcinogens form
from third-hand smoke. ScienceDaily. Retrieved from


Amateur Baseball Umpires' Association. Retrieved from
http://www.umpire.org/modules.php?%20name=News&file=article&sid=3
2.

Harden, R. J. A perspective on appealing to younger adult smokers. R. J.
4943, as cited in Ling, P. & Glantz, S. (2002). Why and how the tobacco
industry sells tobacco to young adults: Evidence from tobacco industry

(2010). Smokefree policies to reduce tobacco use: a systematic review.
American Journal of Preventive Medicine, 38(2S), S275–S289. Retrieved from
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