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Dear Readers,

This winter issue of the Rady Business Journal marks the first step in what we expect will be a long and sustained improvement campaign — a campaign that relies on a number of changes.

The most obvious change is expressed by this issue’s very existence. For the first time in its young life, the Rady Business Journal is publishing two issues during the same academic year. The next issue, slated for June, will contain more words, more articles, and more pages — a result that will more than double last year’s production.

Over the past nine months, we have sought to focus the journal’s voice. We created new expectations for our contributors. Most important, we aimed to impact the San Diego business community with the same force that the Rady School has brought since the school’s founding 10 years ago.

To that end, we have codified an editorial focus on research and analysis. The journal will address trends and discoveries that stand to influence managerial decisions. We have also solicited op-ed pieces from leaders whose real-world experience can supplement our academic focus.

The theme of this issue, ethics, aligns with our desire to position the journal as a key resource to local business leaders. Thanks to evolving consumer preferences and changes in global regulatory structures, ethics is and will continue to be a key driver of success or failure for businesses of all descriptions. Our reports address the theme as it pertains to activities as varied as the short-selling of stocks to the operation of private prisons and the economic valuation of human tissue samples.

We view this issue as a single event in the publication’s long-term evolution. Our belief in the journal’s potential drives us to look ahead to yet further improvements. In the meantime, we hope you enjoy what we have done so far.

Thank you,
The Rady Business Journal Staff
It seems particularly timely for the Rady Business Journal to devote an issue to the topic of ethical behavior in organizations. In today's corporate world, the landscape is littered with examples of self-serving, irresponsible behavior — Enron, British Petroleum, big banks, and investment firms, to name a few. The nonprofit sector is hardly immune. The sexual abuse crises involving Penn State University, the Catholic Church, and the Boy Scouts of America provide vivid examples of the lack of effective, ethical leadership.

A defining moment in the history of any organization is how it responds to a highly visible crisis that causes serious harm to individuals or communities. In today's environment of 24/7 communication and global transparency, the need to be prepared and to act quickly, ethically, and effectively is essential. Organizations must balance their own interests with the public interest, and when in doubt, the public interest should prevail.

The current era of crisis management probably began in 1982 when Johnson & Johnson was confronted with several deaths resulting from Tylenol capsules that had been tampered with and contained poison. James Burke, the company's chairman and CEO, promptly ordered that all Tylenol be removed from store shelves to reduce the risk of additional harm. This was despite a large short-term loss in revenue.

Duane Roth, the president of San Diego's CONNECT, worked at Johnson & Johnson then and vividly recalls Burke saying that he was never in doubt about what to do because the published values statement of the company was exquisitely clear that the well-being of customers came first. By acting in the public interest first and visibly so, the company survived the crisis and subsequently received many accolades for its ethical action.

Imagine if the leaders at Penn State had acted in a similar fashion and put the well-being of the young men who were potentially harmed ahead of their concern about the reputation of a long-standing head football coach and a successful program that made money for the university. How differently would the public regard the organization and its leaders today?

In my 45 years in health care, including 26 as president and CEO of Rady Children's Hospital, I have been involved — not surprisingly — in a few serious adverse events that became public. In each case, our fundamental commitment was to our patients and families first and our staff and community second.

In each case, we provided prompt and proactive communication in a transparent fashion internally and externally. We balanced transparency with the privacy concerns of patients, families, and staff. In addition to our statements, we shared our honest feelings of sadness, empathy, and outrage. I will always remember one press conference that we held where about half of the members of the media in the room shared in our tears. As a result of our approach, we received an outpouring of community support, sustained philanthropy, and several awards from the media for honesty and transparency.

In today's Internet era, the public increasingly expects transparency and wields greater power through social media. As a result, some of the old rules no longer apply. For example, overly protectionist legal and media advice may often be bad advice. Studies show that prompt, appropriate public disclosure and apologies often decrease, rather than increase, legal and financial risk.

Today, organizations need to develop a comprehensive crisis management plan. It must be based on a “just” culture and not a “blame” culture. When a crisis occurs, visible CEO and senior leadership involvement is essential. Leaders must put aside their calendars and involve all stakeholders around the clock while fully collaborating with all relevant agencies. They must own the problem themselves and be cautious of delegating media leadership to an outside firm.

A comprehensive plan must include agreements with legal counsel and insurance carriers about the philosophy, values, and approach that will be followed. Effective media training is essential. Communicating with the media is a learned skill, and organizations should identify in advance who will speak on their behalf on which topics and then prepare them to do so. This training should include specific skills in how to communicate in a crisis.

Personally, I never said “no comment” to a media request. I did say very specifically what we could say, what we could not, and why. Timing and speed of communication is critical. I always believed in being proactive, not reactive, to issues.

The Institute for Healthcare Improvement has developed an excellent white paper titled “Respectful Management of Serious Clinical Adverse Events” by Jim Conway, Frank Federico, Kevin Stewart, and Mark Campbell. While focused on health care, its organizational assessment checklist provides an excellent framework for any organization to use in developing a plan. I highly recommend it.

I have always been impressed that the mission statement of the Rady School is “to educate ethical leaders for innovation-driven organizations.” In addition, one of the school's five core values is integrity. I hope that all Rady graduates will help lead us into a new era of corporate integrity and ethical behavior. Our customers deserve it, and our nation will benefit from it.

Blair Sadler is a senior fellow at the Institute for Healthcare Improvement. He is an associate clinical professor at the UC San Diego School of Medicine and an executive in residence at the Rady School of Management. He served as president and CEO of Rady Children’s Hospital in San Diego from 1980 until 2006.
Are Short-Sellers Really the Bad Guys?

by Joseph Engelberg, Faculty

With crises come blame, and following the 2008 financial crisis, there has been plenty of blame laid at the feet of short-sellers. It did not take long for regulators to pass judgment on these traders. In the midst of the crisis, short-selling bans were implemented in the U.S., the U.K., Japan, Canada, Spain, Australia, France, Germany, Italy, Belgium, Greece, Ireland, the Netherlands, and South Korea. And around the world, the heavy scrutiny continues to this day.

What is it about short-selling that attracts that level of condemnation? For starters, a short-seller in the stock market sells something he does not own. He does so by borrowing a share from a third party and selling it to a willing buyer. If the share price declines, he can buy back the share and return it to the lending party. If the short-seller sells at $15 and buys back at $10, then he makes a profit of $5 (less any transaction or borrowing fees). The bottom line is short-sellers profit when stock prices decline — a simple fact that has led to a lot of trouble for them.

Ask your grandmother what she thinks about a person who profits from someone else’s failure. Chances are, she will not think highly of him. By betting against companies, short-sellers are often labeled as unethical and un-American. In “The Bear Book,” John Rothchild writes, “Known short-sellers suffer the same reputation as the detested bat. They are reviled as odious pests, smudges on Wall Street, pecuniary vampires.”
A short-seller’s most vocal opponents are the CEOs of companies that he bets against, and it’s easy to see why. Stock prices reflect the views of those who trade. If a trader has positive views about a company, he will buy shares of its stock and push up its price. Traders with negative views sell and push down prices. So you can think of a stock price as being set by the weighted average of traders’ positive and negative views.

This is why restrictions on short-sellers — who have negative views — often lead to higher stock prices, which CEOs like. According to a recent study,2 CEOs have tried a variety of tactics to oppose short-sellers, including asking shareholders to withdraw their shares from the lending market, hiring private investigators to investigate short-sellers, and hurling insults. During a long-standing battle with short-sellers, Overstock.com CEO Patrick Byrne once called a short-seller who bet against his firm a “Sith Lord” and “a master criminal.”3

When anti-shorting sentiment becomes strong enough, it makes its way to politicians and regulators, as in the case of the recent crisis. In the 1980s, a wave of anti-shorting sentiment led Congress to hold hearings about the practice. During those hearings future Speaker of the House Dennis Hastert described the practice as “the most blatant thuggery we’ve had come before this committee in a long time.” As evidence of the damage done by these traders, officers from three firms that were targeted by short-sellers testified about their experiences at the hearing. Ironically, two of the three firms’ presidents were charged with fraud by the Securities and Exchange Commission.

Despite the bluster about short-selling and the actions by some regulators, academics have long thought about whether short-selling should be prevented. As a logical matter, disallowing the negative information that short-sellers have from entering prices is not good for an economy. As an illustration, think about a company with a new technology and a share price of $100. Suppose there are smart traders who know that the new technology is worthless and that the share price should be $0. In a well-functioning market, these traders will short-sell the company’s stock and push its price toward zero.

These traders incorporate their information by trading; without them, the share price may stay at $100. Now imagine that the company issues a million new shares in order to expand its business. Because the share price is currently $100, new shareholders will pay $100 x 1 million = $100 million for these shares. In short, the economy has allocated $100 million in resources to a technology that is worthless. If prices were correct, this misallocation of resources would not have happened. Because short-sellers help keep prices correct, they effectively help allocate resources properly in an economy. More generally, short-sellers who sniff out wasteful managers, inferior technologies, ineffective drugs, and fraudulent accounting reduce our economy’s allocation to these duds and save it for worthier endeavors.

A short-seller who fraudulently spreads false negative news about a firm is just as pernicious as a buyer who spreads false positive rumors about a firm. Fraud is the problem — not short-selling.

Recently academics have studied many of the countries that banned short-selling during the financial crisis and found that the ban had a detrimental effect on the liquidity and informativeness of banned stocks.4 Taken together these studies paint a picture of short-sellers as skilled information processors and that when we prevent them from participating in markets, those markets can become less liquid and prices in those markets can contain less information. These facts should give regulators pause about indulging in short-selling stereotypes when setting policy.

Joseph Engelberg is an assistant professor of finance at the Rady School of Management. His research focuses on the way information is disseminated among market participants, especially by financial media and social networks.

Endnotes
Men are more likely to own risky stocks. They are more likely to choose competitive careers. And they are more likely to bargain aggressively for their starting salaries. The evidence is overwhelming: In virtually every setting ever studied — in laboratory experiments where people choose between gambles and empirical studies where retirement funds or career choices are analyzed — men take more risk than women.1,2

We know, we know. All of us are brought up to believe that men and women are the same, and we want them to be the same. But at least when it comes to taking risk, men and women are not the same.

This is not to say men are better. On the contrary, taking risk can be quite stupid. Men may own more stocks, but they are also more likely to die in a car accident while speeding in the Ferrari they bought with their stock-market earnings. They may choose competitive careers, only to find themselves paralyzed pursuing their ridiculously competitive hobbies. But risk does come with rewards: Stocks have higher average returns than bonds, and competitive jobs can be quite lucrative. These rewards make gender differences in risk preferences one of the pre-eminent causes of gender differences in the labor market, and these differences are enormous: Despite their higher likelihood of attending college or receiving an MBA, women still make 77 cents to the male dollar, make up 4.2 percent of CEOs at Fortune 500 firms, and are only 19 percent of the STEM (science, technology, engineering, and mathematics) workforce, and as you already know if you are reading this article, fewer women get MBAs.3,4,5,6

That's it? So we can fix labor market disparities by merely training women to be as risk-taking as men? That's great! Bring the girls to the boxing match; take them to see James Bond movies. Hell, take ’em to Vegas. We will close the wage gap by Easter, or at least by the time we have socialized a new generation of women at the blackjack table.

Well perhaps not quite by Easter, and perhaps not at all. What if women are just inherently more level-headed than men? Could it be?

Yes. For starters, humans certainly would not be the only species for whom that is true. Indeed, it turns out males take more risk than females in nearly every sexually reproducing animal. Male ants, male deer, and male baboons — they are all more likely to risk life and limb to procure resources such as food or mates than their level-headed female counterparts. There is a good evolutionary reason for that: Males have more to gain and less to lose from risky behavior. Namely, when males take on extra risk in foraging for food, ousting rivals, and fighting over territory, they are rewarded with dozens, even hundreds of mates, and many, many babies. A worthwhile gamble! Not so for the females. Those females who take

The risks of avoiding a debate on gender differences

An unflinching look at these differences offers insight into tackling labor market disparities

by Moshe Hoffman, Postdoctoral Scholar, and Erez Yoeli, Lecturer
the same risks do not benefit as much from the increased mating opportunities, as they are more limited in the number of babies they can have. One more? Two more? Not worth the gamble.6,7,8,9

The evidence for this theory is strong and growing stronger. In animals, we see sex differences in risk preferences covary with the degree of polygyny and reverse in species where males invest more in parenting. Anything to the contrary would have refuted the theory — but the evidence from animals lines up perfectly. What about us humans? Well, the evidence is there for humans, too: There is a strong correlation between various risk preferences and various measures of testosterone at various stages of development, including measures that are fixed at birth, before socialization could play a role; again, the opposite result would have refuted the theory, but we found exactly what one would expect if sex differences have an evolutionary basis.10,11

Are you kidding? You cannot be serious with all this talk of sex differences and evolution? Didn’t you hear about Larry Summers?

Oh, believe us, we know, and we do not blame you for being concerned. It makes sense to be wary of combining evolution with any kind of group difference, such as differences between men and women, because historically these were used to discriminate against some groups, in some cases leading to horrific treatment. But unlike, say, the Nazis, we are not using evolution to argue that one group is better than the other. We have not said that men evolved to be better because they take more risk or even that they have evolved to be better at assessing risk. We have argued they have evolved to like taking risk more. This is about preferences, not abilities. With caution, by incorporating what we know about evolution, we can hopefully address feminist issues in a scientifically sound and constructive manner.

How so? If natural selection has something to do with sex differences in risk preferences, then socializing boys and girls the same is unlikely to obliterate the differences in risk preferences, let alone wipe out the wage gap or shatter the glass ceiling. Instead, perhaps, what we ought to be doing — those of us who care to reduce gender differences in the labor market and wish to harness our knowledge of the role of evolution — is evaluating labor market practices to make sure they do not needlessly reward risk-taking. Is it a coincidence that up-or-out promotion structures, which disparately and negatively impact women because of natural differences in risk preferences, are ubiquitous in precisely those fields in which women’s scarcity is lamented, for example, law firms, academia, and the military? Why does UC San Diego make pay increases contingent on obtaining outside offers? Why do firms make promotions contingent on management of one large project rather than success on a series of smaller ones? Are these policies worth the inadvertent sexism they cause? Is there no alternative? These are the questions we need to ask if we wish to close the wage gap and shatter the glass ceiling. It’s time we acknowledged inherent differences between men and women and used our understanding to improve the labor market for everyone.

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Endnotes
Over the past decade, companies’ desire to become more environmentally friendly has grown. For example, California-based Kendall-Jackson Winery has chosen to purchase all of its power through renewable energy sources. Not only are the business operations run on renewable energy, but the winery also purchases 100 percent renewable energy for the homes of all of its employees. This is a first for any company and has earned it an EPA Green Power Leadership Award in 2011.¹

Kendall-Jackson Winery accomplishes this through the use of renewable energy credits (RECs). A REC is a certificate that represents one megawatt-hour of power generated from a renewable source. For example, when the wind farm near Ocotillo, Calif., produces a megawatt of power, the electricity goes into the grid, and a REC is created for the owner of the wind farm. Because the electrons generated by the wind farm mix with other electrons on the grid, it is impossible to say which source is powering a building. A REC tracks the date, source of power generation, and location of the generation. This is done so that RECs can be accurately tracked and accounted for when used. These certificates are used to determine if individual states are meeting their renewable portfolio standards. By law, California must purchase 33 percent of its power from renewable sources by the year 2020 and measure progress toward that goal.²

The first RECs in the U.S. were issued in 2001. In 2007 the Western Renewable Energy Generation Information System developed the REC tracking system to help monitor the use of RECs.² There are two primary types of RECs: bundled and unbundled. A bundled REC is a REC combined with credit to the entity generating the power. A bundled REC cannot be bought or sold, and only the party that generates the electricity can use the certificate. In 2010, California passed a law permitting unbundled RECs to trade on the open market.³ An unbundled REC breaks the bond between the power generator and the REC. This allows the power generator to trade RECs to a third party. Once the REC is unbundled, a company or individual can purchase it to help offset power generation. Utilities in California can purchase RECs to meet up to 25 percent of their required renewable portfolio standards. That amount decreases to 10 percent in 2017.⁴
Why Purchase RECs

The idea to spend additional cash to procure power from green energy sources may not make sense for all entities, but more and more are making the choice to do so. Many small-business owners and individuals purchase RECs to offset their energy costs for about $2 per REC on a purely altruistic basis. There may be no tangible effect on the bottom line, but owners see their businesses as a reflection of themselves and what they stand for. More commonly, small businesses buy RECs to promote their “green” brands. For many owners, the additional cost of purchasing RECs is viewed as a marketing cost. Many organizations help business owners decide if purchasing RECs will help their businesses.

As part of the Environmental Protection Agency, the Green Power Partnership (GPP) helps to build a network of entities that are dedicated to using renewable forms of energy. The program is a free voluntary partnership that aims to promote green energy leadership. It maintains a list of the various-sized businesses; local, state, and federal governments; and colleges and universities that have met the requirements to be part of the GPP. To become a member, companies must meet a minimum requirement of power procured from green energy sources. This can be done through on-site generation or through the purchase of RECs. With 7.8 percent of the city’s power coming from green sources, San Diego is a member of the GPP.

Blaine Collison, program director of the EPA’s GPP, said in a recent interview that publicly traded companies have “fiduciary obligation; it is the law that they maximize shareholder return. That’s supposed to be the basis of their decision making, so altruism is out the window.” Collison added, “They might be doing it for reputational reasons, or branding reasons, but not altruism; altruism is illegal.” Yet some publicly traded companies do buy RECs. This begs the question: In what way do RECs contribute to the bottom line?

One example of a publicly traded company that purchases RECs or generates green energy to offset 100 percent of its energy consumption is Kohl’s. Collison went on to add that “(Kohl’s) is a publicly traded, for-profit retailer. Retail is characterized by pretty thin margins. Kohl’s is the second- or third-largest user of green power in the entire U.S. economy.” As a retail company with lower margins, Kohl’s has found a way to justify the purchase of green energy at a premium to power its stores. This is based on a belief that the purchase of RECs improves Kohl’s overall functionality as a company.

One argument to be made against the purchase of RECs is that it actually hinders additional green energy generation. If a school or business can offset its energy consumption by buying green energy credits, there is no incentive to spend the capital to build additional renewable power stations. If entities can realize the benefits of using green energy without having to actually build a plant, green energy production will be slowed. This logic is misguided because the primary purchasers of RECs are not in the energy business or capable of constructing large-scale renewable energy sources. RECs are not intended to fully fund capital-intensive green energy installations.

One of the most positive signs in the voluntary REC market is the growth. Organizations promoting the purchase of RECs are growing in size and influence. GPP has seen both growth and high levels of retention with its program. In addition, the volume of voluntary REC purchases is steadily increasing and is expected to continue on this path. As awareness and availability of RECs grows, the demand may continue to increase.

There is no one specific reason to purchase RECs. The reasons vary from small-business and individual altruism to a large company’s strategic goals. Whatever the reason, more and more businesses are choosing to purchase their power from renewable sources. With the help of public-private collaboration and continued innovation, renewable energy will continue to thrive.

Andrew Zorbo (Full-Time Class of 2014), whose background includes positions in quality control and engineering, focuses on innovation, entrepreneurship, and renewable energy resources.

Endnotes
3. LGC Consulting. 2010. “California PUC Authorizes the Use of Unbundled RECs to Meet RPS Requirements.”
Since 2011, the world has been closely watching a small nation in southeast Asia emerge from decades of economic sanctions and military rule. Formerly an outcast state, Myanmar appears to be on a steady path toward rehabilitation and economic development. The opportunities for foreign investment are plentiful in a country with a 2010 per-capita gross domestic product of $876. But the unique conditions on the ground may challenge basic assumptions about investing in emerging markets.

Myanmar has only recently earned the label “emerging” after significant reforms, starting with the installation of a democratically elected government in March of 2011. A few months after being sworn in as the president, Thein Sein invited opposition leader Aung San Suu Kyi to get involved in rebuilding the country. New labor laws were passed and censorship laws were abolished. Taking note of these positive changes, the European Union suspended all nonmilitary sanctions against the nation for one year in April of 2012. A few months later in July, President Barack Obama eased sanctions to allow U.S. companies to invest in Myanmar, a major development.

On Nov. 2, 2012, Sein signed a new law designed to address the demands of local and foreign investors. Seventeen days later, Obama made history when he became the first sitting U.S. president to visit Myanmar. He traveled to the city of Yangon to announce that the U.S. stood ready to help the people of Myanmar as they emerge from decades of isolation. While political leaders set the stage for change, members of the business community began their research.
A Complex Picture Surfaces

Since the installment of the new government, various foreign investment groups have held conferences and summits to explore business opportunities in Myanmar. One of those early-bird investors was from a Hong Kong real estate investment firm; his objective was to buy land and buildings. He believed that prices would only go up when the economy started booming. However, he was disappointed to learn that real estate prices in Myanmar were not as low as he had expected for such an isolated country.

Even though there had been economic sanctions from Western countries, Myanmar had long been doing business with neighboring Asian countries. According to a 2010 Eurostat report, China, Thailand, and Singapore represent 75.1 percent of total imports for Myanmar while China, Thailand, and India represent 69.7 percent of total exports. Overall, those four countries represent 75.3 percent of foreign trades in Myanmar. Given this reality and the fact that political unrest was limited to border areas, major cities in Myanmar have seen significant economic development even though it may not be substantial compared with other countries’ levels.

Another layer of context to consider is the past volatility of Myanmar’s currency, the Kyat (MMK). In 1952, one U.S. dollar was equivalent to MMK4.74; in 2000, it equaled MMK344, and during the most recent political crisis in 2007, it was equal to MMK1,350. The Kyat had a compound annual inflation rate of 21.57 percent for seven years. Meanwhile, the official exchange rate has been one dollar for about MMK6. While the price of gold reflects the global gold price through the exchange rate, the prices of real estate have been protected from dramatic movements in the value of the currency, many local investors have bought gold or real estate to hedge against inflation.

While the price of gold reflects the global gold price through the exchange rate, the prices of real estate have been protected from such foreign influence until now.

Within the local real estate market, property prices vary because of the state of the nation’s transportation system, which is considerably underdeveloped. According to a report from the Asian Development Bank, the overall road density for the Association of Southeast Asian Nations is about 11 kilometers per 1,000 people, while Myanmar’s is about 2 kilometers. When it comes to vehicle density, Indonesia has about 250 vehicles per 1,000 people, while Thailand has about 370; the equivalent figure for Myanmar is just 18. As a result, prices within a city zone are much higher compared with those in the outskirts.

Big Cities, Huge Price Tags

Real estate in the most expensive areas in Yangon, the biggest commercial city in Myanmar, costs as much as $1,860 per square foot of land. In comparison, the most expensive property listed in La Jolla, Calif., in November of 2012 is $34,000,000 for a 28,749-square-foot lot — in other words, $1,183 per square foot. Who would think that an underdeveloped country like Myanmar would have property more expensive than one in San Diego? And it’s not just that one property; there are multiple properties in Yangon in that price range.

In a regional comparison, a house in Singapore with 26,456 square feet of land is listed at $50,000,000 ($40,816,326) with a per-square-foot price of $1,542.80. Myanmar’s estimated GDP in 2011 was $51.9 billion, while Singapore’s GDP was five times that of Myanmar’s, at $259.8 billion. Singapore also happens to have the most expensive real estate market in the world. Given the difference in GDP, the size of the countries, and the land available for real estate development, the property prices in Yangon are very expensive.

After Yangon, the second-largest commercial city is Mandalay, where a 2,400-square-foot, two-story building is listed at $3,139,534. It is just one of thousands of houses on major roads in Mandalay. Because there is no separate zoning for commercial and residential areas in most cities, houses in good locations can be bought or rented as offices or factories. In particular, properties on major roads are popular among big companies looking to open offices and therefore two to three times as expensive as those on the side road, around the corner, even though they are in the same community. In places that lack adequate transportation and are far from popular areas, prices can be as low as $10 per square foot. For example, a 2,000-square-foot house is listed for $21,176 in Thanlyin City, near a major port city.

One interesting fact is that the price of the property is predominantly the price of the land. The building price is negligible in most cases. Nice buildings may attract higher prices, but they are valued by the per-square-foot price of the building cost, and most of the time, their values are insignificant compared with the value of the land. There are too many idiosyncratic elements with each property, so there is no clear way to come up with an average selling price for a community. Moreover, no real estate price index or official sales statistics exist in Myanmar, but it is possible to discover an overall trend of rising prices in the market.

Pricing of Rents

With the ever-increasing price of properties, landlords are not seeking as much return from rent as they would from other investments. For example, deposits in savings accounts provide a minimum interest rate of 8 percent per annum, but the return from rental properties is much lower. A 2,300-square-foot furnished apartment near major roads has a selling price of MMK600,000,000 ($705,882) but a monthly rental price of MMK2,000,000 ($2,350). That’s just slightly higher than a 3 percent annual return. Landlords are just hoping to get some extra income while the property value appreciates.

As a result, rents in Yangon and other cities are not expensive compared with the selling prices. Unlike with sales, the condition of the building determines the monthly rent. For example, in downtown Yangon, the rent for a new seven-story apartment building, with 1,250 square feet per floor, is listed as $5,882, or $840 for each floor. In San Diego, a 1,250-square-foot apartment would go for $1,500 to $2,000, depending on the location. An apartment of similar size in the same neighborhood in Yangon may only be rented for $300 if it’s in an old building. Overall, the significant disparity between interest rates and return on rental properties creates an expectation for future price corrections for these residential/commercial properties. When it comes to pricing industrial land, a similarly complicated picture emerges.
Industrial Land Use

According to a Center for Strategic and International Studies report on land issues in Myanmar, two-thirds of the population relies directly or indirectly on agriculture, a reality that raises ethical concerns about uses of land for other purposes such as mining or factories. There have been protests from farmers who have lost their land to industrial use. In order to prevent such conflicts, industrial zones may need to be developed in areas that may not be ideal.

Sales prices for industrial land range from $147,200 per acre to $1,680,000 per acre in the industrial zones near Yangon. In San Diego County, the asking price for a plot of industrial land was $308,000 per acre in November of 2012. In Myanmar, location is even more important for industrial properties because of the high cost of transportation. For example, the cost of shipping one 40-foot container from Thilawa port to Singapore is $150, while the cost of transporting that container from Shwe Pyi Thar industrial zone, located west of Yangon, to Thilawa port, east of Yangon, is MMK250,000 or $294. As a result, monthly rents range widely from $336 per acre to $22,000 per acre.

Of course, in the search for industrial land, the availability of electricity cannot be taken for granted. According to the Asian Development Bank, only about 26 percent of Myanmar’s population had access to electricity in 2011, and that includes access to off-grid supply sources. A government corporation owns the electricity grid, and since it cannot provide enough power to factories, most businesses run on their own power generators. That reality leaves them vulnerable to the following market conditions: The majority of gas and diesel is imported, and the price of fuel is high. Even though the country produces natural gas, it cannot widely use it since the country produces natural gas, it cannot widely use it.

Changing Landscape

In Myanmar, new cities are also being developed with new business zones. For example, Yadanapon Cyber City, located 41 miles east of Mandalay, has been established as the biggest information technology park in the country, with housing projects being developed nearby. The introduction of new businesses could also bring prosperity to existing, underdeveloped cities. For example, a deep-water port that Italian-Thai Development Public Company Limited plans to build could bring new businesses to the Dawei area in southern Myanmar. Those new businesses could change the balance of real estate prices in different parts of Myanmar.

The unique conditions that protected property prices in Myanmar may no longer hold as the country transitions out of its status as a closed economy. While these prices had been in the up trend for a long time, unaffected by global financial crises, they may not keep increasing in the future since outside investors can now make comparisons between properties in Myanmar and those in countries such as Laos, Thailand, and Vietnam. And local investors who bought properties as a hedge against inflation could start selling them if the currency stabilizes and there are more business opportunities that provide better returns. However, the market may not crash if the demand for real estate stays strong because of an influx of foreign businesses. Economic development could bring balance in real estate prices and overall exposure of Myanmar to the outside world (and vice versa). One thing is certain: The world is witnessing a unique moment in time for this budding economy.

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Endnotes

Note: Exchange rates of MMK850 per $1 and $1.225 per $1 are used for this article.
Industry Analysis: The Sources of Profit for San Diego’s Privatized Prisons

by Elizabeth Liner, MBA ’13

While the rest of America has been mired in economic volatility, the prison-building industry has been holding steady. As of 2011, the U.S.’s correctional system incarcerates one of every 107 adults¹ and contains the world’s largest prison population.²

With an in-prison population of more than 133,000, California has the nation’s third-largest number of people incarcerated. This population size, compounded with a 65.1 percent recidivism rate, has led to huge overcrowding in California prisons. Consequently, courts have ruled that the state failed to deliver adequate mental or physical health care to the prisoners. In an effort to address overcrowding, in 2011 the U.S. Supreme Court upheld a three-judge ruling³ that California should reduce the prison population to 137.5 percent of capacity by this June. In response, the state passed Assembly Bill 109, giving local governments more responsibility for an estimated 30,000⁴ lower-level felons slated to be transferred into local jails. However, these local facilities are already operating at full capacity.

Renewed legal attention to prison overcrowding has created an opportunity for the for-profit prison industry to unburden local government institutions, as the industry has gained momentum over the last 30 years since the first private prison contract was awarded in 1985.

These numbers are still increasing. From 2000 to 2005, an additional 151 prisons were built nationwide, growing the total number of prisons to 415. As of 2005, private prisons accounted for 23 percent of penal institutions and housed approximately 7 percent of the nation’s average daily prisoner population. Most were under contract to the Federal Bureau of Prisons.
In California, the prison inmate population decreased by 27 percent from 2000 to 2005. However, the number of prisons rose 8 percent, and the confinement center — a set of institutions that includes “prisons, prison farms, penitentiaries, correctional centers, work camps, and reformatories” — saw a 74 percent spike from 50 to 87 facilities.

In particular, Corrections Corporation of America (CCA) has become the market leader for for-profit prisons, owning and operating 65 facilities in 19 states. Capturing 44.3 percent of the market in 2011, CCA earned $1.7 billion in revenue. It had assets exceeding $3 billion and net income of $162.5 million.

In San Diego, approximately 11,896 prisoners account for 7.3 percent of the overall state prison population. For the last decade, CCA has held contracts to operate the San Diego Correctional Facility, located in East San Diego County in rural Otay Mesa. As one of four correctional facilities in the area, CCA’s Otay Mesa location, run by Warden Fred Lawrence, operates as an all-male, minimum-to-medium-security prison. The facility has 1,154 beds, which helps to alleviate the overcrowding of low-level offenders from the nearby Richard J. Donovan State Correctional Facility and the George Bailey Detention Facility.

CCA has also sought validation for many of its sites, including the San Diego facility, by obtaining American Correctional Association (ACA) accreditation to promote a national and international image of authority for corrections. While the ACA is a nonprofit government institution, the accreditation process is completely voluntary and does not pose a barrier to entry. But CCA does invest in this accreditation process such that 90 percent of its facilities have received accreditation. Overall, 749 public and private prisons and jails have been accredited through the ACA.

**Buyers of Prison Services**

CCA attributes its success to an ability to obtain large government contracts. According to CCA’s 2011 annual report, the U.S. Marshals Service and Immigration and Customs Enforcement (ICE) together accounted for 32 percent of total revenue. These federal agencies have their own separate $240 million budget for detention and deportation; under the federal State Criminal Alien Assistance Program, $96 million goes to California.

With a steady stream of illegal immigrants, CCA has benefited tremendously from this partnership with ICE. The San Diego Correctional Facility, in operation since 2000, is no exception. ICE pays CCA’s San Diego facility a per-diem fee of $89.50 for every person held there. In 2008, a Syracuse University report indicated that at least 4,201 detainees were transferred by ICE from the San Diego facility in Otay Mesa, staying for an average of 11 days, a single action that translates into $4.1 million in additional revenue for CCA. With $1.7 billion in total revenue and 65 locations, CCA earns $28 million per location annually. Although the facility’s current capacity is only 1,150 beds, a newly planned facility would have 2,880 beds, doubling capacity.

Meanwhile, California currently spends $285 million on contracted facilities. However, in June of 2012, California announced that the state will not be renewing its contracts with CCA when they expire in 2015-2016. As a result, CCA had to renegotiate a reduced prison contract for the upcoming 2012-2013 fiscal year. In previous years, the state has had very little buyer power. However, by reducing its annual inmate prison population and meeting the three-judge ruling, the state is now no longer dealing with as many capacity constraints and is regaining control as a buyer.

**Barriers to Entry: Zoning**

Meanwhile, ICE is CCA’s primary contractor for San Diego. Under the provisions of the company’s ground lease with the county of San Diego, ownership of the site will revert back to the county on Dec. 31, 2015. Thus, the corporation will need to build a new facility by 2015 if it wants to keep its contract with ICE.

Despite the uncertainty, CCA has decided to move forward with its plans to build a new mega prison in Otay Mesa, investing $44 million to buy real estate, conduct environmental studies, obtain building permits, and complete additional requirements. According to Rob Hixson, chairman for Otay Mesa’s Planning Group, the land itself was not zoned for prison use. CCA had to get the land rezoned.
While the cost to re-zone, according to the city of San Diego’s planning department website, is only $12,000, re-zoning creates the risk of community outcry and other negative stakeholder reactions. However, the location that the private prison corporation selects is crucial, Hixson explains; the property is still far away from residential units but still close enough to plug into public utilities. Thus far, there has been little pushback from any external groups. CCA estimates that the total construction cost of the new mega facility will range from $142 million to $150 million. Without a guarantee that it will be able to renew the existing ICE contract, this is a very risky decision for the company. To the extent that CCA has the capability to accurately assess and mitigate these risks, it carries a significant knowledge advantage over would-be competitors.

### Supplier Power: Unions

At the same time, a key supplier to the U.S. correctional system has been the California Correctional Peace Officer Association (CCPOA). The union represents 30,000 correctional peace officers working inside California’s prisons and in years past has been regarded as one of the strongest and most influential labor groups. California has the second-highest mean salary for correctional officers in the nation. There are a total of 42,410 correctional officers in California. According to the Bureau of Labor Statistics, California correctional officers have a mean hourly wage of $31.99 and an annual mean salary of $66,540.

This means with 33 state prisons, the California Department of Corrections and Rehabilitation (CDCR) spends approximately $2.8 billion on correctional officers alone. Nevertheless, CCA does not have the same pay rate as the CDCR, although it claims that it does not cut corners regarding treatment of its guards. As of 2011, CCA has approximately 16,750 employees. With $770 million of its operating expenses going toward salary and benefits to correctional officers (64 percent of its operating expenses) and adjusting for the 5 percent belonging to labor unions, the average compensation for a CCA employee in 2011 was approximately $45,000, which is comparable to the annual national mean salary of $43,760 at local, state, and government-owned prisons outside of California. CCA’s salaries are in the 10th percentile for California, and the company employs very few unionized workers, suggesting the company employs an advantage over a key supplier despite the presence of unions.

### Rivalry

Meanwhile, rival firms face similar industry trends. CCA’s main rival is GEO Group. The GEO Group also operates a facility in San Diego; the Western Regional Detention Facility has a capacity of 770 beds and contracts with the U.S. Marshals Service. Yet, the CDCR canceled its contracts with the GEO Group in 2011, and the state will not renew its contract with CCA after 2015. Both face diminished power to operate in California since the federal government will be the only customer.

### Conclusion

The for-profit prison industry has faced significant challenges over the past decade. However, as long as it is able to service the federal government through contracts with the Bureau of Federal Prisons, ICE, and the U.S. Marshals Service, the sources of profit for the private prison industry are stable. In September 2010, CCA was able to negotiate a 15-year contract at the California City Correctional Center (guaranteed 95 percent occupancy). Considering the high fixed costs involved in building prisons, the for-profit model still offers a promising way for government agencies to address immediate prison population issues. While there are still opposing forces, the most significant of which are government budget cuts, there are still a number of political drivers that are in play in favor of the for-profit prison industry. The recent upholding of the death penalty via Proposition 34 and the passage of harsher sentencing to human traffickers via Proposition 35 reveal the continued political appeal of legislation that is tough on crime. The private prison industry can remain profitable as long as it can continue to capitalize on the government as its main source of income. In the case of California and specifically CCA’s mega prison in Otay Mesa, once the mega prison is operational, securing another government contract will be essential for the firm’s continued presence in San Diego.

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Endnotes
7. Syracuse University TRAC (forthcoming)
Biotechnology researchers sometimes use human tissue samples collected from patients during necessary procedures to develop immortal cell lines. These cell lines are used in the research and development of drugs and other treatments for diseases. These immortal cell lines can be immensely profitable for their developers, but patients have not always shared in the wealth created with their tissue. The best-known case is that of Henrietta Lacks, the impoverished originator of the immortal cell line “HeLa.” Lacks’ tissue was obtained during her treatment for cervical cancer, and while she and her family struggled to pay for treatment, researchers have since made millions from discoveries developed using her cell line. Another case is that of Robert Moore, whose tissues were kept and developed after he underwent treatment at a University of California hospital. When Moore discovered that his tissue had been developed into a profitable cell line, he sued the UC system, but the courts ruled that he had no rights over his tissue once it was removed from his body. Subsequent cases such as Greenburg v. Miami Children’s Hospital have also granted the rights to voluntarily provided body tissue and genetic information to researchers and their employing institutions — not patients.
Whether the courts have correctly assigned property rights for human tissue collected during necessary procedures is a complex question that raises a host of issues and has no single right answer. In this article, we provide an analysis of the courts’ decisions from one very particular viewpoint — that of economic efficiency. We define economic efficiency as the allocation of resources that maximizes production of goods and services.\(^3\)

**The Coase Theorem**

Any economic analysis of property rights begins with the Coase theorem, the Nobel prize-winning work introduced in 1937 by Ronald Coase. Coase argued that as long as property rights are well-defined, all parties are equally and perfectly informed about the benefits from a transaction, and negotiation is not overly burdensome, it does not actually matter who holds the rights — the parties will reach an economically efficient outcome through negotiation.\(^3\) A simple fictitious example may help to clarify Coase’s insight.

The town of “Upstreamia” sits upstream of “Downstreamia” on a river in upstate New York. In the 1930s, Upstreamia had an active garment industry, and its factories would dump their industrial waste into the river to the serious detriment of the residents of Downstreamia. Cases of deformities and strange illnesses proliferated in Downstreamia until the town decided to take action and sued its upstream neighbors. The case ultimately boiled down to a question of property rights: Did Upstreamia have the right to pollute the river, or did Downstreamia have the right to a clean river? Obviously, the latter seems more fair. However, the Coase theorem teaches us that if we ignore fairness and focus entirely on getting Upstreamia to take the welfare of Downstreamia’s residents into account and not overpollute — that is, from the standpoint of economic efficiency — it does not matter how the court assigns the property rights as long as it does so in a clear way. If it grants the right to pollute to Upstreamia, Downstreamia will pay Upstreamia to abate its pollution, and if it grants the right to clean water to Downstreamia, Upstreamia’s factories will abate their pollution somewhat and compensate Downstreamia’s residents for what pollution they continue to emit. In the first case, Upstreamia’s factories are better off, and in the second case, Downstreamia’s residents are better off. In both cases, we achieve the optimal, reduced level of pollution. (The court, by the way, first sided with Upstreamia, then reversed the decision some years later after it was determined that Downstreamia’s pollution levels were within the bounds permitted by the newly enacted Clean Water Act.)

The Coase theorem appears to suggest that it does not matter whether we give patients or doctors the rights to patients’ tissue, but in fact it does exactly the opposite: It highlights precisely why correctly assigning property rights is crucial in this case. Let us reconsider the example of Upstreamia and Downstreamia. The key to an efficient outcome is successful negotiation of a settlement once the property rights have been assigned. This can only happen if both sides are equally, perfectly informed about the costs and benefits of reduced pollution, and if the costs of negotiation are small.

If both sides cannot agree on the costs or benefits of abatement, or if negotiating is prohibitively costly, then the towns might not reach an agreement. It is easy to see that in real life the conditions needed for the Coase theorem to hold are not always met, and negotiations break down even when it would be socially efficient to reach an agreement.

**Negotiations Break Down**

In the case of human tissue, the efficient outcome is for both parties to reach an agreement and for the tissue to end up with the researchers, since it has already been extracted and at that point the patient does not expect to incur further costs. The problem is that doctors and researchers have substantially better information about the potential value of the tissue, and it is difficult for them to credibly convey this value to patients. Doctors also have an incentive to downplay the potential gains from the tissue during negotiations so that they avoid paying a high price for the samples. Recognizing this, patients might not agree to small payments even though there is no cost to them to provide their already extracted tissue, in hopes of holding out for higher payments. Because the value of the typical tissue sample is actually quite low until it is developed by researchers, in many cases researchers would refuse to make higher offers, and no trade would occur.

By assigning the property rights to the extracted tissue to researchers, the courts have eliminated the possibility that negotiations will break down and ensured that the tissue will end up with the researchers. This solution may not be fair to patients, but it is simple and socially efficient. Until other alternatives develop, we can at least be satisfied that the courts have implemented a socially efficient solution — one that puts tissue to the most economically productive use.

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In his influential book "The World is Flat," New York Times columnist Thomas L. Friedman credited technology with a "flattening" of the economic landscape. Innovations like the Internet were making it virtually costless to transmit information, allowing people located across the world to communicate as though they were across the room. This transformation, Friedman argues, would eventually render physical distance (if not borders) irrelevant and, in so doing, redefine the concept of location — one based less on geography and more by position in a global lattice of information.

Perhaps the greatest strength of Friedman’s claim is its intuitive appeal. In my own work, email has reduced the cost of collaborating with co-authors from New York, Montreal, or Sydney to a few extra keystrokes. And how many of us have used Skype, Facebook, Twitter, or similar outlets to keep in touch with faraway friends and family? Even romance, presumably the least likely human activity to relinquish the face-to-face meeting, has partly surrendered. Dating websites such as match.com help electronically fan the flames of desire, while others (see, for example, www.idump4u.com) extinguish them virtually.

Yet, the main challenge facing the “flat earth” view is the evidence itself. Instead of geographical location mattering less, it seems to be mattering more. In developed economies, approximately four-fifths of people live in urban centers, up from 52 percent in 1950. The trend in developing economies is even stronger, with fewer than 18 percent inhabiting cities in 1950, compared with almost 50 percent today. Projections suggest that by 2030, less than two in five people will live outside a major metropolitan area.1 Mirroring trends are seen for firms, with increasing numbers, particularly those in high-tech industries, moving to urban centers such as Los Angeles’ "Silicon Beach" or London’s "Silicon Roundabout."

The obvious question: When technology allows firms and people to spread out, why do they nevertheless prefer to squish together?

It turns out that the answer predates the Internet by more than a century. In 1890, English economist Alfred Marshall formalized the concept of “agglomeration externalities,” a mouthful for the simple idea that packing businesses and people in a tight location creates synergies. A good example is the formation of local labor pools. If you own a software company, it’s pretty clear that the Bay Area is a better place to look for workers than Indianapolis. Partly this is because high-quality educational institutions like Stanford and UC Berkeley pump out class after class of bright students. But another part of the story, and the one particularly interesting to economists, is akin to dating: Even if you are currently in a relationship, there may be benefits to living in a city with lots of other single people, just in case it does not work out.

Indeed, companies view the workers of local rivals as opportunities and also understand that their own — especially the best — are constantly being wooed. Over time, so goes the theory, firms and workers are more likely to successfully “match” when an area contains lots of both. Better matches in turn generate higher productivity and happier workers, creating a positive feedback cycle as more workers and firms move to the area. Together, this implies that cities are likely the best places for most workers to develop: Not only are their chances for simply finding employment the highest, but the prospect of finding quality jobs that also suit their skills seems to be the highest in dense industrial clusters.
And once quality workers flock to a city, additional dynamics come into play. One is that ideas tend to flourish when lots of smart people are batting them around. No matter how brilliant initially, virtually any idea improves with feedback, and cities offer the interactions required for such honing to occur. Consistent with this logic, innovations are disproportionately created in a stunningly small number of locations. For example, in 2002, about 85 percent of worldwide patent activity came from just five countries (Germany, Japan, South Korea, Russia, and the U.S.), and within each country, virtually all the activity came from urban centers. While it is recognized that workers with a high capacity for innovation may find cities attractive in the first place, economists generally agree that once they arrive, their natural abilities are enhanced even further by the interactions cities afford.

Insights like these have led to a mini-revolution in how we understand cities and, consequently, how we can plan for their growth. Gone are the days when geographical features such as waterways (e.g., St. Louis or Buffalo) were the dominant consideration for a city’s health or even existence. Instead, cities are now being modeled as quasiliiving organisms, with the most important ingredient — their lifeblood — being people and their ideas. Accordingly, urban planning is increasingly focused on designs that maximize interactions among residents in hopes of attracting innovative types and then making the most of their gifts.

This paradigm shift offers some practical takeaways. First, a city’s “vibrancy” experiences ebbs and flows, as the quality of its labor force and rate of innovation fluctuate. Along with two co-authors, I recently completed a research paper that attempts to empirically measure the magnitude and frequency of these effects, examining cycles of corporate investment across 20 of the largest cities in the U.S. What we found surprised us. Though cities like Detroit or Houston, which are dominated by a single industry, might be expected to experience large year-to-year swings in employment or profits (think about what gyrations in the price of oil do to Houston’s energy industry), it is harder to imagine large fluctuations in diversified cities like Chicago or Philadelphia.

Yet, this is exactly what we found. Even across very dissimilar industries — take Detroit-based companies Kmart and Ford, for instance — firms headquartered nearby tend to exhibit large, persistent correlations in performance. Companies within 50 miles of one another tend to invest (e.g., build factories) together, raise capital (e.g., issue additional shares of stock) together, and hire and fire together. Even their stock price movements are correlated.

The main point of our research is to document and quantify these effects, but a secondary goal is to better understand the mechanism. For example, why specifically do San Diego’s Qualcomm and Petco seem to mirror each other’s year-to-year performance, while Dallas-based Texas Instruments and Petco do not exhibit any special relationship other than common exposure to the U.S. economy? Although the analysis here is more preliminary, the results are most consistent with the “people-based” explanations for urban vibrancy described above. For example, when demand for Qualcomm’s products is strong, Qualcomm is likely to hire more employees, to invest more in worker training, and to increase wages. All of these effects spill over beyond Qualcomm to benefit San Diego generally. For example, richer workers spend more, leading to the development of local amenities, which makes San Diego an even more attractive location for potential workers at peer firms. Likewise, investments in worker training or education have similar effects on the local community, helping to foster innovation and development of ideas.

Of course, the flipside is also true. In 1985, Detroit-based Unisys was the second-largest computer manufacturer in the world, ranking only behind IBM. Since that time, personal computing has exploded, and yet Unisys has languished, flirting with bankruptcy on more than one occasion. How much of Unisys’ struggles can be traced to its location, where the demise of the automotive sector ravaged Detroit? It is difficult to say with certainty, but the stark contrast with Dell, headquartered just outside thriving Austin, Texas, suggests that area dynamics are at least part of the explanation.

So what does all this imply for San Diego? First, it means that firms will increasingly flock to areas that offer their employees a high quality of life, for which San Diego is nearly unrivaled. Just as energy firms often locate near oil reserves, information-based companies congregate near their most important resource — smart and creative people — meaning that attributes like good weather and reasonable commute times represent important competitive tools in the market for labor. Even under conservative assumptions, the number of companies that call San Diego home (or at least have a substantial presence here) is expected to grow rapidly over the next two decades.

However, growth is not all the same. Whereas higher employment is virtually always good news for an area, the types of jobs created are probably even more important. In particular, occupations that lend themselves to Marshallian externalities (e.g., knowledge spillovers) generate positive feedback, increasing productivity and wages at far higher rates than occupations lacking these effects.

This is where education becomes crucial. An institution such as the Rady School of Management have three distinct, well-defined, and (provided you are willing to slog through economics journals) measurable effects on the San Diego economy. First, it imparts training and knowledge to workers who already work and live here, which increases productivity, wages, property values, tax revenue, and so on. Second, by creating a perpetual stream of potential employees, Rady attracts employers to the region, particularly those in information-based industries. Third and finally, the accumulation of highly adept workers allows the fires of agglomeration to burn brightly, as increasing numbers hone the ideas and skills of their neighbors. Part of this is already visible, in the form of the more than 50 companies started by Rady graduates since 2003. But for the reasons described above, these tangible measures of progress are but a fraction of the total effect. Although they may take several years to emerge, they have large and lasting impacts on the local economy, even on those seemingly far removed from the institution itself.

Christopher Parsons is an assistant professor of finance. His research focuses on corporate finance, with a special interest in the interactions between firm’s and their local urban environments.

Endnotes
The medical challenges we face are numerous and generally well-known. Just a few examples include heart disease, cancer, respiratory disease, and Alzheimer’s disease. From an altruistic perspective, there is a great deal to be gained from finding new and improved methods to diagnose, treat, and possibly prevent or cure these diseases. And from an economic perspective, there is clearly a great deal to be gained from finding those new and improved methods. Both academia and industry have roles in making this possible. Just two of the many local examples of such collaborations include a partnership between UC San Diego and Pfizer for identifying new drugs and the newly formed Center for Innovative Therapies, a UC San Diego-industry partnership to develop interventions for prevention, treatments, and cures.

On the one side, researchers in academic medical centers are highly motivated to better understand the world around us and to assist in making advances. Such centers are characterized by wide-ranging expertise, considerable experience, and access to the large patient populations and numerous tissue samples that are necessary to conduct medical research. On the other side, industry is motivated to develop new treatments, interventions, and tools that will advance the practice of medicine while also generating profits to ensure continued survival. Further, these companies have the resources to support the requisite research studies and the expertise and experience to develop, produce, and market the resulting products. On the surface, it might appear that academia and industry would be the perfect partners.

Unfortunately, several challenges threaten the integrity of this ideal partnership. Many of these challenges were highlighted just this past year in reports from the Association for American Medical Colleges¹ and the American Association of University Professors.² Although some concerns may be more a matter of perception than reality, it is clear that failures have occurred in academic-industry relationships (e.g., failure to report negative findings) and that prejudices exist about the trustworthiness of both partners (e.g., that academics seeking funding for research might at least unintentionally bias their research). Based on anecdotal examples and survey studies, it is clear that there are cases in which negative research findings are not published or publication is delayed.³ This selective reporting of findings risks misleading the medical and research communities.

For industry-sponsored research, this might occur because of decisions made on the part of either academia or industry. From the patient’s perspective, the bottom line is best illustrated by numerous studies of the medical research literature: Studies that report positive findings are more likely than studies that are critical if one or more authors have financial conflicts of interest.⁴ This result could be caused in many ways. From the perspective of academics, industry funding appears to follow positive results (i.e., a selective bias to publish only those studies that look good for its product). From the perspective of industry, it might be perceived that scientists will unwittingly (or perhaps sometimes intentionally) bias their results for the sake of continued research funding.

Collaborations between industry and academia are further challenged by differences in culture. The goal on the industry side is necessarily to find and develop products that will sell sufficiently well to justify substantial investment up front. Academics, on the other hand, tend to be motivated first by new knowledge and a better understanding of biology, disease, and options for intervention. Although not mutually exclusive, these discrepancies are only made worse by different time windows. Industry is often driven by quarterly reports, while academic time horizons are defined in terms of years (e.g., academic advancements and grant funding are based on intervals of two or three years or more).

Collectively, these problems with academic-industry partnerships may seem insurmountable. However there is good reason to be optimistic. First, despite these many barriers to success, the fact remains that many successful partnerships have resulted in mutual benefits to academia and industry. Although partnerships resulting in drugs worth more than a billion dollars are rare, and are increasingly unlikely, the patenting and licensing of new technologies is frequent. For example, UC San Diego’s Technology Transfer Office website reports overseeing “over 2,600 active innovations and more than 1,600 patents” across diverse disciplines including, but not limited to, physical sciences, information technology, and life sciences.

A second and equally important reason to be optimistic about the future is that academia and industry have options to strengthen and protect the model of collaboration. The solution is quite simple and grounded in principles of good scientific practice: openness and transparency. By being clear and realistic up front about goals and expectations, the risks of miscommunication and misunderstanding can be mitigated. And by being publicly clear about the relationship and its framing, the architects of such collaborations will be obliged to design agreements that will not only result in new products, but will also do so in a way that is visibly defined by the highest integrity in all respects.

Michael Kalichman is UC San Diego’s founding director both for the Research Ethics Program and for Ethics in the Clinical and Translational Research Institute. His areas of expertise include neuropharmacology and research ethics.

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