

Wellness Lessons From Transportation Companies



MTI Report WP 11-01



MINETA TRANSPORTATION INSTITUTE

The Norman Y. Mineta International Institute for Surface Transportation Policy Studies was established by Congress in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The Institute's Board of Trustees revised the name to Mineta Transportation Institute (MTI) in 1996. Reauthorized in 1998, MTI was selected by the U.S. Department of Transportation through a competitive process in 2002 as a national "Center of Excellence." The Institute is funded by Congress through the United States Department of Transportation's Research and Innovative Technology Administration, the California Legislature through the Department of Transportation (Caltrans), and by private grants and donations.

The Institute receives oversight from an internationally respected Board of Trustees whose members represent all major surface transportation modes. MTI's focus on policy and management resulted from a Board assessment of the industry's unmet needs and led directly to the choice of the San José State University College of Business as the Institute's home. The Board provides policy direction, assists with needs assessment, and connects the Institute and its programs with the international transportation community.

MTI's transportation policy work is centered on three primary responsibilities:

Research

MTI works to provide policy-oriented research for all levels of government and the private sector to foster the development of optimum surface transportation systems. Research areas include: transportation security; planning and policy development; interrelationships among transportation, land use, and the environment; transportation finance; and collaborative labor-management relations. Certified Research Associates conduct the research. Certification requires an advanced degree, generally a PhD, a record of academic publications, and professional references. Research projects culminate in a peer-reviewed publication, available both in hardcopy and on TransWeb, the MTI website (<http://transweb.sjsu.edu>).

Education

The educational goal of the Institute is to provide graduate-level education to students seeking a career in the development and operation of surface transportation programs. MTI, through San José State University, offers an AACSB-accredited Master of Science in Transportation Management and a graduate Certificate in Transportation Management that serve to prepare the nation's transportation managers for the 21st century. The master's degree is the highest conferred by the California State University system. With the active assistance of the California

Department of Transportation, MTI delivers its classes over a state-of-the-art videoconference network throughout the state of California and via webcasting beyond, allowing working transportation professionals to pursue an advanced degree regardless of their location. To meet the needs of employers seeking a diverse workforce, MTI's education program promotes enrollment to under-represented groups.

Information and Technology Transfer

MTI promotes the availability of completed research to professional organizations and journals and works to integrate the research findings into the graduate education program. In addition to publishing the studies, the Institute also sponsors symposia to disseminate research results to transportation professionals and encourages Research Associates to present their findings at conferences. The World in Motion, MTI's quarterly newsletter, covers innovation in the Institute's research and education programs. MTI's extensive collection of transportation-related publications is integrated into San José State University's world-class Martin Luther King, Jr. Library.

DISCLAIMER

The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the information presented herein. This document is disseminated under the sponsorship of the U.S. Department of Transportation, University Transportation Centers Program and the California Department of Transportation, in the interest of information exchange. This report does not necessarily reflect the official views or policies of the U.S. government, State of California, or the Mineta Transportation Institute, who assume no liability for the contents or use thereof. This report does not constitute a standard specification, design standard, or regulation.

REPORT WP 11-01

WELLNESS LESSONS FROM TRANSPORTATION COMPANIES

Asbjorn Osland, PhD
Nanette Clinch, PhD, JD
Lauren Ramsay, PhD
Pamela Wells, MS

September 2011

A publication of

Mineta Transportation Institute

Created by Congress in 1991

College of Business
San José State University
San José, CA 95192-0219

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. CA-MTI-11-1028	2. Government Acession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Wellness Lessons from Transportation Companies		5. Report Date September 2011	
		6. Performing Organization Code	
7. Authors Asbjorn Osland, PhD, Nanette Clinch, PhD, JD, Lauren Ramsay, PhD Pamela Wells, MS		8. Performing Organization Report MTI Report WP 11-01	
9. Performing Organization Name and Address Mineta Transportation Institute College of Business San José State University San José, CA 95192-0219		10. Work Unit No.	
		11. Contract or Grant No. DTRT07-G-0054	
12. Sponsoring Agency Name and Address California Department of Transportation U.S. Department of Transportation Office of Research—MS42 Research & Innovative Technology Admin. P.O. Box 942873 400 Seventh Street, SW Sacramento, CA 94273-0001 Washington, DC 20590		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code	
15. Supplemental Notes			
16. Abstract The purpose of this report is to describe wellness programs and offer two suggestions for improving how they are delivered to commercial drivers and operators. It is not a large sample empirical study from which generalizations can be made. Rather, the Mineta Transportation Institute commissioned brief case studies of transportation companies to show what several organizations have done. Stress, nicotine use, sleep apnea, obesity and lack of information are significant barriers to wellness in commercial drivers/operators. Many wellness programs ask the individual driver/operator to lose weight; exercise more; and monitor blood pressure, glucose, cholesterol and other such indicators of health. However, little is done to change the environment or adopt structural interventions such as forbidding nicotine use, as is possible in 20 states. Other structural interventions include those possible at the levels of the company and community, including access to healthy food rather than the junk food drivers often can find on the road. At the societal level, more public transit that gets people walking and out of their cars, cities designed for people to walk and cycle in rather than drive from work to a sprawling suburb, and encouraging food manufacturers to make healthy food (rather than a toxic mix of sodium, fat and sugar to boost one's craving for a particular food) are just a few measures that could improve the health and well being of the public. The Union Pacific Corporation (rail transportation), and Con-way Freight (trucking) are included because they were willing to share information and are large publicly traded companies. The Utah Transit Authority (UTA) is included because other transit authorities recommended it to the authors, as it has a long history in wellness as part of local government and it too chose to participate. Two issues are discussed: the first is the importance of using the mitigation of erectile dysfunction in the promotion of wellness programs to commercial drivers/operators and the second issue is to urge employers to consider banning tobacco use, both on and off the job, where legal.			
17. Key Words Tobacco, Nicotine, Commercial drivers, Obesity, Wellness, Erectile dysfunction	18. Distribution Statement No restrictions. This document is available to the public through The National Technical Information Service, Springfield, VA 22161		
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 50	22. Price \$15.00

Copyright © 2011
by **Mineta Transportation Institute**
All rights reserved

Library of Congress Catalog Card Number: 2011937107

To order this publication, please contact:

Mineta Transportation Institute
College of Business
San José State University
San José, CA 95192-0219

Tel: (408) 924-7560
Fax: (408) 924-7565
Email: mineta-institute@sjsu.edu
www.transweb.sjsu.edu

ACKNOWLEDGMENTS

The authors thank MTI staff, including Research Director Karen Philbrick, PhD; Director of Communications and Special Projects Donna Maurillo; Student Publications Assistant Sahil Rahimi; Student Research Support Assistant Joey Mercado; Student Graphic Artist JP Flores; and Webmaster Frances Cherman. Additional editorial and publication support was provided by Editorial Associate Robyn Whitlock.

TABLE OF CONTENTS

Executive Summary	1
I. Brief Case Studies	3
Union Pacific	3
Con-way Freight and Wellness Coaches USA	4
The Utah Transit Authority (UTA)	5
II. Health Status of Commercial Drivers	7
Is it Fair to Ban Tobacco Users in the Hiring Process?	7
How Might Employees Respond to a Nicotine Ban in Hiring?	15
III. Implementation of Wellness Programs	17
Do Employers Think Wellness Programs are Appropriate for the Workplace?	17
Conceptual Design of an Organizational Wellness Program	18
Implementing Wellness Programs	20
Promotion of the Wellness Program	22
Evaluation of Wellness Programming	25
Obesity	25
IV. Conclusions	31
Union Pacific	31
Con-way Freight and Wellness Coaches USA	31
The Utah Transit Authority (UTA)	32
Promotion and Implementation of Wellness Programs	32
Endnotes	33
Abbreviations and Acronyms	39
Bibliography	41
About the Authors	47
Peer Review	49

LIST OF TABLES

1. Percent of Adults who Smoke by Race/Ethnicity in the US, 2008 ¹³	9
2. Relationship of Increasing Costs to Increasing BMI	18
3. Prevalence* of Obesity† Among Adults, by Black/White Race or Hispanic Ethnicity, Census Region,§ and Sex --- Behavioral Risk Factor Surveillance System Surveys, United States, 2006–2008	27

EXECUTIVE SUMMARY

Brief case studies of transportation companies are included to provide examples of how wellness programs are conducted in three different transportation organizations, two commercial and one public. These case studies set the context for our discussion of wellness, with particular attention to not hiring tobacco users (for example, Union Pacific) and the lack of reference to erectile dysfunction mitigation, no doubt an important promotional tool for chubby middle-aged male drivers. Wellness programs are popular because employers hope they can help control health care costs. Wellness programs empower employees to improve their health by controlling their weight through diet and exercise, eliminating tobacco use, stress management and general health risk mitigation. The latter category can include increasing awareness about dangerous practices associated with extreme sports, motorcycle use, irresponsible gun use, and many more specific behaviors. Doctors treat the consequences of poor health by prescribing medication for assorted ailments (for example, high cholesterol, blood pressure, adult onset diabetes, and a host of other illnesses) that can be eliminated or better controlled through diet and exercise leading to weight loss. Wellness programs are independent of health insurance because confidentiality is critical; employees need to trust their wellness coaches to be able to honestly confront the challenges they face.

Two issues are discussed that we believe are added value in that they have not been emphasized in other discussions of commercial drivers and operators: the first is the importance of using the mitigation of erectile dysfunction in the promotion of wellness programs to commercial drivers and operators—drivers would likely find it more compelling rather than the fear of disease down the road; and the second is we urge employers to consider banning tobacco use, both on and off the job, where legal. Tobacco use is a serious health problem and within the individual's control. Eliminating tobacco users as employees would improve wellness in a marked manner.

I. BRIEF CASE STUDIES

Three cases studies are presented. The specific companies chosen were those that were willing to participate and had interesting information to provide.

UNION PACIFIC

Union Pacific began its health promotion program in 1987. Like other wellness programs the goals were to foster a corporate culture conducive to healthy lifestyles (for example, smoking cessation, alcohol awareness, weight management through healthy eating, regular exercise, and health screening for cholesterol, blood pressure, glucose and other problems) and to minimize health risks to reduce the ever escalating health costs. The company called the program HealthTrack. One early innovation involved putting exercise equipment in box cars so that the highly mobile railroad employees could access equipment. The corporation's 35,000 users now have access to more than 575 facilities.

HealthTrack has an educational emphasis to provide users with information related to wellness. The programs covered are data driven and based on research findings. The company emphasizes its long-term commitment to users' health. The company operates pilot projects to see what works before diffusing a given program to the entire company. The company collaborates with other corporations, organizations and universities devoted to wellness in program enhancement and assessment.

Users attend health fairs and after they get their biometric feedback (that is, glucose, cholesterol and blood pressure) they begin the program with a health risk assessment. Twenty percent of the corporation's employees have completed the assessment. Confidentiality was assured.

Occupational health nurses support users through wellness programming, assist in the prevention of injuries, and respond to injuries and illness when they appear. The strong relationships of the nurses to users were pivotal to the program's success. Nurses encourage and support users in their wellness activities and enhance communication. They are employees of the railroad representing the corporation's employee health and safety program in addition to wellness. Because they are employees, they are part of the culture and plugged into the organizational communication of the organization as opposed to an outside contractor that may not be as attuned to the organization.

A critical metric is return on investment. The company sees its annual expenditure of more than \$3 million as money well-spent. HealthTrack has won numerous awards thereby recognizing its impact and effectiveness in the perception of external assessors.

The long-term success of any intervention depends on senior management support. Given the program's success in promoting wellness and encouraging safety, the support has been ongoing. There is always the risk of programs being fads, but that has not been true of HealthTrack, which is clearly part of the railroad's business strategy.

CON-WAY FREIGHT AND WELLNESS COACHES USA

With Wellness Coaches USA (WCUSA) serving as its wellness provider, Con-way Freight (CF) offers wellness to more than 8,000 employees at 78 facilities in 23 states. WCUSA is a national leader in onsite wellness coaching supplemented by online coaching communication and telephonic contact. Effective coaching builds on trust between the employees and the coach. Sometimes employees worry that information might be shared with others, or some start with an assumption that management is simply furthering its own agenda. Trust builds along the way through effective engagement where the coach shows interest in on site face-to-face contact and then uses effective techniques so that the employee can see results.

The wellness program generated quick results with a reduction in workplace injuries and related worker's compensation costs of 80 percent, and a corresponding reduction of lost work days of 75 percent. Specific results follow: average weight loss per participating employee of 11.1 pounds (20,921 lbs./1,890 employees), smoking cessation for over 201 participants, and 1,810 reduced blood pressure, enough to no longer be hypertensive. Participation was very high—greater than 95 percent of CF's employees had health risk assessments followed by over 92 percent of employees regularly (that is, at least six times annually) meeting with coaches to assess progress. Competitions build excitement complemented by incentives to increase employee participation. For example, CF recently held a 10-week weight loss competition where participating employees were to weigh in periodically with store gifts certificates (\$25, \$50 & \$100) awarded to winners.

Unlike Union Pacific that relied heavily on occupational health nurses, CF contracted with WCUSA. As in other wellness programs, the program begins with biometric testing of key indicators and health risk assessments. Participants can then choose one-on-one health-risk coaching. Coaches also develop programs with general appeal to participants focused on wellness basics such as exercise (for example, walking), weight loss, and smoking cessation contests. Information was communicated in health fairs and informational displays as well as in coaching. Stretching is also emphasized at Con-way to reduce injuries common to freight companies.

WCUSA, in its general assessment that includes all customers not just Con-way, reportedly averaged 12.5 one-on-one coaching interactions per engaged employee (EE) during 2009. It reported 43,150 health risk improvements for the 45,700 EEs, with the bulk of these being reduced blood pressure (19,300), weight loss (14,800) and increased exercise (6,500). Cessation of tobacco use was the lowest category with 1,300 EEs. Reduced stress was comparable with 1,350 EEs.

WCUSA reported significant results from its customers. For example, the City of Las Vegas had flat group healthcare costs for the last five years. One WCUSA customer, a major transportation company, registered a 30.5% decline in workers' comp costs in 12 months.

THE UTAH TRANSIT AUTHORITY (UTA)

UTA has been a leader in wellness programs for over a quarter century. UTA started its program in 1984. Managers had become concerned about rising health care costs.² UTA banned smoking, offered bonuses or incentives for healthy practices (for example, quitting smoking, losing weight, and exercise) and medical-benefits rebates for good health. It tried to foster an environment of wellness by providing in-house fitness centers. Now it lists its Wellness program as a standard benefit for both administrative and bargaining unit (that is, unionized) employees. The program is described as follows:³

Wellness Program: Your good health is important to UTA. UTA offers an extensive health and wellness program, called PACE – Participation, Activity, Commitment, and Evaluation. Employees can earn up to \$250 a year participating in a variety of health and wellness activities offered through the PACE program. The money earned by participating in the PACE program is placed in a Health Reimbursement Account and is then available to reimburse you should you incur health related expenses that qualify under Section 125 of the Internal Revenue Code. You begin by completing a Health Risk Appraisal, and earn your first \$50. Once a year, free health testing is offered. ... You are also encouraged to participate in the various health and wellness activities offered throughout the year and continue to earn bonus money for your health reimbursement account. Physical fitness facilities are available at all UTA divisions. These facilities include exercise equipment that you and your spouse may use at no cost.”

When designing the wellness initiative, UTA relied on national statistics that indicated that most employees were at risk for cardiovascular disease due to cigarette smoking and/or high blood pressure and/or cholesterol. It reinforced employees with insurance premium waivers and cash. UTA extended the benefit to insured spouses. Wellness participants began with a fitness evaluation, which was repeated annually. The evaluation covered the basic indicators such as blood chemistry, body fat, smoking cessation and cardiovascular fitness. If the participants met the threshold score they were eligible for immediate reinforcement through the incentive. If not, they worked toward improvement and possible subsequent reinforcement. UTA’s approach also built community through team sports. It also provided discounted tickets for assorted family activities to promote healthier families.

The program includes financial incentives. Employees can earn up to \$250 a year participating in the PACE program described below. The funds are credited to the employee’s Health Reimbursement Account. One begins by completing a Health Risk Appraisal, for which one is paid a \$50 incentive. After that one can earn additional incentives by participating in various health and wellness activities offered throughout the year (for example, Annual Fitness Appraisal, Disease Management Programs, Healthy Behavior, and Physical Activities).

Comments follow from Raylene Thueson, owner of RST and Associates, LLC, the wellness contractor used by UTA. Smoking cessation and weight management are two of the more difficult problems. When asked how UTA confronted these sometimes intractable problems, Raylene stated,

The 3 month disease management program we recommend they participate in goes a long way to helping them change their behaviors and at some point we have to rely on personal will power and determination. The assessments identify trouble areas and then people are directed to the appropriate disease management program. Each 3 months they are in the program they receive another \$25 deposit.

At some point in every obese person's life their health becomes a big issue, whether it is diabetes, hypertension, joint problems, back problems, high cholesterol, cardiovascular disease and on and on and on. The remedy for every one of these problems begins and sometimes ends with weight loss. All of our bargaining unit employees must submit to a DOT physical every two years and if their health is an issue they will be taken out of service. UTA does not charge a higher premium for insurance because of tobacco use or obesity. However, some companies are starting to give higher premium rates to the obese population as well as the tobacco users – money talks in many cases, especially extra money out of your pocket.”

When asked to comment on how she established trust with unionized personnel, Raylene stated,

Bus operators cannot or should not drive if they have a blood pressure of 140/90, out of range glucose, etc. Because our staff does onsite blood pressure clinics, glucose checks, etc., they fear we might report them. What they don't understand are that HIPAA laws preventing us from doing so. What we do when we discover out of range numbers we tell them to go to the doctor by a certain date and report back to us. If they didn't do that (and we've never had anyone not go to the doctor), then we would have to discuss a course of action.”

II. HEALTH STATUS OF COMMERCIAL DRIVERS

Though the present report dealt with three case studies, the topic of wellness is important to all, but perhaps especially to commercial drivers and operators because of the health problems they face. The Transportation Research Board hosted an International Conference on Commercial Driver Health and Wellness (2010) to focus on wellness and health problems of drivers. A series of presenters described a long list of occupational health problems confronting commercial drivers. Dr. Eric Wood of the University of Utah, “reported that his study of mainly long-haul drivers found that half smoke tobacco, 28 percent suffer from hypertension (high blood pressure) compared to 17 percent of manufacturing workers, 25 percent had high cholesterol (compared to 16 percent), 10 percent had diabetes mellitus (compared to 5 percent) and almost 15 percent had sleep apnea. Only 58 percent are covered by health insurance.” Another presenter, Lawrence Cheskin, a professor at Johns Hopkins University, “reported that 55 percent of truck drivers are obese with a body mass index of 30 or higher, compared to 33 percent of U.S. men.” Commercial drivers suffer poor health due to the nature of the job involving large amounts of time driving away from home in an environment where it is difficult to exercise, sleep well, eat right, and drivers are also subjected to the stress of operating a large vehicle on the highways and in congested areas for loading and unloading.

IS IT FAIR TO BAN TOBACCO USERS IN THE HIRING PROCESS?

We now move to one of the more contentious recommendations, ban tobacco users where possible. We realize that few employers of commercial operators and drivers ban tobacco users, but Union Pacific and Alaska Airlines have done so for years in states where it is permissible.

Smoking cessation can be extremely difficult and some find it impossible. The incidence of smoking varies with education, income and ethnicity. For example, poor people, the less educated and ethnic minorities smoke more than do affluent white or Asian professionals. If one smoked for 30 years and quit one could be hired, but the young person that enjoys a cigarette several times a month while with friends at a club cannot. Are tobacco use bans in the hiring process fair? Is it right that a prospective employer intrude on one’s personal legal behavior outside of work?

The media focused on Weyco, which in 2005 refused to hire tobacco users and fired those that did not quit.⁴ The Scotts Company, LLC and EG Systems, Inc. followed Weyco’s lead. Now there appears to be a movement in hospitals with a growing list that refuse to hire people that use tobacco including the following: Akron Children’s Hospital, Akron General Medical Center, Cleveland Clinic Foundation, MedCentral Health System, Parma Community General Hospital, and Summa Health System,⁵ all in Ohio; Memorial Health Care System of Tennessee;⁶ Susquehanna Health System of Pennsylvania;⁷ and Gwinnett Medical Center of Georgia.⁸ The primary motivation behind tobacco use bans is economic. Most people are aware of the disastrous consequences of cigarette smoking. Approximately 400,000 deaths result annually due to smoking in the US. The annual direct costs are in excess of \$298 billion. Each pack of cigarettes costs society \$18.05 in medical costs and lost productivity.⁹

The concern for employee health is laudatory, but 20.6% of American adults smoke and could not work for employers that prohibit tobacco use. Only 5.6% of people with advanced degrees smoke while approximately 31.1% of poor people smoke (CDC, 2010), so the adverse impact of a ban on tobacco use is likely to hit a greater percentage of poor, uneducated people.

Twenty states, including Ohio, allow employers to refuse to hire tobacco users. In Ohio, Representative Stephen Dyer introduced House Bill 470 that would prohibit employers from refusing to hire smokers.¹⁰

There are also the individual differences in smoking behavior, such as young people that smoke rarely while having a few beers with friends versus reformed older people that smoked for decades but have stopped. How can one implement such a policy and be fair? If it is illegal in so many states, is a restrictive policy on personal behavior ethical?

The following is a list of questions that employers might consider when considering a tobacco use or smoking ban:

WHAT OUTCOMES CAN OCCUR WHEN EMPLOYERS BEGIN IMPLEMENTING RESTRICTIONS ON PERSONAL BEHAVIORS, ESPECIALLY AS THEY OCCUR OUTSIDE THE WORKPLACE?

Even though the spirit behind implementing restrictions on smokers is for the good health and well being of the smoker,¹¹ employers run the risk of costly litigation and bad publicity when implementing restrictive policies on matters of personal choice. Many states have decided that employers do not have the right to dismiss employees from smoking outside of the workplace. Although firing a smoker may not be deemed “wrongful termination” with respect to the violation of civil rights, invasion of privacy may be an issue, as well as violations related to the Health Insurance Portability and Accountability Act (HIPAA), an amendment to the Employee Retirement Income Security Act (ERISA) put into place in 1974 to protect employees from employer fiduciary irresponsibility.¹² HIPAA protects individuals who may be considered a high health risk from being denied health coverage, hence protecting them from discrimination. Employers need to exercise caution to avoid discriminatory practices. At present, adverse impact is hypothetical in terms of tobacco use bans in hiring as no law suits have been brought to our knowledge.

HOW DO EMPLOYEES STAND TO GAIN OR LOSE FROM AN EMPLOYER’S BAN ON HIRING TOBACCO USERS?

Employees stand to gain an advantage from an employer restrictive non-tobacco user policy in that those who abstain from tobacco use reap the benefits of better health and live a longer life. In addition, employees who stop using tobacco may enjoy monetary rewards in the form of cash incentives and reduced healthcare copayments and premiums. Finally, employees that abstain save time and personal discomfort by decreasing the amount of time spent having to see doctors for tobacco related illnesses.

On the other hand, such restrictive employer practices can put disadvantaged employees at more of a disadvantage. For example, cigarette smoking is most prevalent in less educated people. In addition, African-Americans, a historically underrepresented group in the workforce, smoke more than do whites or Hispanics with American Indian/Alaska Native being the group with the highest level:

Table 1. Percent of Adults Who Smoke by Race/Ethnicity in the US, 2008.¹³

United States	Percent
White	18.7%
Black	20.6%
Hispanic	15.6%
Asian/Pacific Islander	9.8%
American Indian/Alaska Native	31.6%
Other/Multi-racial	22.6%

HOW MIGHT A NO-SMOKING POLICY VIOLATE THE AMERICANS WITH DISABILITIES ACT (ADA)?

The tobacco users who believe they have a fundamental right to use tobacco or who see themselves as unfairly deprived of rights provided to non-users, thus implicating equal protection claims, have no clear chance of success in the courts.¹⁴ When Rodrigues sued Scotts Company, the two counts in the complaint were dismissed: violation of rights under the Massachusetts Civil Rights Act and wrongful termination.¹⁵ The court later ruled in favor of Scotts Company on a summary judgment motion that dismissed the remaining counts (violation of privacy and violation of ERISA) in *Rodrigues v. E.G. Systems, Inc.* (2009).¹⁶

Tobacco users who use off-duty do not present a perceived risk of potential unsafe behavior (not even the risk of setting fire to an office). Nicotine gum or nicotine patches make smoking cessation appear more feasible than alcoholism (requiring the will to abstain completely); this has supported court decisions to reject the argument that smoking is a disability.¹⁷

WHAT ARE THE ETHICAL CONSIDERATIONS IN ADOPTING A POLICY WHERE EMPLOYERS REFUSE TO HIRE TOBACCO USERS?

Health is an internal good enjoyed by the individual and no amount of external goods, such as compensatory or punitive damages in a “successful” lawsuit, can make up for the serious lack of health. Utilitarianism, a commonly discussed ethical framework, seeking to maximize the greatest good, delivers through tobacco-use bans in hiring an incentive to quit and rewards: improved attention to multiple aspects of one’s health, increasing numbers of people who are non-users, and for individual participants in health plans, monetary benefits. Consequentialism, another framework worthy of mention, interested in effectiveness, would celebrate the positive statistics that show these programs discourage

an unhealthy habit while restraining employer costs for healthcare, which benefits all employees and the marketplace by allocating resources toward profits and improvement of goods and even working conditions.

Kant and Aristotle, however, might not agree. Kant, who valued duties that respond to the needs and dignity of all humans and never treating humans as a means to a greater good, might pause when considering whether such programs are really fair. The tobacco users who are not well-educated, have grown up smoking around smokers or using tobacco around users, work at low-skill or manual labor jobs, and need health insurance, have doors quickly shut as they are handed a note stating, 'Come back when you quit.' Yet these are the very individuals whose only chance of quitting might be to work in a community of former smokers or former users who did quit and to be exposed to wellness programs or smoking cessation programs offering reasonable ways to kick the habit.

Aristotle, too, with a focus on a deliberative life that incorporates the virtue of justice rather than streamlined effectiveness,¹⁸ might question whether a non-smoking policy or a ban on tobacco use that forbids hiring is even rational. If the goal is to improve health, then surely a policy that hired smokers or users and gave them a year to quit (or face termination) while on the job would be far more effective, yet only if health is really the underlying goal, thereby displaying Aristotelian virtues of patience, temperance, and compassion, not clearly evident in a bar-the-doors smoking or tobacco use policy.

Instead of asking whether it is fair for an employer to require non-smoking or non-use, the question might be who is the better employer? The one who tolerates habits that lead to ill health or the one who seeks to improve employee wellness? The interest in employee health, if not solely driven by costs, is rationally related to employee safety, and thus not far removed from the well-known common law requirement that any principal must provide safe working conditions for his or her agent.

The benefits of being hearty, hale, and fit are pronounced at the Scotts Company, which offers a huge gym, on-site health professionals, and a cut in premiums for those who sign up for a personalized program involving individual analysis, coaching and care:

Those [employees] who balk pay \$40 a month more in premiums. Using data-mining software, Whole Health analysts scour the physical, mental, and family health histories of nearly every employee and cross-reference that information with insurance-claims data. Health coaches identify which employees are at moderate to high risk. All of them are assigned a health coach who draws up an action plan. Those who do not comply pay \$67 a month on top of the \$40. "We tried carrots," says Benefits Chief Pam Kuryla. "Carrots didn't work".¹⁹

Although the Scotts Company was sued for refusing to employ Rodrigues after the nicotine test results, at least one other employee, Joe Pellegrini, who at first resisted Scotts' rigorous insistence on employee health, may have been saved by the company's program:

His profile—athletic, high body-mass index, and bad cholesterol (brought on by a love of 28-ounce sirloins)—triggered an alarm. Eventually, Pellegrini succumbed to the company-

applied pressure and agreed to abide by his health coach's action plan, which included an immediate visit to his doctor. A few weeks later, a specialist studying Pellegrini's angiogram spotted the heart valve of what should have been a dead man. Within hours, two stents were installed. The surgeons later told him the 95% blockage would have killed him within five days.²⁰

Yet the benefits experienced by this employee are beyond the reach of Rodrigues: his conditional employment was terminated, resulting in no access to health analysis and mentoring. One argument is that Rodrigues was an employee, regardless of the Scotts Company conditioning employment on non-smoking, and as an employee, Rodrigues would be protected by ERISA that safeguards against denial of access to health coverage provided to all employees.²¹

The strength of that argument has yet to be demonstrated in the courts. The court in *Rodrigues v. E.G. Systems, Inc.* (2009) found that Rodrigues was not protected under ERISA: "A person such as Rodrigues, who has only a contingent offer of employment, does not have an expectation of benefits under the potential employer's ERISA plan that [Section 510](#) protects."²²

Company no-smoking policies focused on quitting become around-the-clock mandates. Rigid policies offer apparent fairness in that all are treated the same. Rigid policies make it likely as well that there will be unfair applications in the sense that particular circumstances of policy breaches could never be considered. Indeed, the problem with policies is that they have to usually be applied without exceptions, to avoid objection. If the Vice-President smokes a cigar at his daughter's wedding, is that the end of his career? In the Scotts case, Rodrigues was a landscaper. Had a new Chief Financial Officer been offered and just accepted a position, after thousands of dollars spent on an executive search, would the return of the same nicotine test results a week later have resulted in the same dismissal, with another email announcement praising the banishment of yet another smoker?

Pressure to impress an employer could also lead to unhealthy practices. Obese employees, trying to lose weight, might resort to risky methods such as medications or even surgery instead of the tried and proven diet and exercise.²³ Smoking cessation often results in weight gain and increased use of stimulants such as coffee. In some instances, smoking may have been taken up to assist with recovery from alcohol or drug abuse. In such cases, a no-tolerance policy could pressure an individual back into the abyss.

HOW PROTECTED ARE SMOKERS BY STATE STATUTES?

There are many state statutes that prohibit employers from discriminating against any legal behavior: consumption of alcohol, gambling, participation in high-risk sports or smoking. Some of these laws were enacted in the early 1990s. According to Valteau (2007) the ACLU and the tobacco lobby collaborated to propose more than 24 state laws to prohibit employers from restricting employees' legal indulgences while off work.²⁴ Furthermore, Henderson (2009) maintains that smokers are more likely to object to dismissal than to not being hired.²⁵

Employers could focus on relating non-smoking to rational job requirements. Employees might even argue no legitimate business purpose exists.²⁶ Would it be fair for an employer to prefer non-smokers in an effort to avoid customer discomfort? In positions requiring close contact with patients, smoking at lunch (off-duty or in the car on the way to work) could leave disagreeable odors on clothing that could be harmful to some patients.

TO WHAT EXTENT COULD SMOKERS CLAIM A POLICY INVADES PRIVACY OR THREATENS IDENTITY?

Personal identity is threatened when increasing information about a person's life is relentlessly subjected to the unwanted scrutiny and judgment of others. There is voiced concern that employer efforts to control off-duty activities can discriminate against unhealthy individuals²⁷ and that such programs might invade privacy and lifestyle.²⁸ Lifestyle discrimination could lead to even greater control over individual behavior away from work. Sugarman lists examples:²⁹ employees must wear seat belts, cannot purchase a competitor's goods, and should avoid junk food. People to some extent have to be free, even to make bad decisions, to learn from mistakes.

Privacy can be viewed from one perspective as the right and human need to nurture one's own being and becoming, without having to account, constantly, to others. For centuries, under the common law, people have been entitled to a reasonable expectation of privacy. Inside a home, there is an expectation that no one is leaning against the door listening in or using hidden technology to take photographs. What people do when they are in public reduces the reasonable expectation of privacy. Thus, it may be legal for others to take photographs of a crowd on the street, listen to another's cell phone conversation while in line at the store, or write about observed conduct of people in a library or a bar. It is certainly legal for the state to prohibit smoking in public places given the dangers of second-hand smoke. The more private the place, the more personal freedom might be expected to reign.

One example where health policies can threaten personal privacy is with employee drug testing and other forms of bodily fluid extractions. Demanding bodily fluids, even when conditioned on consent, could constitute a serious invasion of privacy. Even though urine, unlike blood, must be evacuated on a regular basis, there is a degree of embarrassment because the activity required is normally one that is absolutely protected: installing cameras in bathrooms would invite a lawsuit. A company agent would also be charged with overseeing the process nearby, "the visual or aural monitoring of the urine sample,"³⁰ and taking charge of the cup of evidence. No one looks forward to giving such a sample.

Courts have recognized the seriousness of these invasions in the context of criminal law, where the government is constrained by the Fourth Amendment protections against unreasonable searches and seizures. Reasonableness of the search permits, however, the taking of blood samples, fingerprints, breathalyzer tests, and urine, as well as samples used for DNA testing. In the private sector, the legality of drug testing is highly dependent on consent and the reasonableness of the request, and the requests normally focus on illegal drug use.

Nicotine testing as a shortcut to the truth becomes troubling given that nature of the invasion and the fact that nicotine is not illegal. Far more is at stake when illegal drugs are used: employees could be harmed and a company, responsible for its agents in many ways, could be held responsible, even viewed as condoning the use of illegal drugs.

Some states, such as California, might prove highly protective of privacy. Courts in such states might demand employers demonstrate a compelling interest in urine tests for nicotine or disallow such tests altogether. Chadwick (2006) describes the evolution in California of the compelling interest test for employers testing urine, using polygraphs, or otherwise infringing on privacy interests. Employers have been able to engage in the testing for illegal drugs as long as this is done with the potential employee's consent and for all applicants. This does not mean that tests for legal drugs would be equally valid.³¹

Although the court in *Rodrigues v. E.G. Systems* (2009) ultimately found no invasion of privacy in the Scotts Company policy, it should be noted that while the plaintiff raised a privacy challenge, the plaintiff did not, as part of that claim, challenge the urine test.³²

In addition to the intrusion upon bodily privacy when the sample is retrieved, privacy interests in personal information that could be gleaned from the sample are also considerable. Urine can reveal extensive information that one might hope to remain private, including pregnancy (*McDonell v. Hunter*, 1985).³³ Consent to a urine test as a pre-employment requirement therefore requires the individual to trust that the testing will be limited to nicotine, and not other physical conditions. Pierotti, in the course of disputing the value of no-tobacco policies, observes that in *Miami v. Kurtz* (1995) the Supreme Court of Florida held that it was not a privacy violation to prohibit the use of tobacco, but Justice Kogan, in his dissent, warned that employer inquiry into off-duty private legal behavior could cross the line and become a pretext for a constitutional infringement.³⁴ He referenced earlier practices of questioning women about their procreation plans. He further spoke of possible violations should employers focus on potential diseases.

The purpose of the nicotine test is to identify those addicted to nicotine. The casual smoker would be able to resist smoking two weeks before the test. The casual smoker in a no-smoking off-duty workplace, therefore, would be comparable to the casual drinker in a no-alcohol off-duty workplace, though no-alcohol off-duty policies are very rare.³⁵ Unlike smoking, alcohol in moderation is not socially shunned. It is clearly permissible for most employees to drink alcohol at home so long as job performance is not impacted.

Smoking is publicly shunned in all segments of society aside from a collection of smokers. Public disapproval of smoking is so entrenched it is easy to forget that alcoholism has historically been the greater vice, leading to a federal ban under Prohibition. Even smoking at home has become a contestable right in public housing.³⁶

Brody and McKinney (2007), analyzing different no-smoking policies ranging from voluntary to intolerant, conclude that most ethical approach is that of a company that offers a voluntary quit-smoking program.³⁷

DOES A TOBACCO USE BAN DISCRIMINATE AGAINST MEMBERS OF PROTECTED CLASSES?

Equal employment opportunity laws provide protections against discrimination for members of certain classes. For example, Title VII of the Civil Rights Act of 1964 prohibits discrimination based on race, color, religion, national origin, and sex. It is illegal to discriminate in several aspects of employment, including, but not limited to:

- hiring and firing
- compensation, assignment, or classification of employees
- fringe benefits

Claims of discrimination in staffing require proof. One path that may be followed to demonstrate discrimination is *Disparate Treatment*, where it is claimed that the employer knowingly and intentionally discriminated against people based on the protected group membership. The second path that may be followed to demonstrate discrimination is *Disparate Impact* (also known as *Adverse Impact*).

If employers implement restrictive practices that fire (or will not hire) smokers, discrimination against protected class members might occur.³⁸ Disparate impact focuses on the effect of employment practices, rather than the underlying intent. The organization may not have intended to discriminate against protected class members, but the outcome of one of their practices could result in adverse impact, and that may be inappropriately discriminatory. That is, as a result of a protected characteristic, people are adversely affected by an employment practice.

One means of demonstrating adverse impact involves showing evidence through the use of statistics. By looking at applicant flow statistics and considering whether there is a significant difference in selection rates between protected groups, you could identify what appears to be a problematic practice because of its effect, rather than its intent.

The *four-fifths rule* is used as a guide to evaluate whether an employment practice has disparate impact. There appears to be disparate impact if the hiring rate for the minority group is less than four-fifths (or 80%) of the hiring rate for the majority group.

If there is evidence of adverse impact for protected classes, to successfully rebut charges of discrimination, the organization will need to show that the practice is job related for the position in question and consistent with business necessity.

By looking at the rates of smoking in the community across protected classes, you would be able to ascertain whether too large a proportion of protected class member job applicants would get rejected. How large a proportion is too large? You would use the four-fifths rule.

Step 1) Calculate the probable selection ratio for whites (assuming all whites are qualified for an entry-level position unless they smoke): 81%

Step 2) Calculate the probable selection ratio for African Americans, for example (assuming all African Americans are qualified for an entry-level position unless they smoke): 76%

Step 3) Is the selection rate for African Americans at least four-fifths of the rate for whites?

Four fifths of 81% = 65%—so at least 65% of African Americans should be being selected. If the selection ratio for African Americans is lower than 65%, there is evidence of adverse impact for African Americans. However, here it is 76%, which is higher than 65%, so this could not be the basis of a claim of equal employment opportunity discrimination.

CAN THE EMPLOYERS REFUSING TO HIRE SMOKERS DEFEND THEIR PRACTICE IF A CLAIM OF DISCRIMINATION IS MADE BASED ON ADVERSE IMPACT?

To defend against a claim of discrimination based on adverse impact, the employer would need to show that the practice is job related for the position in question and consistent with business necessity. In a health setting residual tobacco on workers' clothing can be dangerous to susceptible patients, but the argument would be tenuous in a transportation setting where public riders could certainly include smokers.

HOW MIGHT EMPLOYEES RESPOND TO A NICOTINE BAN IN HIRING?

We do not know how employees will respond to tobacco use bans, but we have used the Weyco case with adult students. We share this information so that companies and organizations can prepare for some of the arguments commonly made by adults when confronted with tobacco use bans. We have found that students most often view corporate anti-smoking policies as a personal freedom and individual rights issue. To that point, there is a tendency for students to form in-groups and out-groups of smokers vs. non-smokers. Non-smokers will often talk about their personal rights to have a smoke free, healthy environment. Non-smokers will discuss how cigarette smoke and odor makes them feel ill, they have allergies to smoke, the smoke residue settles onto their clothes and they cannot get away from the odor, and the well-documented, harmful effect of secondhand smoke. Smokers, on the other hand, get vilified as selfish and uncaring with respect to how secondhand smoke affects others. Additionally, non-smokers are insensitive to the fact that smoking is not an easy addiction to shake. The attitude becomes, "quit smoking or get another job. It is all a personal choice." Smokers become embarrassed, tend to hold back from the discussion and are perceived as "bad people" subjecting others to their "personal bad choices." The discussion can create interpersonal conflict or cause divisiveness amongst participants. This can be a problem in training where the organization may also be teaching how to create effective teams, minimize group dysfunction, and motivate others.

Along the line of personal freedoms and rights, students most often will interpret an anti-smoking organizational policy as the employer overstepping boundaries. The point of creating a healthy work environment is often missed, and the goal of saving others' lives almost never enters into the conversation. Instead students feel that a smoking ban at work might make sense, but extending it beyond the workplace is an infringement on personal freedom. The former logic misses the point on why the anti-smoking policy was

enacted, with only avid non-smokers committed simply because they do not want to breathe secondhand smoke.

Finally, when taught within an ethical framework or a framework of moral reasoning, more often than not, students who do not smoke state that they would not mind working for a company that has adopted an anti-smoking policy, based solely on the reason that the policy does not apply to them as non-smokers. This reasoning can be found even among students who feel that the anti-smoking policy is an infringement on personal freedom/choice and is discriminatory. Instructors must exercise diplomacy when pointing out the discrepancy in this particular line of moral reasoning so as not to come across as condemning or judgmental.

III. IMPLEMENTATION OF WELLNESS PROGRAMS

Wellness has become a popular topic because of the promise it holds to reduce health care costs and improve the well being of employees. Online resources abound as do consulting companies. We will present the wellness material in the following order:

1. Employers think wellness programs are appropriate for the workplace. We present some data and the logic behind the popularity of wellness programs.
2. Conceptual design of an organizational wellness program is presented next simply to explain what is entailed in wellness programming.
3. Promotion of the wellness program is discussed because we see it as complex. Different ethnic groups view weight differently; Blacks, Hispanics, Native Americans and Polynesians seem more accepting of large people than educated Chinese, Japanese and Caucasians.
4. Evaluation of wellness programming is critical since organizations want to see a return on their investments in wellness programming.

DO EMPLOYERS THINK WELLNESS PROGRAMS ARE APPROPRIATE FOR THE WORKPLACE?

Employers are concerned about health care costs. Wellness programs are one tool in the battle against escalating health care costs. Thirty-three transit agencies were surveyed and the 14 respondents indicated that they offered programs to enhance employee wellness.³⁹ Wellness programs focus on more issues than obesity and tobacco use, but those are two prominent factors. The National Opinion Research Center (NORC) based at the University of Chicago, along with the George Washington University School of Public Health and Health Services conducted a survey and found that many employees and employers are of the opinion that weight management programs in the workplace are appropriate and effective.⁴⁰ Employers generally thought wellness programs lowered obesity. A caveat is that this was an opinion poll rather than objective research about the efficacy of programs. The NORC opinion poll found that employers and employees view positive financial incentives favorably. However, the support amongst employers asking that obese employees pay higher premiums was not strong: only 7% strongly agreed and 18% somewhat agreed that “obese employees should pay a larger share of premiums.” The employers generally thought that firms should offer discounts/incentives for participation in obesity programs. Employers strongly opposed penalties in wellness programs; only 6% of employees surveyed supported higher premiums for employees that declined to participate. The NORC study concluded, “We need to recognize that our approaches to overweight and obesity may begin but must not end with personal responsibility. Few diseases require a more holistic approach”⁴¹ The medical costs climb dramatically with the level of obesity, as do the costs associated with absenteeism. They are greater for women than men. The following table shows the increasing costs:⁴²

Table 2. Relationship of Increasing Costs to Increasing BMI

	BMI 25-29.9	BMI 30-34.9	BMI 35-39.9	BMI \geq 40
Men – Medical Expenditures	\$169	\$392	\$569	\$1,591
Men – Absenteeism	\$6	\$70	\$643	\$436
Men – Total	\$175	\$462	\$1,212	\$2,027
Women – Medical Expenditures	\$495	\$1,071	\$1,549	\$1,359
Women – Absenteeism	\$93	\$302	\$936	\$805
Women – Total	\$588	\$1,372	\$2,485	\$2,164*

**The general trend is BMI and increasing costs even though costs inexplicably drop here.*

A recent analysis reported that “per capita medical spending for the obese is \$1,429 higher per year, or roughly 42 percent higher, than for someone of normal weight. ... the annual medical burden of obesity has increased from 6.5 percent to 9.1 percent of annual medical spending” from 1998-2006.⁴³

CONCEPTUAL DESIGN OF AN ORGANIZATIONAL WELLNESS PROGRAM

The following discussion is pertinent to all organizational wellness efforts, but some have to be tailor made to accommodate the unique circumstances of various employers. For example, Union Pacific offered mobile units since the employees moved around the country. Contacting truckers can be problematic since they too are mobile, but wellness programs offer electronic coaching and phone contact.

A wellness model is an approach organizations use to: 1) to reduce the demand and subsequent cost of healthcare and 2) to promote a healthier and more productive workforce at both the group and the personal level so that people feel a connection to the program. When implementing a wellness program, an organization typically utilizes a health risk assessment tool to measure lifestyle choices and behaviors that have the potential to impede wellness. Health risk assessment can include physical examinations that measure body mass index (BMI—a measurement reflecting height and weight), blood pressure and cholesterol, as well as questions relating to one’s personal habits like how much alcohol one consumes in a given week, use of tobacco products, how often and how far one drives, the type of vehicle used, exercise behaviors, and participation in dangerous activities. The controversy that arises, however, is what constitutes an unhealthy worker? For example, obesity, a well-documented contributing factor of many diseases,⁴⁴ is not necessarily a reliable measurement of an unproductive employee. Many overweight or obese people are productive workers. In addition, when wellness models single out certain groups, such as obese Black or Hispanic women, stereotypes could become problematic, so managers must be careful to address wellness issues sensitively for specific groups. Caucasian or

Asian observers may perceive the obesity of Black or Hispanic women as figural whereas they might see themselves as normal or even desirable within their cultures.

A variety of guides to establishing wellness programs are available on the Internet. Leading health organizations such as the Centers for Disease Control and Prevention, the Cleveland Clinic and the Mayo Clinic provide wellness resources. There are a host of other commercial resources as well to be found online. The following guide is based on that provided in www.wellnessproposals.com, which in turn was based on Healthy Workforce 2010:

The first step is to identify the problem, which is essentially combating behaviors that lead to poor health or risks to health. These behaviors include tobacco use, poor diet and physical inactivity leading to obesity, and other risks such as participation in extreme sports, gun ownership, and motorcycle riding.⁴⁵

Then one needs to create a planning committee that includes a cross section of employees from different areas with needed competencies in budgeting, purchasing, HR, senior management, union leaders, and so forth.

A needs and interests assessment should be done to determine the degree of interest for wellness, desired activities, organizational changes needed to address wellness issues, what mix of communication tools will best get the message across to employees, and to better understand the organizational environment (for example, healthy food in cafeterias, accessible and attractive stairways for a floor or two as an alternative to the elevators, walking or cycling to and from mass transit locations, healthy snacks in vending machines, downplaying the provision of unhealthy snacks in break rooms or in meetings, and discouraging alcohol abuse after hours at company events).

One is then ready to develop a succinct mission statement followed by appropriate goals and objectives and the program design, complete with a timeline and budget.

Selection of the incentives is crucial because one wants to motivate rather than alienate employees. Incentives include: modest financial rewards, time off, token items used as promotional marketing tools, and competitions. The real reward should be improved health such as weight loss.

Complementary and supplementary resources are important. Program materials can be found online or modified to fit the organization's specific needs. It is also important to develop a list of resources available to employees including information from health organizations and governmental agencies. In many communities speakers from hospitals and non-profit organizations can complement the wellness program.

The basis for marketing the program depends on the previously described steps. At this time one has a more thorough understanding of how to meet the wellness needs of the employee population. There should be a sense of shared ownership of the program. Choosing an appropriate and attractive name, logo, slogans and the like are important for

effective communication of the wellness program to employees and other stakeholders. As always, the best promoters are satisfied employees (that is, the customers).

After the program is implemented one must then evaluate the program in statistical measures such as health care screenings; percentage of tobacco users that quit; BMI reduction; blood sugar, cholesterol, and blood pressure reductions; and so forth. One must be careful to include testimonials of successful participants because their stories might prove more compelling than overall statistical results to some stakeholders. A number of individuals can succeed in their struggle with obesity making the program successful in their eyes, even if the general population in the wellness program makes more modest progress. Employers often report progress in return on investment, which could be valued by employees, but presumably they would be most interested in their improved health.

IMPLEMENTING WELLNESS PROGRAMS

One key is managing the stakeholder dialogue, conceptually applicable to the transportation industry just like any other, although specific regulatory (for example, key role of health assessments of drivers) differ from one industry to another, as do other contextual considerations. CEOs and their representatives sometimes must act like politicians dealing with numerous stakeholders who want to influence the management process.⁴⁶ Programs come under scrutiny by employees, unions, legislators, health advocates and countless others. Stakeholder theory includes external parties as well as internal. The central issues are to identify the key external parties and determine how to involve them (Freeman, 1984).⁴⁷ Basically, leaders should do the following:⁴⁸

Communicate and listen mindfully to unions, employees, external health advocacy groups, legislators and others. This requires meeting face-to-face to be attuned to feelings and non-verbal communication. Leaders need to maintain a positive attitude to the naysayer or critic to help one avert problems before they snowball. Critics often point out flaws that need to be addressed.

Seek common ground and shared goals since employee wellness is of interest to the employee and the organization in terms of reduced health care costs. Stereotyping can be problematic in diverse settings where sensitive topics are dealt with. One has to be attuned to differing needs of the various groups and probably use spokespeople that represent the diversity of participants so that one can empathize effectively. One has to be cautious to couch the program in terms of reduced health care costs and as a benefit to the individual employee who will feel better and enjoy greater longevity and a better quality of life. Few things are more sensitive than obesity to the obese individual, so one should try not to offend while still encouraging individuals to make the lifestyle changes consistent with better health.

In scrutinizing one's own assumptions one may find that one's views are not shared by others. One has to be open to learning from employees and other stakeholders rather than simply pushing one's view. One needs to frame future dialogue in a way that genuinely reflects the employee experience of success with wellness and a concern for the employee, not simply saving money on health care costs.

To the extent possible, allow self-determination within the program based on employee feedback and subsequent evaluation results.

Some obese employees could feel that they are being singled out. They are being penalized for behavior that is perfectly legal. They may risk paying more for insurance premiums unless they adhere to a special set of rules or at least foregoing incentives paid. They could see themselves as targets of stereotyping and possibly discrimination and that they are being treated unfairly and with disdain.⁴⁹

The employer sponsoring wellness is trying to improve the health and well being of employees, reduce costs, and produce a more effective workforce. One could argue that the organization is engaging in a form of corporate social responsibility in that it is concerned with the health of its employees and is doing everything possible to create a healthy work environment. In addition, if the healthcare costs get too high, the organization might be forced to make the employee pay a portion of the higher costs. From this perspective, the organization is trying to remain responsible to its employees.

The owners, be they shareholders or the public, will want to see effective use of resources. A cost benefit analysis could be based on an impartial evaluation and then communicated to stakeholders along with the testimonials.

Another implementation guide was provided by Dow Chemical, which listed “Ten Tips for Implementing Wellness Interventions”:⁵⁰

- 1) Integration is key. Worksite wellness programs work best, and are more likely to be sustainable, when they are integrated into a comprehensive health and complementary communications strategy. Early involvement with communication partners who can facilitate messaging throughout existing company vehicles and promote connections between all available programs and benefits is key. Integrated efforts of all key stakeholders will increase the value of your program, leading to increased employee engagement and sustainable behaviors.
- 2) Assess resource needs. During program planning, assess human and financial resources required to launch and sustain the program. Consider time required and costs of program materials, incentives, and other related expenses to ensure the resources are available to give your program the best chance for success.
- 3) Engage leadership involvement. Leaders and managers and support networks can be champions for facilitating a culture that encourages participation and enthusiasm. These people can also help determine which tactics and interventions are appropriate and will inspire employees. Visible support and participation by company leaders demonstrates a culture of health and can contribute to motivating employees.
- 4) Target health risk priorities, set goals, track and measure. Use health assessment results and/or claims data to determine top avoidable risk

factors. Set your program goals to reduce those risks, and then track progress continuously. Measurement is essential, allowing you to make course corrections as needed and to report progress to executive leadership and to employees.

- 5) Do what works. Measure communication and implementation tactics to understand what is essential and what is expendable. For example, which initiatives lead to increased interest and participation?
- 6) Communicate, communicate, communicate. Many organizations under-communicate with employees and do not use every available outreach channel. In fact, barely 35 percent of U.S. workers rate benefits communications as “highly effective.” Communicate early and often, integrate messaging within existing company communication vehicles, and encourage leaders and managers to promote the program among employees.
- 7) Clarify responsibilities. It is important that all stakeholders and staff understand their roles and responsibilities to ensure planning and implementation success, as well as program sustainability. Be specific with requests with for support. This will help prevent confusion, promote accountability, and keep tasks from being overlooked. Make sure the staff and implementation teams are supported and appreciated for their efforts.
- 8) Plan for the unforeseeable. Preparing a contingency plan allows you to expect the unexpected so you can react quickly to change and keep health initiatives from being relegated to the bottom of the priority list. Examples include a natural disaster, acquisitions, an economic downturn, or changes in company leadership.
- 9) Celebrate success and achievements. Optimism, enthusiasm and teamwork are contagious. Encourage goal setting (for example, participation, weight loss, steps per day) and celebrate individual, team or site successes and achievements. Offer relevant incentives to encourage friendly competition.
- 10) Listen and respond. Listen to what employees want and try to meet or at least address requests. Take advantage of new employee orientation to encourage participation and gather new ideas.

Dow Chemical is a member of the National Business Group on Health, an association of nearly 300 companies and organizations concerned about rising health care costs.

PROMOTION OF THE WELLNESS PROGRAM

The employer’s representative in charge of wellness should initiate a dialogue within the organization to address the concerns and fears of the employees. She may want to get some employees to become spokespeople in favor of the wellness initiative. She could get the newly designated spokespeople to interface with the media. She could also highlight

and celebrate their success stories and make sure the media broadcasts them, including testimonials. She should be transparent and provide updates to the employees on a periodic basis through newsletters. Later she could provide the results of an evaluation of the program.

Viral promotion of the program entails employees promoting it to one another. This is a direct consequence of individual success. For example, some people have tried to quit smoking and failed and finally succeeded and now feel better. Others may have failed to keep weight off but now feel empowered to do so.

Exhorting people to eat right, stop using tobacco products and exercise has limited impact. Potential wellness program customers have to see the merit of the programs, which is why the screenings are critical. Some people need to be threatened by looming health problems to make the commitment to a wellness program involving exercise, improved nutrition and eating habits, and tobacco-use cessation.

One motivating factor is sometimes overlooked for men—erectile dysfunction (ED), which has an obvious indirect affect on women. Bacon et al. suggest this approach.⁵¹ They examined the relationship between erectile dysfunction and obesity, physical activity, alcohol use and smoking. They concluded that risk mitigation of erectile dysfunction could motivate men to participate in health promoting behaviors (that is, smoking cessation, weight loss, and increased physical activity). Two studies in Italy also reported the link between obesity and erectile dysfunction.⁵² Dr. Oz, the popular television physician who appeared on Oprah, told overweight men to lose 35 pounds for a 1-inch-gain in their penis length.⁵³

Oprah showed a tape of Dr. Aaron Epstein, M.D., an emergency physician at Lake Forest Hospital in Lake Forest Illinois. Dr. Epstein commented on Dr. Oz's comments that men who lost 30+ pounds would gain one inch in penis length. Dr. Epstein said, "When I'm working a Wednesday shift I could actually guess what the topic of the Oprah show was on Tuesday." He continued "for some reason overweight men starting to exercise and workout. We saw a rash of muscle strains and back pains and pulled groin muscles in the emergency department, and I couldn't figure out why the change of heart all of a sudden. Then my wife told me she learned on the Dr. Oz show that week that men who lost 30 pounds of weight would gain an inch in their penis size, and I put it all together and it made sense."

However, wellness program coaches and authorities contacted by the authors did not use ED mitigation as a focal promotional tool. Coaches stated that they thought this was something better discussed with one's primary care provider. One can understand that a young female wellness coach would not want to discuss such a personal topic with an individual driver at a truck stop. However, promotional materials sent out to drivers, online educational information, classroom discussions and other less personal settings or channels could be used to discuss ED. Given the attention society places on sexual functioning and promoting ED medication, mitigation of ED would be a motivating factor for male drivers/operators.

One must empathize with the obese—they are stigmatized, but often feel powerless to do enough to lose the weight. It is puzzling why some suffer discomfort and ridicule for years and then finally decide to do something about it. Perhaps it was bad news from the doctor in terms of diabetes, blood pressure, sleep apnea or some other medical problem. In the case of commercial drivers and operators, they face the hurdle of obligatory governmental tests to ensure their suitability as drivers and operators.

To encourage proper eating, organizations need to both inform employees of the nutritional value of foods and offer healthy choices in vending machines and cafeterias. Assorted online calorie counters can provide employees with all the feedback they need in terms of rating specific foods as well as analyzing their overall nutritional intake (for example, chicken breasts, ham, salmon, sardines, and other lean meats or those high in nutrients are preferred over beef). But the employee still has to assume the responsibility for doing so, which means overcoming poor eating habits, avoiding out-of-control eating when tired or stressed, altering social patterns so that not all gatherings revolve around food, frequenting restaurants with nutritionally sound choices (for example, Subway instead of hamburgers and fries), cutting back on caloric consumption of inessential foods such as alcohol or desserts and all this while exercising the equivalent of a five-mile walk daily. This presents a collection of monumental challenges. Many people need to fear the consequences of poor health indicators typically measured in wellness programs to feel motivated. But still some will remain oblivious even when shown how sick people become with diabetes or the debilitating after effects of stroke.

Furthermore, organizations have to get their communities involved as well to promote mass transit that involves walking or cycling to and from home to the mass transit center, establish bicycle and walking paths close to where people live, increase congestion in cities (for example, Portland, OR) so that people are more inclined to walk places, pressure restaurants and corporations to offer healthy choices, remove sugar drinks from school cafeterias and vending machines, discourage sedentary couch potato recreation by offering alternatives (for example, softball leagues, bowling leagues, and the like) and related measures that vary from community to community. One way to increase walking is to use a pedometer.⁵⁴

The list of things that individuals, organizations and the community need to do to promote wellness is extensive. A holistic effort by individuals, employers and their communities is required.

Researchers examined the relationship between erectile dysfunction and obesity, physical activity, alcohol use and smoking. They concluded that risk mitigation of erectile dysfunction could motivate men to participate in health promoting behaviors (that is, smoking cessation, weight loss, and increased physical activity).⁵⁵

EVALUATION OF WELLNESS PROGRAMMING

Goals can be quantified in terms of participation rates, achievements (that is, reduction of BMI, blood pressure, cholesterol, smoking cessation, glucose and other indicators), health insurance cost reductions, reduction in absenteeism, and whatever the organization chose to survey. Clearly the critical factor for organizations is reducing the economic burden of health care costs. Simple awareness of BMI indicative of obesity and the associated health risks (for example, high glucose indicative of diabetes, high cholesterol and high blood pressure leading to cardio-vascular problems or strokes) is not enough because battling BMI involves lifestyle changes where improved diet and nutrition and exercise are made priorities in peoples' lives.

In the case of the 14 transit authorities that responded to the Transportation Research Board (2004) survey,⁵⁶ 11 tracked employee participation in program activities. Other measures included employee satisfaction, biometric measures associated with wellness, only 5 performed cost effectiveness or return on investment analyses. Four measured absenteeism, turnover and morale.

OBESITY

Next we will discuss obesity because of its importance to individual health and the obesity epidemic the U.S. faces. As pointed out repeatedly at the November 8-10, 2010 International Conference on Commercial Driver Health and Wellness, this concern regarding obesity is shared with the transportation industry where commercial drivers find it difficult to exercise and have access to poor food choices while on the road. Even the military is worried about obese recruits not passing the physical examination.⁵⁷ One has to be cautious about individual differences because some overweight or obese people are active or enjoy a genetic predisposition to health and can be healthier than sedentary people or those with genetic problems but who are of normal weight. Researchers found that "23.5 percent of individuals with normal weight were metabolically abnormal and 51.3 percent of overweight adults and 31.7 percent of obese adults were metabolically healthy."⁵⁸ Since close to half of overweight people and nearly a third of obese people were found to be healthy, generalizations about obesity must be tempered. Furthermore, David Feeney of Portland's Kaiser Permanente Center for Health Research found that overweight people live longer than their normal weight counterparts; he stated, "The evidence is accumulating that being overweight may be protective."⁵⁹ Also, BMI can be misleading in that muscular people can weigh enough to be classified as obese yet their body fat percentage could fall into the fit range. "I don't think we can arbitrarily pick out one specific set of people with health risks," San Francisco internist Ann Haiden, MD, tells WebMD.⁶⁰ "There is evidence that fit people with a little excess weight can actually be healthier than unhealthy normal-weight people."

Public health issues can be difficult to address because behavioral changes are required and different levels of addiction complicate the effort to change behavior. The discussion of obesity is presented regarding the following topics:

- What are the causes of obesity?

- How can people keep the weight off? This is an important question in that many people fail to keep weight off that they lose.

WHAT ARE THE CAUSES OF OBESITY?

Obesity is defined as a Body Mass Index equal to or greater than 30. According to the Center for Disease Control:⁶¹

During the past 20 years there has been a dramatic increase in obesity in the United States. In 2008 ... thirty-two states had a prevalence equal to or greater than 25%; six of these states (Alabama, Mississippi, Oklahoma, South Carolina, Tennessee, and West Virginia) had a prevalence of obesity equal to or greater than 30%.

People eat too much and exercise too little to burn the excess calories; however, “genes, metabolism, behavior, environment, culture, and socioeconomic status” can be causal factors as well. Though genetics play a role, the dramatic increase in obesity is not due to changing genetics as that takes a very long time.⁶²

Kessler (2009), the former FDA commissioner, explained that the large food corporations focus on creating foods that people crave.⁶³ Their labs manipulate sugar, salt and fat content to enhance “craveability.” He also explained how some chain restaurants make food more palatable, permitting less chewing thereby promoting faster eating. He also discussed how controlling overeating is not simply a function of will power; it is only possible with intentional planning and practice to overcome what have become automatic routines associated with overeating. Wellness programs are a vehicle for people to make the effort in a structured manner and not simply rely on independent will power.

Poverty sometimes forces people to opt for the dollar menu in fast food restaurants rather than shopping for vegetables and lean protein sources.⁶⁴ Additionally, as presented in the 2008 Public Broadcasting System’s documentary “Unnatural Causes: is Inequality Making us Sick?,” in poorer neighborhoods, it is difficult to obtain fresh fruit and vegetables, but easy to find corner convenience, fast food, or liquor stores.⁶⁵ Also, in such neighborhoods, parks are scarce, which discourages outside exercise and walking. Hence, children and adults living in such places are more likely to be more obese and less healthy.

Cosgrove, the CEO of the Cleveland Clinic, urged that society undertake a massive public-health effort to drive down the obesity rate. He added that the Cleveland Clinic was offering its employees access to fitness facilities, healthier food in its cafeterias and encouraging people to walk more by giving out pedometers.⁶⁶

There are regional and ethnic differences in the stigmatization of the obese. Public health campaigns have to take these differences into consideration if they are going to communicate with people. There are cultural differences of norms for different body types. Some cultures find a larger body type more acceptable and attractive—for example, Pacific Islanders.⁶⁷ African-Americans and Mexican-Americans tend to be more obese compared to Asian-Americans.⁶⁸

In the general population, there is an inverse correlation between education and BMI; college graduates had a 20% incidence of obesity whereas 29.4% of those with less than a high school education were obese.⁶⁹ Additionally people of color (in the U.S.), both Black and Hispanic, tended to have higher rates of obesity as shown in table 2 with Black women having the highest incidence (that is, 40%):

Table 3. Prevalence* of Obesity† Among Adults, by Black/White Race or Hispanic Ethnicity, Census Region,§ and Sex --- Behavioral Risk Factor Surveillance System Surveys, United States, 2006–2008 (With only the Results Shown for the Overall Country, the South).

Census Region	White, Non-Hispanic (n = 900,629)		Black, Non-Hispanic (n = 84,838)		Hispanic (n = 63,825)	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
Overall						
Both Sexes	23.7	(23.5–23.9)	35.7	(35.0–36.3)	28.7	(28.0–29.5)
Men	25.4	(25.1–25.7)	31.6	(30.6–32.7)	27.8	(26.7–28.9)
Women	21.8	(21.6–22.1)	39.2	(38.5–40.0)	29.4	(28.5–30.3)
South						
Both Sexes	24.4	(24.1–24.7)	36.9	(36.2–37.7)	29.2	(28.1–30.3)
Men	26.3	(25.8–26.8)	32.6	(31.4–33.9)	28.3	(26.6–30.1)
Women	22.5	(22.1–22.9)	40.6	(39.7–41.5)	29.7	(28.3–31.1)

* Age adjusted to the 2000 U.S. standard population.† Body mass index (BMI) ≥ 30.0 ; BMI was calculated from self-reported weight and height (weight [kg] / height [m²]).§ Additional information available at <http://www.census.gov>. ¶ Confidence interval.

HOW CAN PEOPLE KEEP THE WEIGHT OFF?

Research has shown that obese people are stereotyped, targets of discrimination, and subject to many hurtful biases and explicit disdain.⁷⁰ Stereotypes people hold of those who are obese include being lazy, lacking self control, dirty, and sloppy. Societal perceptions of obese people include views that they are unhealthy, unfit, always hungry, and sedentary or immobile.⁷¹ Such attitudes toward obese people may result in negatively biased treatment in education, healthcare, and at the workplace.⁷² For some people, trying to avoid such stereotypes is motivating.

Health assessment and wellness programs target behavior. The follow up in weight loss programs may involve support groups and education to empower the formerly obese to plan, monitor and control their weight through exercise and sound nutrition. With the obese, simply urging them to exercise more can actually be counterproductive if they then eat more; restricted caloric intake has to accompany most exercise programs for the obese to succeed.⁷³

The greatest challenge of obesity is altering one's lifestyle to keep the weight off. The National Weight Loss Registry (<http://www.nwcr.ws/>) is an ongoing research project dealing with adults that "have maintained at least a 30 pound weight loss for one year or longer" It reports the following summary of facts regarding its members:⁷⁴

Table 3. NWCR Facts

- 80% of persons in the registry are women and 20% are men.
- The "average" woman is 45 years of age and currently weighs 145 lbs, while the "average" man is 49 years of age and currently weighs 190 lbs.
- Registry members have lost an average of 66 lbs and kept it off for 5.5 years.
- These averages, however, hide a lot of diversity:
- Weight losses have ranged from 30 to 300 lbs.
- Duration of successful weight loss has ranged from 1 year to 66 years!
- Some have lost the weight rapidly, while others have lost weight very slowly--over as many as 14 years.
- 45% of registry participants lost the weight on their own and the other 55% lost weight with the help of some type of program.
- 98% of Registry participants report that they modified their food intake in some way to lose weight.
- 94% increased their physical activity, with the most frequently reported form of activity being walking.
- There is variety in how NWCR members keep the weight off. Most report continuing to maintain a low calorie, low fat diet and doing high levels of activity.
- 78% eat breakfast every day.
- 75% weigh them selves at least once a week.
- 62% watch less than 10 hours of TV per week.
- 90% exercise, on average, about 1 hour per day.

There are a number of websites (for example, <http://www.sparkpeople.com/> and <http://caloriecount.about.com/>) that permit one to log food intake. Intake journals are essential because people often underestimate the number of calories they consume. Furthermore the food intake tools often grade food consumed (for example, non-nutritious fats, fast

food, and spirits receive failing ratings) and analyze the nutritional content to give feedback on deficiencies and excesses (for example, too much fat, too little calcium or too little potassium).

Another consideration is the risk of weight loss programs. Obese people can be desperate to lose weight and may engage in unsafe practices to do so. A particularly destructive one was fen-phen.⁷⁵ In 1997 the Mayo Clinic found that 24 patients had heart valve disease from taking fen-phen. Because of the problems associated with fen-phen, the manufacturers withdrew the products from the market and the FDA recommended that use of fen-phen be discontinued. Prescription and non-prescription diet pills and herbal supplements, which many people take to suppress appetite, can have adverse side effects such as heart attacks, headaches, nausea and vomiting, as well as even more serious complications that can result in fatalities from heart attack, stroke, and renal failure. Too few calories over a period of time deplete the body of healthy nutrition, slow the metabolism, and can cause health issues related to vitamin deficiencies, decrease in bone mass, malnourishment, and when accompanied with extreme exercise, a strain on the heart which can cause heart failure. Even though calorie restriction accompanied with exercise is the fastest way to lose weight, once the calorie intake is increased, the weight is quickly regained. Similarly, fad diets (for instance, Atkins, cabbage soup diet, and the Zone) may temporarily result in weight loss (sometimes at the cost of nutrition), but once normal eating habits are resumed, the weight is regained. Surgery for weight reduction (for instance, gastric bypass surgery) has many physical and psychological side effects and its safety and effectiveness as a method of weight loss is controversial.⁷⁶

Research is ongoing on obesity and wellness. External assessment is useful in terms of credibility and the assessment consultant can share information gleaned from other organizations' experiences with wellness. There is no magic bullet or pill. Getting people to lose weight is not difficult but keeping it off requires behavioral and contextual changes so that weight maintenance is enhanced. Smoking cessation programs have worked for many, but it is alarming that so many college students still smoke. Hospitals now need special units with beds and equipment to deal with morbidly obese patients. Wellness programs have clearly been beneficial to some and organizations perceive them as essential to controlling health care costs. Much more work is needed to create cities where people want to walk and cycle. We need to reduce dependency on individually operated vehicles by promoting mass transit use that encourages walking to and from buses and trains. Employers need to provide healthy food options in cafeterias and design buildings that encourage walking and stair climbing. The government and industry need to ensure that supermarkets are available in poor neighborhoods to reduce the default to fast food. Public education needs to teach people what they are eating. Collectively we need to change harmful cultural practices (for instance, fried Southern food), and the list goes on and on. Wellness programs are just a part of the solution. Wellness is not just about reducing health care costs and improving individual well being—current caloric and red meat intake are unsustainable from a carbon footprint perspective.

Although one benefit for middle-aged men that were previously obese and suffering erectile dysfunction is that they may regain their sexual functioning without the need of medication, wellness programs generally choose not to promote this benefit. Instead they

rely on personal conversations between the individual and his health care provider. Other wellness programs have encountered difficulty because of reactions to issues that perhaps were perceived as invasions of personal autonomy—for instance, gun ownership⁷⁷ and the perception of a fat tax.⁷⁸ An answer might be for governmental agencies to take the lead in publicizing the beneficial impact on erectile dysfunction through weight loss in men. California's ads dealing with smoking and erectile dysfunction were part of a general campaign to reduce smoking that gave it one of the lower rates of smoking in the nation, second to the lowest, which was Utah.⁷⁹

IV. CONCLUSIONS

The case studies added value to wellness information in the following ways:

UNION PACIFIC

Making exercise equipment mobile in box cars increased convenience of use for mobile railroad employees. Though the circumstance is unique to a railroad, convenience of opportunity for exercise is essential for people that travel. Companies that require employees to travel could offer gym coupons, exercise DVDs for use in hotel rooms, and encourage ongoing monitoring of walking through the use of pedometers.

The company collaborates with other corporations, organizations and universities devoted to controlling health care costs. The National Business Council on Health has been active since 1974 attempting to address health insurance related issues.

Occupational health nurses support users through wellness programming, assist in the prevention of injuries, and respond to injuries and illness when they appear. The strong relationships of the nurses to users were pivotal to the program's success. Nurses encourage and support users in their wellness activities and enhance communication. They are employees of the railroad representing the corporation's employee health and safety program in addition to wellness. Because they are employees, they are part of the culture and plugged into the organizational communication of the organization as opposed to an outside contractor that may not be as attuned to the organization.

A critical metric is return on investment.

There is always the risk of programs being fads, but that has not been true of HealthTrack, which is clearly part of the railroad's business strategy.

CON-WAY FREIGHT AND WELLNESS COACHES USA

The wellness program generated quick results with a reduction in workplace injuries and related worker's compensation costs of 80 percent, and a corresponding reduction of lost work days of 75 percent.

Participation was very high—greater than 95 percent of CF's employees had health risk assessments followed up by over 80 percent of employees regularly (that is, at least six times annually) meeting with coaches to assess progress.

Competitions build excitement complemented by incentives to increase employee participation.

Stretching is also emphasized at Con-way to reduce injuries common to freight companies.

Effective coaching builds on trust between the employees and the coach. Sometimes employees worry that information might be shared with others or some start with an

assumption that management is simply furthering its own agenda. Trust builds along the way through effective engagement where the coach shows interest in on site face-to-face contact and then uses effective techniques so that the employee can see results.

THE UTAH TRANSIT AUTHORITY (UTA)

As is standard practice, wellness programs are independent of health insurance because confidentiality is critical. However, it is useful to emphasize that employees need to trust their wellness coaches to be able to honestly confront the challenges they face.

UTA lists its Wellness program as a standard benefit for both administrative and bargaining unit (that is, unionized) employees.

UTA's approach also builds community through team sports. It also provides discounted tickets for assorted family activities to promote healthier families.

The remedy for a host of problems begins and sometimes ends with weight loss.

All of its bargaining unit employees must submit to a DOT physical every two years and if their health is an issue they will be taken out of service. Union distrust relates to the DOT requirements. Bus operators cannot have excessively high blood pressure or out of range glucose. HIPAA laws protect confidentiality, but coaches are obligated to refer drivers with health problems to a physician.

PROMOTION AND IMPLEMENTATION OF WELLNESS PROGRAMS

The other points we wanted to emphasize are to encourage the use of ED mitigation in promotion of wellness programs and to consider structural interventions such as not hiring tobacco users where legal. The obvious importance of improved sexual functioning could prove a strong motivator to drivers and operators; wellness coaches need to find ways to include this consequence of weight loss and smoking cessation in their training materials on wellness. There is a curious reluctance amongst wellness coaches to discuss such matters openly, which is at odds with meeting clients where they are at.

The structural interventions possible to create a more promising wellness environment for drivers and operators include many things. We discussed how employers and society must work to counteract obesity, not just push the burden on individuals to eat less and exercise more. Of course, it ultimately comes down to the individual, but an environment supportive of weight reduction helps. Perhaps the most dramatic measure with the quickest return for employers and employees is simply to not hire tobacco users where legal. Employers that have done this have not suffered unduly from union pressure or law suits.

ENDNOTES

1. See <http://www.statehealthfacts.kff.org/comparebar.jsp?ind=82&cat=2&sub=24&yr=63&typ=2>
2. R. Thueson, "Healthy Utah Transit Authority: realizing the benefits of good health," *Utah Business*, October 1, 1991.
3. UTA, "UTA Admin. Benefits", n.d., <http://www.rideuta.com/files/UTAAdminBenefits.pdf>; UTA, "UTA Bargaining Benefits," n.d., <http://www.rideuta.com/files/UTABargainingBenefits.pdf>.
4. D. Hunnicutt, "Where There's Smoke, You're Fired," *WELCOA's Absolute Advantage Magazine*, 2007.
5. See <http://www.ohanet.org/Narrative/Tobacco-Free%20Hospitals>
6. See http://www.memorial.org/about_us_careers.html
7. See <http://susquehannahealth.org/>
8. See <http://www.gwinnettmedicalcenter.org/>
9. J. S. Rumberger and C. S. Hollenbeak, D., *Smoking Cessation: The Economic Benefits*. (Penn State University, April 30, 2010), <http://www.lungusa.org/stop-smoking/tobacco-control-advocacy/reports-resources/cessation-economic-benefits/reports/US.pdf>.
10. B. Glenn, "Ohio proposal would ban employers from refusing to hire smokers," *MedcityNews*, March 24, 2010, <http://www.medcitynews.com/2010/03/ohio-proposal-would-ban-employers-from-refusing-to-hire-smokers/>.
11. The ban is on tobacco use, but for the ease of editing we will use smoking or smokers rather than tobacco use or users where the latter is awkward.
12. See <http://www.dol.gov/dol/topic/health-plans/erisa.htm> for a detailed discussion of the ERISA act.
13. See <http://www.statehealthfacts.kff.org/comparebar.jsp?ind=82&cat=2&sub=24&yr=63&typ=2>
14. C. Valleau, "If you're smoking you're fired: How tobacco could be dangerous to more than just your health," *DePaul Journal of Health Care Law* 20 (2007): 457-492.
15. *Rodriguez v. Scotts Co., LLC*, No. 07-10104 (U.S. Dist. LEXIS 6682, 2008 WL 251971 2008).
16. *Rodriguez v. E. G. Systems, Inc.* (639 F. Supp. 2d 131 2009).

17. See *Brashear v. Simms* (138 F. Supp. 2d 693 2001); *Rose v. Home Depot U.S.A. Inc.* (186 F. Supp. 2d 595 2002); *Stevens v. Inland Waters, Inc.* (559 N.W.2d 61 1996); Valleau, “If you’re smoking you’re fired: How tobacco could be dangerous to more than just your health.”
18. See A. MacIntyre, *Whose Justice? Which Rationality?* (Notre Dame, Indiana: University of Notre Dame Press, 1988).
19. M. Conlin, “Get healthy—or else,” *Business Week*, February 26, 2007, <http://web.ebscohost.com.libaccess.sjlibrary.org/ehost/detail?vid=2&hid=111&sid=5451dd90-a696-48cd-abc8-67d305f670c5%40sessionmgr113&bdata=JnNpdGU9ZWZWhvc3QtbGJ2ZQ%3d%3d#db=bth&AN=24032548>.
20. *Ibid.*
21. See J. C. Pierotti, “The ‘Bottom Line’: A Smokescreen for the reality that anti-tobacco employment practices are hazardous to minority health and equality,” *Journal of Contemporary Health Law & Policy* 26 (2010): 441-470.
22. *Rodrigues v. E. G. Systems, Inc.*, 136.
23. A. Hendrix and J. Buck, “Employer-Sponsored wellness programs: should your employer be the boss of more than your work?,” *Southwestern Law Review* 38 (2009): 472.
24. Valleau, “If you’re smoking you’re fired: How tobacco could be dangerous to more than just your health.”
25. M. T. Henderson, “The nanny corporation,” *University of Chicago Law Review* 76 (2009): 1517-1611.
26. *Ibid.*, 1602-1603.
27. Hendrix and Buck, “Employer-Sponsored wellness programs: should your employer be the boss of more than your work?.”
28. S. D. Sugarman, “‘Lifestyle’ discrimination in employment,” *Berkeley Journal of Employment & Labor Law* 24 (2003): 377-438; B. W. Miller, “Your money or your lifestyle!: Employers’ efforts to contain healthcare costs - lifestyle discrimination against dependents of employees?,” *Indiana Health Law Review* 5 (2008): 371-401.
29. Sugarman, “‘Lifestyle’ discrimination in employment,” 391-392.
30. Tracey Maclin, “Is Obtaining an Arrestee’s DNA a Valid Special Needs Search Under the Fourth Amendment? What Should (and Will) the Supreme Court Do?,” *The Journal of Law, Medicine & Ethics* 34, no. 2 (2006): 169.

-
31. I. Byrnside, "Six clicks of separation: The legal ramifications of employers using social networking sites to research applicants.," *Vanderbilt Journal of Entertainment and Technology Law* 10 (2008): 451-453.
 32. *Rodrigues v. E. G. Systems, Inc.*, 134, footnote 1.
 33. *McDonell v. Hunter* (612 F. Supp. 1122 1985).
 34. Pierotti, "The 'Bottom Line': A Smokescreen for the reality that anti-tobacco employment practices are hazardous to minority health and equality," 470.
 35. Some Christian employers require abstinence. For example, one university where an author worked required abstinence from alcohol, forbade homosexual behavior, and even went so far as insisting that people refrain from gossip.
 36. Valleau, "If you're smoking you're fired: How tobacco could be dangerous to more than just your health.," 477.
 37. H. Brody and E. B. McKinney, "The ethics of requiring employees to quit smoking," *American Medical Association Journal of Ethics* 9 (2007): 52-55.
 38. For information on adverse impact see <http://www.eeoc.com> or <http://www.uniformguidelines.com/uniformguidelines.html#129>.
 39. Mary J. Davis et al., "Transit Operator Health and Wellness Programs: A Synthesis of Transit Practice." Transportation Research Board (2004).
 40. Jon R. Gabel et al., "Obesity And The Workplace: Current Programs And Attitudes Among Employers And Employees," *Health Affairs* 28, no. 1 (January 1, 2009): 46 -56.
 41. *Ibid.*, 55.
 42. E. Finkelstein, I. C. Fiebelkorn, and G. Wang, "The costs of obesity among full-time employees," *American Journal of Health Promotion* 20, no. 1 (2005): 49.
 43. E. A. Finkelstein et al., "Annual medical spending attributable to obesity: Payer and service-specific estimates," *Health Affairs – Web Exclusive* (July 27, 2009): 829.
 44. See <http://www.obesityresearch.nih.gov> for obesity related research.
 45. A. Osland and P. Wells, "Gunning down health assessment," *Journal of Critical Incidents* 1 (2008): 35-41.
 46. A. Murray, "Executive's fatal flaw: Failing to understand new demands on CEOs," *Wall Street Journal*, January 4, 2007.

-
47. R. E. Freeman, *Strategic management: A stakeholder approach*. (Boston: Pitman, 1984).
 48. Carol Reade et al., "Poverty and the Multiple Stakeholder Challenge for Global Leaders," *Journal of Management Education* 32, no. 6 (December 1, 2008): 820 -840.
 49. Paula M. Brochu and Melanie A. Morrison, "Implicit and Explicit Prejudice Toward Overweight and Average-Weight Men and Women: Testing Their Correspondence and Relation to Behavioral Intentions," *The Journal of Social Psychology* 147, no. 6 (2007): 681-706.
 50. Quoted from <http://www.businessgrouphealth.org/lightenup/lessons/learnings.cfm> accessed on July 21, 2010.
 51. Constance G. Bacon et al., "A Prospective Study of Risk Factors for Erectile Dysfunction," *The Journal of urology* 176, no. 1 (July 1, 2006): 217-221.
 52. Giovanni Corona et al., "Low Levels of Androgens in Men with Erectile Dysfunction and Obesity," *The Journal of Sexual Medicine* 5, no. 10 (2008): 2454-2463; Katherine Esposito et al., "Effect of Lifestyle Changes on Erectile Dysfunction in Obese Men," *JAMA: The Journal of the American Medical Association* 291, no. 24 (June 23, 2004): 2978 -2984.
 53. "Why Dr. Oz Tells Overweight Men – Lose 35 Pounds For 1 Inch Gain | HairBoutique.com Blog," *Hair Boutique*, June 13, 2009, <http://blogs.hairboutique.com/index.php/2009/06/13/why-dr-oz-tells-overweight-men-lose-35-pounds-for-1-inch-gain/>.
 54. D. M. Bravata, "Using pedometers to increase physical activity and improve health," *The Journal of the American Medical Association* 298, no. 19 (November 21, 2007): 2296.
 55. Bacon et al., "A Prospective Study of Risk Factors for Erectile Dysfunction," 217-221.
 56. Mary J. Davis et al., "Transit Operator Health and Wellness Programs: A Synthesis of Transit Practice." Transportation Research Board (2004). 28.
 57. B. J. Asch et al., "Military Enlistment of Hispanic Youth: Obstacles and Opportunities" (Rand Corporation, 2009), http://www.rand.org/pubs/monographs/2009/Rand_MG773.pdf.
 58. Rachel P. Wildman et al., "The Obese Without Cardiometabolic Risk Factor Clustering and the Normal Weight With Cardiometabolic Risk Factor Clustering: Prevalence and Correlates of 2 Phenotypes Among the U.S. Population (NHANES 1999-2004)," *Arch Intern Med* 168, no. 15 (2008): 1617-1624.
 59. UPI, "Study: Slightly overweight live longer," June 24, 2009, http://www.upi.com/Science_News/2009/06/24/Study-Slightly-overweight-live-longer/UPI-64961245860812/.

-
60. D. Fernandez, "Alabama 'Obesity Penalty' Stirs Debate: Plan Calls for State Employees to Pay More for Health Insurance if They Don't Lose Weight" (WebMD Health News, 2008), <http://www.medicinenet.com/script/main/art.asp?articlekey=92151>.
 61. CDC (Center for Disease Control), "Obesity and Overweight for Professionals: Data and Statistics: U.S. Obesity Trends | DNPAO | CDC," *Center for Disease Control and Prevention*, 2009, <http://www.cdc.gov/obesity/data/trends.html>.
 62. James O. Hill and Frederick L. Trowbridge, "Childhood Obesity: Future Directions and Research Priorities," *Pediatrics* 101, no. 3 (March 1, 1998): 570-574.
 63. D .A. Kessler, *The end of overeating: Taking control of the insatiable American appetite* (Emmaus, PA: Rodale Press, 2009).
 64. K. Weber, ed., "Food, Inc.: How industrial food is making us sicker, fatter, and poorer – and what we can do about it (a participant guide to the film of the same name)," (Public Affairs: New York, 2009).
 65. California Newsreel with Vital PicturesInc., *Unnatural causes...is inequality making us sick?* (National Minority Consortia: Public Television, 2008).
 66. J. Goldstein, "Should employers be allowed to deny jobs to the morbidly obese?," WSJ's blog on health and the business of health, *Health Blog*, August 12, 2009, <http://blogs.wsj.com/health/2009/08/12/should-employers-be-allowed-to-deny-jobs-to-the-morbidly-obese/>.
 67. Temple University, "Ideal Weight Varies Across Cultures, But Body Image Dissatisfaction Pervades," *ScienceDaily*, October 24, 2007.
 68. For more information on different cultural perspectives on obesity see Justina Padgett and Frank M. Biro, "Different shapes in different cultures: body dissatisfaction, overweight, and obesity in African-American and caucasian females," *Journal of Pediatric and Adolescent Gynecology* 16, no. 6 (December 2003): 349-354.
 69. CDC (Center for Disease Control), "State-specific prevalence of obesity among adults—United States, 2007.," *MMWR Weekly* 57, no. 28 (July 18, 2008): 765-768.
 70. Rebecca Puhl and Kelly D. Brownell, "Bias, Discrimination, and Obesity," *Obesity* 9, no. 12 (December 2001): 788-805.
 71. Brochu and Morrison, "Implicit and Explicit Prejudice Toward Overweight and Average-Weight Men and Women: Testing Their Correspondence and Relation to Behavioral Intentions."
 72. Puhl and Brownell, "Bias, Discrimination, and Obesity.,"; Brochu and Morrison, "Implicit and Explicit Prejudice Toward Overweight and Average-Weight Men and Women: Testing Their Correspondence and Relation to Behavioral Intentions."

73. J. Cloud, "Why exercise won't make you thin," *Time*, August 12, 2009.
74. "NWCR Facts," *The National Weight Control Registry*, January 4, 2010, <http://www.nwcr.ws/Research/default.htm>.
75. Retrieved on April 22, 2009 from <http://www.fda.gov/CDER/news/phen/fenphenqa2.htm>.
76. F. M. Berg, "Health Risks Associated With Weight Loss and Obesity Treatment Programs," *Journal of Social Issues* 55, no. 2 (1999): 277-297.
77. Osland and Wells, "Gunning down health assessment."
78. A. Osland, P. Wells, and W. Jiang, "Alabama's Fat Tax," *Accepted for publication by the Journal of Critical Incidents, Society for Case Research*. (n.d.): 2010.
79. CDC data, <http://www.medscape.com/viewarticle/589630>.

ABBREVIATIONS AND ACRONYMS

UTA	Utah Transit Authority
------------	------------------------

BIBLIOGRAPHY

- Asch, Beth J., Christopher Buck, Jacob Alex Klerman, Meredith Kleykamp, and David S. Loughran. "Military Enlistment of Hispanic Youth: Obstacles and Opportunities." Rand Corporation, 2009. http://www.rand.org/pubs/monographs/2009/Rand_MG773.pdf.
- Bacon, Constance G., Murray A. Mittleman, Ichiro Kawachi, Edward Giovannucci, Dale B. Glasser, and Eric B. Rimm. "A Prospective Study of Risk Factors for Erectile Dysfunction." *The Journal of urology* 176, no. 1 (July 1, 2006): 217-221.
- Berg, Frances M. "Health Risks Associated With Weight Loss and Obesity Treatment Programs." *Journal of Social Issues* 55, no. 2 (1999): 277-297.
- Brashear v. Simms* (138 F. Supp. 2d 693 2001).
- Bravata, Dena M. "Using pedometers to increase physical activity and improve health." *The Journal of the American Medical Association*, 298 (19) (November 21, 2007): 2296.
- Brochu, Paula M., and Melanie A. Morrison. "Implicit and Explicit Prejudice Toward Overweight and Average-Weight Men and Women: Testing Their Correspondence and Relation to Behavioral Intentions." *The Journal of Social Psychology* 147, no. 6 (2007): 681-706.
- Brody, Howard, and E. Bernadette McKinney. "The ethics of requiring employees to quit smoking." *American Medical Association Journal of Ethics* 9 (2007): 52-55.
- Byrnside, Ian. "Six clicks of separation: The legal ramifications of employers using social networking sites to research applicants." *Vanderbilt Journal of Entertainment and Technology Law* 10 (2008): 445-477.
- California Newsreel with Vital Pictures, Inc. *Unnatural causes...is inequality making us sick?* National Minority Consortia: Public Television, 2008.
- CDC (Centers for Disease Control and Prevention). "Obesity and Overweight for Professionals: Data and Statistics: U.S. Obesity Trends | DNPAO | CDC." *Center for Disease Control and Prevention*, 2009. <http://www.cdc.gov/obesity/data/trends.html>.
- . "State-specific prevalence of obesity among adults --- United States, 2007." *MMWR Weekly* 57, no. 28 (July 18, 2008): 765-768.
- CDC (Centers for Disease Control and Prevention). Vital signs: current cigarette smoking among adults aged >or=18 years --- United States, 2009. *MMWR Morbidity and Mortality Weekly Report* 59 (35) (10 September 2010): 1135-40.

- Cloud, J. "Why exercise won't make you thin." *Time*, August 12, 2009.
- Conlin, Michelle. "Get healthy—or else." *Business Week*, February 26, 2007. <http://web.ebscohost.com.libaccess.sjlibrary.org/ehost/detail?vid=2&hid=111&sid=5451dd90-a696-48cd-abc8-67d305f670c5%40sessionmgr113&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=bth&AN=24032548>.
- Corona, Giovanni, Edoardo Mannucci, Alessandra D. Fisher, Francesco Lotti, Luisa Petrone, Giancarlo Balercia, Elisa Bandini, Gianni Forti, and Mario Maggi. "Low Levels of Androgens in Men with Erectile Dysfunction and Obesity." *The Journal of Sexual Medicine* 5, no. 10 (2008): 2454-2463.
- Esposito, Katherine, Francesco Giugliano, Carmen Di Palo, Giovanni Giugliano, Raffaele Marfella, Francesco D'Andrea, Massimo D'Armiento, and Dario Giugliano. "Effect of Lifestyle Changes on Erectile Dysfunction in Obese Men." *JAMA: The Journal of the American Medical Association* 291, no. 24 (June 23, 2004): 2978 -2984.
- Fernandez, Don. "Alabama 'Obesity Penalty' Stirs Debate: Plan Calls for State Employees to Pay More for Health Insurance if They Don't Lose Weight." WebMD Health News, 2008. <http://www.medicinenet.com/script/main/art.asp?articlekey=92151>.
- Finkelstein, Eric A., Justin G. Trogon, Joel W. Cohen, and William Dietz. "Annual medical spending attributable to obesity: Payer and service-specific estimates." *Health Affairs – Web Exclusive* (July 27, 2009): 822-831.
- Finkelstein, Eric, Ian C. Fiebelkorn, and Guijing Wang. "The costs of obesity among full-time employees." *American Journal of Health Promotion* 20, no. 1 (2005): 45-51.
- Freeman, R. Edward. *Strategic management: A stakeholder approach*. Boston: Pitman, 1984.
- Gabel, Jon R., Heidi Whitmore, Jeremy Pickreign, Christine C. Ferguson, Anjali Jain, Shova KC, and Hilary Scherer. "Obesity And The Workplace: Current Programs And Attitudes Among Employers And Employees." *Health Affairs* 28, no. 1 (January 1, 2009): 46 -56.
- Glenn, Brandon. "Ohio proposal would ban employers from refusing to hire smokers." MedcityNews. (March 24, 2010). Accessed on May 25, 2011 at <http://www.medcitynews.com/2010/03/ohio-proposal-would-ban-employers-from-refusing-to-hire-smokers/>
- Goldstein, Jacob. "Should employers be allowed to deny jobs to the morbidly obese?" WSJ's blog on health and the business of health. *Health Blog*, August 12, 2009. <http://blogs.wsj.com/health/2009/08/12/should-employers-be-allowed-to-deny-jobs-to-the-morbidly-obese/>.

-
- Henderson, M. Todd. "The nanny corporation." *University of Chicago Law Review* 76 (2009): 1517-1611.
- Hendrix, Ann, and Josh Buck. "Employer-Sponsored wellness programs: should your employer be the boss of more than your work?" *Southwestern Law Review* 38 (2009): 465-501.
- Hill, James O., and Frederick L. Trowbridge. "Childhood Obesity: Future Directions and Research Priorities." *Pediatrics* 101, no. 3 (March 1, 1998): 570-574.
- Hunnicut, David. "Where There's Smoke, You're Fired." WELCOA's Absolute Advantage Magazine, 6(2) (2007): 18-25.
- Kessler, David A. *The end of overeating: Taking control of the insatiable American appetite*. Emmaus, PA: Rodale Press, 2009.
- MacIntyre, Alasdair. *Whose Justice? Which Rationality?* Notre Dame, Indiana: University of Notre Dame Press, 1988.
- Maclin, Tracey. "Is Obtaining an Arrestee's DNA a Valid Special Needs Search Under the Fourth Amendment? What Should (and Will) the Supreme Court Do?" *The Journal of Law, Medicine & Ethics* 34, no. 2 (2006): 165-187.
- McDonell v. Hunter* (612 F. Supp. 1122 1985).
- Miller, Brendan W. "Your money or your lifestyle!: Employers' efforts to contain healthcare costs - lifestyle discrimination against dependents of employees?" *Indiana Health Law Review* 5 (2008): 371-401.
- Murray, Alan. "Executive's fatal flaw: Failing to understand new demands on CEOs." *Wall Street Journal*, January 4, 2007.
- "NWCR Facts." *The National Weight Control Registry*, January 4, 2010. <http://www.nwcr.ws/Research/default.htm>.
- Osland, Asbjorn, and Pamela Wells. "Gunning down health assessment." *Journal of Critical Incidents* 1 (2008): 35-41.
- Osland, Asbjorn, Pamela Wells, and William Jiang. "Alabama's Fat Tax." Accepted for publication by the *Journal of Critical Incidents*, Society for Case Research. (n.d.): 2010.
- Padgett, Justina, and Frank M. Biro. "Different shapes in different cultures: body dissatisfaction, overweight, and obesity in African-American and caucasian females." *Journal of Pediatric and Adolescent Gynecology* 16, no. 6 (December 2003): 349-354.

- Pierotti, Jennifer C. "The 'Bottom Line': A Smokescreen for the reality that anti-tobacco employment practices are hazardous to minority health and equality." *Journal of Contemporary Health Law & Policy* 26 (2010): 441-470.
- Puhl, Rebecca, and Kelly D. Brownell. "Bias, Discrimination, and Obesity." *Obesity* 9, no. 12 (December 2001): 788-805.
- Reade, Carol, Anne Marie Todd, Asbjorn Osland, and Joyce Osland. "Poverty and the Multiple Stakeholder Challenge for Global Leaders." *Journal of Management Education* 32, no. 6 (December 1, 2008): 820 -840.
- Rodrigues v. E. G. Systems, Inc. (639 F. Supp. 2d 131 2009).
- Rodrigues v. Scotts Co., LLC, No. 07-10104 (U.S. Dist. LEXIS 6682, 2008 WL 251971 2008).
- Rose v. Home Depot U.S.A. Inc. (186 F. Supp. 2d 595 2002).
- Rumberger, Jill, Christopher Hollenbeak, and David Kline. "Smoking Cessation: The Economic Benefits." Penn State University, (April 30, 2010). Accessed at: <http://www.lungusa.org/stop-smoking/tobacco-control-advocacy/reports-resources/cessation-economic-benefits/reports/US.pdf>
- Stevens v. Inland Waters, Inc. (559 N.W.2d 61 1996).
- Sugarman, Stephen D. "'Lifestyle' discrimination in employment." *Berkeley Journal of Employment & Labor Law* 24 (2003): 377-438.
- Temple University. "Ideal Weight Varies Across Cultures, But Body Image Dissatisfaction Pervades." *ScienceDaily*, October 24, 2007.
- Thueson, Raylene. "Healthy Utah Transit Authority: realizing the benefits of good health." *Utah Business*, October 1, 1991.
- UPI. "Study: Slightly overweight live longer," June 24, 2009. http://www.upi.com/Science_News/2009/06/24/Study-Slightly-overweight-live-longer/UPI-64961245860812/.
- UTA. "UTA Admin. Benefits," n.d. <http://www.rideuta.com/files/UTAAdminBenefits.pdf>.
- . "UTA Bargaining Benefits," n.d. <http://www.rideuta.com/files/UTABargainingBenefits.pdf>.
- Valleau, Christopher. "If you're smoking you're fired: How tobacco could be dangerous to more than just your health." *DePaul Journal of Health Care Law* 20 (2007): 457-492.

Weber, Karl, ed. "Food, Inc.: How industrial food is making us sicker, fatter, and poorer – and what we can do about it (a participant guide to the film of the same name)." Public Affairs: New York, 2009.

"Why Dr. Oz Tells Overweight Men – Lose 35 Pounds For 1 Inch Gain | HairBoutique.com Blog." Hair Boutique, June 13, 2009. <http://blogs.hairboutique.com/index.php/2009/06/13/why-dr-oz-tells-overweight-men-lose-35-pounds-for-1-inch-gain/>.

Wildman, Rachel P., Paul Muntner, Kristi Reynolds, Aileen P. McGinn, Swapnil Rajpathak, Judith Wylie-Rosett, and Maryfran R. Sowers. "The Obese Without Cardiometabolic Risk Factor Clustering and the Normal Weight With Cardiometabolic Risk Factor Clustering: Prevalence and Correlates of 2 Phenotypes Among the US Population (NHANES 1999-2004)." Arch Intern Med 168, no. 15 (2008): 1617-1624.

ABOUT THE AUTHORS

ASBJORN OSLAND, PhD

Asbjorn Osland, Professor of Management, at San Jose State University, received his doctorate and MBA from Case Western Reserve University. He also holds an MSW and a post-baccalaureate in accounting. He has taught full time since 1993. Before that he worked abroad in Latin America and West Africa for 13 years for Chiquita Brands (2 years in Panama), Plan International (10 years in various countries), and Peace Corps in Colombia. His research interests are case writing, business and society, and international HRM, with over 60 published articles, cases and chapters and a comparable number of conference presentations.

NANETTE CLINCH, PhD, JD

Nanette Clinch, an attorney with a doctorate in English, teaches business law and ethics in the College of Business at San Jose State University. She practiced civil and criminal law, including service as an Assistant Prosecutor in New Jersey, gaining appointments as Chief of the Arson Section and Chief of the Environmental Crimes Section, which she organized. Research interests include beauty, ethical judgment, bioethics, religion and the law, classical philosophy, Shakespeare, and the moral imagination. She received a BA magna cum laude from Mount Holyoke College, a PhD from the University of Toronto and a JD from Rutgers Law School-Newark.

LAUREN RAMSAY, PhD

Lauren Ramsay, an industrial/organizational psychologist, is an Assistant Professor in the College Business at San José State University where she teaches human resource management courses and conducts research on organizational selection systems, diversity, and justice in the global workplace. Her research has been published in the international arena. She obtained her MA and PhD in industrial/organizational psychology from Michigan State University. She also holds an M.Ed. in counseling from the University of Puget Sound and a B.Soc.Sc. in industrial psychology and economic history from the University of Natal, South Africa. She is certified as a Senior Professional in Human Resources and has worked in industry in the United States, United Kingdom, and South Africa.

PAMELA WELLS, M.S.

Pamela Wells is a lecturer at San Jose State University in the College of Business. She has been a manager in health care for over 25 years. Her research interests are occupational health and safety, workplace bullying, and interpersonal relationships. She owns and operates Critical Moments Safety Training, LLC, a small business in the Bay Area dedicated to on site corporate safety training. Ms. Wells has a Masters in Industrial/Organizational Psychology from San Jose State University. She has co-authored publications in peer-reviewed journals such the Journal of Critical Incidents, Annual Advances in Business Cases, and Health Care Manager as well as contributing

cases to a textbook (Organizational Behavior: An Experiential Approach) and website (www.caseplace.org). She has consistently high teaching ratings at SJSU.

PEER REVIEW

San José State University, of the California State University system, and the MTI Board of Trustees have agreed upon a peer review process required for all research published by MTI. The purpose of the review process is to ensure that the results presented are based upon a professionally acceptable research protocol.

Research projects begin with the approval of a scope of work by the sponsoring entities, with in-process reviews by the MTI Research Director and the Research Associated Policy Oversight Committee (RAPOC). Review of the draft research product is conducted by the Research Committee of the Board of Trustees and may include invited critiques from other professionals in the subject field. The review is based on the professional propriety of the research methodology.

MTI FOUNDER

Hon. Norman Y. Mineta

MTI BOARD OF TRUSTEES

Honorary Chairman

John L. Mica (Ex-Officio)

Chair

House Transportation and Infrastructure Committee
House of Representatives

Honorary Co-Chair, Honorable

Nick Rahall (Ex-Officio)

Vice Chairman

House Transportation and Infrastructure Committee
House of Representatives

Chair, Mortimer Downey

(TE 2013)

Senior Advisor

PB Consult Inc.

Vice Chair, Steve Heminger

(TE 2013)

Executive Director

Metropolitan Transportation Commission

Executive Director

Rod Diridon* (TE 2011)

Mineta Transportation Institute

Thomas E. Barron (TE 2013)

President

Parsons Transportation Group

Ignacio Barron de Angoiti

(Ex-Officio)

Director Passenger and High Speed Department
International Union of Railways (UIC)

Joseph Boardman (Ex-Officio)

Chief Executive Officer

Amtrak

Donald H. Camph (TE 2012)

President

California Institute for Technology Exchange

Anne P. Canby (TE 2011)

President

Surface Transportation Policy Project

Julie Cunningham (TE 2013)

Executive Director/CEO

Conference of Minority

Transportation Officials

William Dorey (TE 2012)

President/CEO

Granite Construction Inc.

Malcolm Dougherty

(Ex-Officio)

Acting Director

California Department of Transportation

Nuria I. Fernandez (TE 2013)

Senior Vice President

Major Programs Group CHRMHill

Rose Guilbault (TE 2012)

Vice President

American Automobile Association

Ed Hamberger (Ex-Officio)

President/CEO

Association of American Railroads

John Horsley

(Ex-Officio)*

Executive Director

American Association of State

Highway and Transportation Officials

(AASHTO)

Will Kempton (TE 2012)

CEO

Orange County Transportation

Authority

William Millar* (Ex-Officio)

President

American Public Transportation

Association (APTA)

Norman Y. Mineta (Ex-Officio)

Vice Chairman

Hill & Knowlton

Secretary of Transportation (ret.)

Stephanie L. Pinson (TE 2013)

President/COO

Gilbert Tweed Associates, Inc.

David Steele (Ex-Officio)

Dean, College of Business

San José State University

Paul Toliver* (TE 2013)

President

New Age Industries

Michael S. Townes (TE 2011)

President/CEO (ret.)

Transportation District Commission of

Hampton Roads

David L. Turney* (TE 2012)

Chairman, President & CEO

Digital Recorders, Inc.

Edward Wytkind (Ex-Officio)

President

Transportation Trades Department,

AFL-CIO

** Honorary

* Chair

^ Vice Chair

Past Chair

Directors

Hon. Rod Diridon, Sr.

Executive Director

Karen E. Philbrick, PhD

Research Director

Peter Haas, PhD

Education Director

Donna Maurillo

Communications Director

Brian Michael Jenkins

National Transportation Security Center

Asha Weinstein Agrawal, PhD

National Transportation Finance Center

Research Associates Policy Oversight Committee

Asha Weinstein Agrawal, PhD

Urban and Regional Planning

San José State University

Jan Botha, PhD

Civil & Environmental Engineering

San José State University

Katherine Kao Cushing, PhD

Environmental Science

San José State University

Dave Czerwinski, PhD

Marketing and Decision Science

San José State University

Frances Edwards, PhD

Political Science

San José State University

Taeho Park, PhD

Organization and Management

San José State University

Diana Wu

Martin Luther King, Jr. Library

San José State University



MINETA
TRANSPORTATION INSTITUTE
MTI



SAN JOSÉ STATE
UNIVERSITY

Funded by U.S. Department of
Transportation and California
Department of Transportation

