

Research Roundup: Cross Subsidization at Hospitals, Building Better Teams and the Alcohol Bias

Published : July 18, 2012 in Knowledge@Wharton



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Do hospitals <u>depend on profitable services</u> to make up for the losses accrued by less profitable ones? How important are <u>time allocation and geographic dispersion</u> in teams that include members working on different projects with co-workers scattered in several different locales? How does a <u>person's drink</u> <u>choice</u> influence perceptions of his or her intelligence? Wharton professors Guy David and Lawton Burns, Martine Haas and Maurice Schweitzer, respectively, examined these issues and what they mean for business in recent research papers.

Accounting for the Cost of Competition among Hospitals

The concept of cross-subsidization is nothing new. From the barter systems of primitive societies to today's complex global economy, businesses and governments alike have used subsidization to keep down costs, protect against competition and bolster the bottom line. While there is plenty of anecdotal evidence regarding cross-subsidization across various industries, there's a dearth of data in the specific field of health care. Hospitals, for example, do not show from an accounting perspective how and to what extent they rely on profitable services to cover the financial shortfalls of unprofitable services. This lack of information led a pair of Wharton professors to ask: "Do hospitals cross subsidize?"

The question became the <u>title of a research paper</u> by Wharton health care management professors <u>Guy</u> <u>David</u> and <u>Lawton Burns</u>, Lorens A. Helmchen of George Mason University, and Richard Lindrooth of the University of Colorado Denver. In their work, funded by a grant from the National Bureau of Economic Research, the professors examined what happened when cardiac specialty hospitals set up shop in direct competition with general hospitals in Arizona and Colorado. Using patient-level data from before and after the specialty hospitals' entry into the market, they determined that incumbent hospitals responded to competition by reducing their offerings of unprofitable services and ramping up admissions for more profitable ones. The results, the professors say, are proof that cross-subsidization does exist.



Zeroing in on the answer was tough because there was scant quantitative information out there. David notes that the researchers needed to find some kind of experiment to test their hypothesis. "Most shocks that we see are going to shock the entire hospital. We were looking for an experiment that says, ' Here's a shock to profit that has nothing to do with the unprofitable service.' That's the first challenge," David says. "So when a specialty cardiac hospital enters the market, it creates a shock because there is a new competitor in the system. But if I'm heading the psychiatric department at a general hospital, I couldn't care less that a specialty cardiac hospital entered the market unless I am dependent on money from my cardiac unit to survive."

The second challenge was even more difficult to measure. The competition created by the new cardiac specialty site may cause the incumbent hospital to pour more resources into beefing up its own unit and retaining its physicians. As a result, the incumbent hospital may not see a decrease in the volume of patients, but it would essentially need to cross-subsidize to pay for the changes. "We wouldn't see that in the data because we would see cardiac volume go up, but at a cost that was borne by the psychiatric department," David notes. Just looking at hospital discharge data alone was not enough. The researchers built a structural model capable of mapping patient data and simulating what choices the patient would make when a new hospital enters the fray.

The professors relied on data from the Healthcare Cost and Utilization Project State Inpatient Database, which consists of inpatient discharge abstracts from all hospitals in Arizona and Colorado for the periods between 1997-1998 and 2005-2007. They augmented the dataset with statistics from American Hospital Association Annual Survey of Hospitals.

Arizona was chosen because entry occurred in two well-defined geographic locations during those periods. Tucson Heart Hospital opened in Tucson in 1998, Arizona Heart Hospital opened in Phoenix in 1999 and Banner Baywood Heart Hospital opened in Mesa in 2001. All experienced rapid growth that leveled off after the first few years. The professors focused on three uncontested services commonly thought to be unprofitable: psychiatric, trauma and substance-abuse care. They also measured the effects on one service thought to be profitable: neurosurgery.

"This is the first study to present systematic evidence of cross-subsidization of unprofitable service lines by using a shock to a profitable service line," the paper states. "We show that hospital systems adjusted their uncontested service offerings in the face of entry by single-specialty competitors. Consistent with cross-subsidization, reductions in the volume of psychiatric, substance abuse and trauma care were greater among hospital systems most exposed to a potential loss in volume of their cardiac services."

In addition, the researchers found that exposed hospitals increased their market share of profitable neurosurgeries. Implicit in this result is the idea that hospitals that cannot compensate by increasing profitable services would come under ever greater pressure to decrease unprofitable offerings.

David cautions that the paper does not take a position on whether cross-subsidization is an efficient or effective method for delivering health care. It simply establishes that cross-subsidization occurs. To be sure, health care is distinctly different from other industries that are purely profit driven.

Still, he notes, there are policy implications as the federal government <u>grapples with health care reform</u>. "There is a big question in the U.S. on how to finance health care," David says. "That's different than how we pay for health care because we pay for it no matter how we finance it. At the end of the day, you and I are paying for it. The question is what is the most efficient way: Should we pay for it through taxes or cross-subsidies? It's a welfare argument. It's not about whether hospitals should run like a business."

Timing and Teams: When Geography Matters

Technology has had a profound and irrevocable impact on the business world. The ability to communicate instantly and share data through a digital platform has changed how companies conduct business, removing the traditional obstacles of time and distance and enabling employees to work together while on opposite sides of the globe.

Although this new era of communication has caused a monumental shift in the business paradigm, it has raised new questions about how to manage project teams whose members are scattered across different



regions or countries. Time allocation becomes especially important as employees work on more than one team, spreading their skills and knowledge -- and attention -- across a broader spectrum of projects that need to get done.

In their research paper titled, "<u>So Many Teams, So Little Time: Time Allocation Matters in</u> <u>Geographically Dispersed Teams</u>," Wharton management professor <u>Martine Haas</u> and Jonathan N. Cummings of the Fuqua School of Business at Duke University studied the challenges of time allocation using original data they derived from surveys completed by employees of a multinational corporation. Their work focuses on two distinct dimensions: how much time members allocate to the focal team, and the number of teams to which each member belongs.

The professors postulated six sets of hypotheses regarding individual participation in a team. As expected, they found that performance was higher for teams whose members gave more of their time to the focal group. But performance was also higher for teams whose members serve on a number of other teams at the same time.

The study also reveals that location is a factor in team performance, with more dispersed employees needing to give more time to the focal team than employees who are in closer proximity to each other. According to Haas, the research, which was published in the *Journal of Organizational Behavior*, has implications for managers looking to design better, more effective teams for projects that are increasingly knowledge intensive and deadline oriented, and that draw on employees in widespread locations.

"The reality is that teams are increasingly using people who are coming in for a short time and who are involved in a lot of teams at once," Haas says. "It's such an important phenomenon. It's tied to multinational corporations trying to do a better job in sharing what they know around the world."

Rather than rely on third-party data, Haas and Cummings sought their own unique data by partnering with a large, multinational corporation. The identity of the business is protected under a confidentiality agreement that also ensures accurate responses from the participants. "We went in and did a comprehensive survey where we asked team members a battery of questions about their individual characteristics and their time allocation," Haas notes. "Then we analyzed the data and connected it to independent measures of team performance. It is unique, customized, hand-collected data."

Some of what they found was intuitive, she adds. For example, the leader of a team devoted more time and attention to that team and less time to other teams because of the level of responsibility associated with the role.

But the professors also discovered that highly skilled people were more likely to be involved in multiple teams, and that having members who were involved with multiple teams was associated with good team performance. A person with that kind of knowledge tends to be highly sought after, so his or her attention will likely be divided among many teams. And that's not necessarily a bad thing, says Haas. Teams composed of these valuable members also performed well. "That was a surprising result," she notes. "It's not necessarily causal, but it suggests if you take people who are assigned to several other teams already and bring them onto a new team, that team can benefit from their networks, knowledge and access to resources, even if they can't devote a lot of attention to the team. The exception is if the team members who are involved in lots of other projects are also very geographically dispersed -- in this case, the fact that they cannot devote much attention to the team makes the performance advantage disappear."

And even if there are performance benefits for the team, it's still important to consider time allocation issues for individual team members. The work of even the best employees begins to suffer when their attention is divided among too many teams or tasks, Haas says. It's critical for managers and team leaders to pay attention to "the tradeoff," she adds.

"It's not top of mind to be thinking about how overwhelmed these people are. You tend to say it's great to have somebody who is really good, even just for a little bit," she notes. "That's what this research brings to the forefront. If you think about people on your team, are they going to be able to devote enough time? Are they beneficial? It's thinking about the composition of the team -- not just that specialist whom everybody wants on the team, but being able to get people who will devote enough time."



'The Imbibing Idiot Bias': Hold an Alcoholic Beverage at Your Own Risk

It's no secret that getting drunk at a corporate event is usually not a good idea. But a recent research paper by Wharton operations and information management professor <u>Maurice Schweitzer</u> indicates that even being seen holding a glass of wine or a beer at certain events could pose a problem.

Schweitzer himself was surprised at the persistency of his findings, but together with his co-researcher, University of Michigan marketing professor Scott Rick, he found what the two have coined "the imbibing idiot bias": It doesn't matter whether you are a man or a woman, just holding an alcoholic beverage can change how others perceive you. Their paper, "<u>The Imbibing Idiot Bias: Consuming Alcohol Can Be</u><u>Hazardous to Your (Perceived) Intelligence</u>," is soon to be published in the *Journal of Consumer Psychology*.

"We found the results persistent and statistically significant among many studies. The effect is subtle so most people wouldn't be aware: It's not moving the needle from genius to idiot," Schweitzer says, adding that the bias he and his co-author observed stems from long-held associations between alcohol and "expectations of cognitive impairment." After all, alcohol has been known to transform friends and colleagues into bumbling idiots. And since the time of Noah in the Old Testament, the devastating effects of drunkenness have been documented and remain part of popular culture.

In the most dramatic study of the "imbibing idiot bias," research participants were shown five ads for alcohol and afterward, a photo of a person. Merely thinking about alcohol made subjects think that the person was less intelligent, the researchers found.

Schweitzer and Rick uncovered a dichotomy between how we feel about our own alcohol consumption and what we think about that behavior in others in a study in which they asked participants, "Who do you think is more likely to drink alcoholic beverages on a regular basis: highly intelligent people or less intelligent people?" "A significant majority of participants (60%) indicated that highly intelligent people and less intelligent people are about equally likely to drink alcoholic beverages on a regular basis," they write, and another 10% even thought that "routine alcohol consumption is diagnostic of high intelligence." Yet that's not what subjects in Schweitzer and Rick's other studies said when asked to judge others.

Explaining the discontinuity, Schweitzer notes, "I might ask you a question about racism and homophobia, and you might tell me you're not racist or homophobic, but you might be. We're influenced by a host of things that we may not be aware of, cues in our environment that influence us in ways that we don't recognize."

Another disconnect Schweitzer and Rick found was between "the intuitions job candidates have about ordering alcohol during a recruiting dinner" and the actual implications. They asked 44 executive MBA students if it was better to order soda or wine in an effort to impress a prospective employer during a recruiting dinner. "Most participants thought that ordering wine would make them appear more intelligent than ordering soda," the authors write. "Results from this study suggest that individuals have the wrong intuition about wine's ability to enhance their perceived intelligence."

Showing just how wrong that intuition was, the "imbibing idiot bias" was found to be so strong that it even "persists when targets did not actively choose to consume alcohol," according to the paper. In one of the other studies, Wharton undergraduates were asked to watch videos of speakers delivering persuasive arguments about whether the university should require comprehensive exams. The participating undergrads were told that the speakers in the videos were given a drink -- either Coca-Cola or beer. Half were told that the speakers chose the drink themselves, and the other half were told that the speakers didn't get to make their own choice.

"We were concerned that people would think that drink choice is the determinant," Schweitzer says. "When we manipulated whether speakers in the videos chose their drink or not, it didn't change things. Just the beverage they were holding mattered," even though the videotapes, and the persuasive arguments, were identical.

Job applicants may want to think twice about ordering a drink during an interview dinner given the next study, in which the researchers asked a paid panel of managers to review storyboards that portrayed the



dialogue, and showed photographs of a job interview held over dinner. In the storyboards, the interviewer ordered a glass of Merlot; some of the candidates ordered Merlot, the others Coke. "Managers viewed job candidates who ordered wine during dinner as less intelligent, and therefore less hireable," Schweitzer notes.

Despite the pervasive results, Schweitzer stops short of encouraging abstinence from alcohol. "There are other things alcohol can do," he points out. "Social bonding is really important.... The drawbacks are serious and important, but they don't tell the whole story."

Many years ago, Schweitzer conducted a study on the effects of alcohol on negotiations. In line with his current research, which often focuses on emotions, he is interested in studying other implications of alcohol use. "There is a lot of research on drinking and driving, drinking and risky sexual behavior, and drinking and aggression.... But in other domains, we know surprisingly little about alcohol's effects," Schweitzer says. "We consume casually and haphazardly, but should think about it more strategically and deliberately because it has costs and benefits."

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