

# The Entrepreneur



Official Newsletter of The Colorado College Economics and Business Department

Issue No. 6 Spring 2010

### Letter from the Chair

This has been a busy Spring and the academic year has just come to a close. I am writing on the day after the class of 2010 has graduated.

This newsletter highlights many student and faculty activities and accomplishments. You'll see that our faculty members remain committed to offering our students outstanding educational experiences both in the classroom as well as in places as far afield as Boston (Professor Daniel Johnson) and Washinton D.C. (Dan Johnson and Kristina Lybecker). Mark Smith also took students in his Economics of Global Climate Change class to the Colorado Dept. of Public Health, Excel Energy and the Governor's Energy Office. They also visited the Ponnequin Wind Farm in Fort Collins. Yes Mark made them camp!!

This Spring the department hired Maroula Khraiche a Macroeconomist from the University of Connecticut. Pedro de Araujo, is completing his second year in the department, and has already distinguished himself as a challenging and effective teacher and has his first peer review publication. Congratulations Pedro!! Dan Johnson continues to be an outstanding teacher and ambassador for the college. He was present at the Vancouver Olympics to meet with Alumni and to showcase his work on medal predictions. Dan will serve as Associate Chair next year. He also chaired the College Compensation Committee this year. Julie Chesley and Kristina Lybecker, who were hired three years ago, have received positive third year reviews from the college. I would like to say thank you to all of you that wrote letters for their files. They are both terrific teachers, and they have enjoyed remarkable scholarly achievements this past year, with Julie seeing an article published and Kristina getting a number of papers published. We are all very sad about Julie Chesley's decision to resign her position at the college. I personally know what an asset she has been for the students in Research Methods 2 and I will miss her very very much.

We have missed Larry Stimpert, who has been quite productive while on sabbatical all year at the Air Force Academy, but we are looking forward to having him back next fall. Mark Smith has returned from his fall sabbatical where he was a Fulbright-Schuman European Affairs Scholar studying the European Union Emissions Trading Scheme. Judy Laux has been working overtime all year, by serving as Associate Chair. She was also on the College's Budget Committee that deserves much credit for stabilizing the financial future of the institution. She also served the entire College as a member of the Faculty Executive Committee. Esther Redmount continued on the FEC and will serve as Chair of the FEC next year. Vibha Kapuria-Foreman was back from her fall sabbatical and continues to be a good teacher. She will be offering a new course on India and China next year and will also serve on the Social Sciences Executive Committee.

The department wouldn't be as great as it is if we didn't have such terrific partners in Nancy Heinecke, Francesca Desmarais, and Kathy Lindeman. They are our first point of contact with students and students have come to know that they can count on great advice and a friendly smile. Beyond all the work they do to help us with our teaching and research, they also do so much to make our department an enjoyable and gratifying place to work.

We welcome your submissions to *The Entrepreneur!* Please fill out the last page of this issue and send to the address listed, or send electronic submissions to: <a href="Million-NHeinecke@coloradocollege.edu">NHeinecke@coloradocollege.edu</a>. Alums, we'd love to hear from you! Please send us your updated information so that we may better serve you. Thank you.

### Letter from the Chair

The newsletter provides many updates on the activities of our students. Under the very capable leadership of Nate Danforth and Ben Gross, the Student Advisory Board assisted the department in so many ways. SAB continued to host successful Food for Economic Thought events, a well-attended networking event in Denver, and the annual Economic Symposium. Next year the Advisory Board will be chaired by Rakhi Vohria and Riley Wyman.

The Investment Club continues to be one of the best student organizations on the Colorado College campus. Troy Deichen and David Suhler brought excitement and energy to the I –club. They continued to focus on education and successfully reallocated their portfolio. This year's portfolio has far outperformed last year's. Max Hillman will chair the club next year.

The Entrepreneurship Club has had another great year, with excellent attendance and student participation due to the leadership of Luke Parkhurst and Max Hillman. As juniors, the club will continue under these excellent leaders. In addition to bringing in various guest speakers the club is also working on a few local initiatives.

The newsletter also highlights many of the excellent theses written in the department this year. A total of 62 theses were written in all. The 15 students featured in this addition were nominated by their advisors and have worked hard on great topics. Continuing our department's excellence in student publications, a few of these seniors are turning their thesis into a publishable working paper.

A special thanks goes to you, our alumni, who contribute to the department in so many ways. And, many of you have designated that your financial gifts be directed to the Department of Economics and Business. When you do this, your financial support comes directly to the department so it can be used to support the outstanding educational opportunities that are described in this newsletter. Thank you for this very tangible form of support. If you enjoyed field trips or department awards or lunch on the department now is your time to give back. During this time of budget cuts we really need your help.

-Aju Fenn, Chair of the Economics and Business Department

# **Welcoming Our New Tenure Track Hire**



The department recently hired Maroula Khraiche as a tenure track professor of macroeconomics. Maroula expects to finish her Ph.D. at the University of Connecticut in the spring of 2010 and will join the faculty at CC in the fall. Her fields of specialization are International, Macro, and Monetary Economics. Her primary research focuses on the macroeconomic influences of international migration of skilled and unskilled labor. We look forward to having her in our department!

# "Energy and Environmental Policy in the New Decade:" Economics Student Advisory Board Annual Symposium Proves Success

The Economics and Business Department Student Advisory Board held their annual symposium on Tuesday, April 6th in Gates Common Room. This year's symposium topic was —Energy and Environmental Policy in the New Decade" and various notable speakers from different sectors spoke on the future of the environment. A panel of four Colorado business authorities—Drew Rankin, Mark Smith, Phil Kannan, and Jim Reis—spoke on the topic with regard to their respective fields.

Rankin, General Manager at Colorado Springs Utilities, began his speech by prompting the question of why the utilities industry seems -sluggish" to the masses. Having been in the utilities industry for 30 years, Rankin asked that people try not to stereotype utilities. —The challenge we face is that we have basic commodities that get consumed by the masses," Rankin said. —We're not the bad apples trying to ruin the environment."

Phil Kannan, a CC professor in the Environmental Science department, provided some dispute to Rankin, expressing concern that utilities encourage the selling of electricity rather than the conservation of energy. Kannan said that volume is closely tied to profit; the more kilowatts a utility company sells, the higher their profit will be.

Kannan proposed that people delink the strong relationship between profit and the environment in order to combat the issue. He suggested rewarding public utility companies for conserving energy by offering incentives. —Energy can be wisely managed by urging the need to protect the environment," Kannan said.

Smith, the second speaker, is also a CC professor in the Economics and Business department. His research mainly focuses on water resources and management. Smith received a Fulbright Scholarship to study the European Union's energy trading system and spent time in Brussels, Berlin, Paris and Copenhagen gathering research.

Smith then pulled out props to demonstrate the impact of global warming. Everyone in the audience laughed as Smith



Mark Smith Demonstrates the Struggle over Climate Policy

put a stuffed polar bear on one hand and a stuffed tiger on the other to illustrate the effects of climate change.

As an economist that has done substantial research on the economic role in the environment, it is in our economic self-interest to take strong and immediate action to reduce greenhouse gas emissions," said Smith.



Reis was the final speaker who spoke from his experience with World Trade Center Denver, an organization that works to build Colorado's image as an international business and trade hub. Reis said that Colorado is the 6th largest state producer of natural gas, 8th largest producer of coal and 11th largest producer of oil. The state of Colorado is behind only California and Texas in the number of employees it has in energy industries. —We sure know how to cut jobs, but we don't do a good job of helping those people who lost their jobs get trained for other industries like the alternative energy industry," Reis said.

After each panelist concluded their opening remarks, the two co-chairs of the Economics and Business Student Advisory Board, Nate Danforth and Ben Gross, asked each panel member a prepared question.

### 2010 Spring Symposium cont.

Rankin was asked to describe the relative advantage of current energy sources and the future potential in each method. He explained that the pros and cons of various fuel options are broken into three parts—the economy, ecology and equity of the fuel option—and that all energy sources have their pros and cons. At any one time, society ebbs and flows," Rankin said. What's popular today, renewable energy, may not be popular tomorrow."

Smith was asked to describe the global political climate of cooperation after the lack of significant progress from Copenhagen 2009 and what he sees as the next steps toward international cooperation. Smith explained that there are six major entities involved in the issue: the United States, the European Union, China, newly industrializing states, developing countries and oil exporting countries. He also said there are six major issues associated with climate cooperation, including disparities on target, timetables, mechanisms, the role of offsets, finances and how it all fits together. —The United States Congress won't move unless they feel protected from China," Smith said.

Kannan was asked to speak about the environmental policies that are changing corporate conduct today. He explained that Congress put in place a -whistleblower policy" that says an employee who tells the federal government that their employer is polluting receives a financial incentive.

Additionally, Kannan said that citizen lawsuits are now playing an active role in environmental policy, as ordinary citizens can enforce a statute to see that the law is fully enforced. —Congress handed us a system that is quantifiable, straightforward, proves violations and creates incentives for employees and citizens that tell the truth," Kannan said.

Finally, Reis was asked to speak on the current efforts being done by the World Trade Center to promote clean energy and sustainability. —The WTC Denver is one of many economic development groups in Colorado," Reis said. —One of our strengths is to bring all these organizations together to help the 5 million people of Colorado move toward a sustainable society."



The Symposium Panel, from left to right: Jim Reis, Phil Kannan, Mark Smith, and Drew Rankin

Reis said that WTC Denver is currently trying to get the message out that Colorado has many clean energy initiatives, making it a good place for companies to relocate and bring climate issues out in the open. We try to open up opportunities for business in Colorado and help open doors in the international marketplace," Reis said. There are a lot of companies in Colorado that are developing new technologies."

Danforth said that the Student Advisory Board chose the topic of energy and the environment for this year's symposium as a way to gauge campuswide interest in a topic that is widely popular today. —There's a lot of noise around climate change," Danforth said. —It was nice to hear all the different perspectives about what could and should be done."

- Rakhi Voria '11

### Alpha Kappa Psi, Business Fraternity, Makes Its Debut at Colorado College



Tana Dippolito with AKPsi Founding Members: Rakhi Voria, Katherine Kelley, Laura Martin, Alex Ammons

On Wednesday March 31st, Colorado College students gathered together in a Palmer classroom for the colonization ceremony of Colorado College's newest fraternity, Alpha Kappa Psi. Rakhi Voria, Katherine Kelley, Laura Martin and Alex Ammons pledged their commitment to starting the group. One by one, they stepped forward to sign the ledger and receive small gold pins.

Alpha Kappa Psi is the oldest and largest professional business fraternity. It is a coed organization that was formed by New York University students 105 years ago as a way to make friends, network and develop the soft skills' needed for business that cannot be learned in classrooms. The group is open to college students of all majors and membership is lifetime.

Voria has been working with

Tana Dippolito, Expansion Coordinator of Alpha Kappa Psi, for the past six months to bring the business professional fraternity to Colorado College. Voria is the founder of the Colorado College chapter and is serving as the interim President. —When Ms. Dippolito came to me with information about the organization, I knew it would be something CC students of all majors would be interested in," said Voria. —It not a typical Greek organization at all; rather it's a group that stresses the importance of making connections and professionalism. Any job requires these skills."

Dippolito traveled to CC from Alpha Kappa Psi's national headquarters in Indianapolis. She hosted two informational sessions and ran the initiation ceremony. Students who attended the information sessions and colonization ceremony expressed a lot of enthusiasm about joining.

Alpha Kappa Psi chapters are run like small businesses. Its goal is to give members opportunities to practice their business skills, acquire soft skills, establish network connections and build their resumes. Alpha Kappa Psi members are expected to hold resume-building workshops, tour companies, host etiquette dinners and provide practice interviews to the wider campus community. The group will also hold social events.

According to the information session, the fraternity calls itself a -eareer crystallizer" because of the benefits of its alumni association. Young Alpha Kappa Psi graduates can use their connections in the wider fraternity brotherhood to network with older, more experienced members to attain jobs and advice. Leadership in the fraternity also boosts students' resumes.

The creed of Alpha Kappa Psi reads, We live in deeds, not years; in thought, not breath; in service, not in figures on the dial. We count time by heart throbs, when they beat for God, for man, for duty. He lives most who thinks most, is noblest, acts the best."

CC's new Alpha Kappa Psi colony will be established as a chapter once about forty members exhibit interest. The group will hold two professional, one service, and one social event in fall of 2010 before submitting their petition to the national headquarters to gain chartership.

### **Great Strides for the Investment Club**

The Colorado College Investment Club has accomplished a great deal during this past year. The primary focus this year has been education. Each week we reviewed new terms and strategies associated with the financial markets. This year's success can be attributed to the hard work of each member. Each week members were given short assignments allowing us to cover a large area of the market each week. Following their own passions each members' assignment was tailored to their specific interest. For example, one member covered the impact of political policy on the markets, while another covered the benefits of bonds and T-bills. The weekly assignments spurred provocative dialogue and debate, which further reinforced our understanding of the markets.

As financial markets began to recover, the Colorado College Investment Club reexamined our current portfolio. Collectively, we moved away from ETFs and began to create a diversified portfolio by selecting companies in specific industries. We are proud to report that our new portfolio has significantly outperformed last year's portfolio. In addition to reallocating our portfolio we also successful lydeveloped infrastructure that allowed us to keep detailed notes on each investment. It is our hope that future members of the Investment Club will be able to look back at our detailed meeting notes and portfolio adjustment reports to expand on this year's work.

Bringing speakers to our investment club is critical to increasing our understanding of investments and the financial markets. This year we were lucky to have speakers like Jerry Bruni come and talk with us regarding his work as a successful fund manager. We are always looking for speakers to come and talk with the Investment Club. If you are interested in speaking with the Colorado College Investment Club please feel free to contact Max Hillman@coloradocollege.edu.

The Colorado College Investment Club provides a unique experience for students to actively learn about the financial markets. While the reallocation of our portfolio proved to be successful, our real success came in our ability to teach one another. We would like to thank the Schlessman Fund and the Colorado College Economic Department for their continued support.

-Troy Deichen '10

### **Economics & Business Student Advisory Board**

Second semester 2010 has been a busy one for the Economics & Business Student Advisory Board. SAB has hosted a number of Food for Economic Thought speakers, held its annual alumni networking event at the WynKoop Brewery in Denver, and just recently, its annual symposium with this year's title being *Energy and Environmental Policy in the New Decade*.

The FFET speakers this semester included, Phil Condit, former CEO of the Boeing Corporation, Bill Breen, founder of Fast Company, Sue Wyman, President of the Jivaro Group, Lois Quam, H. Chase Stone Lecturer, and lastly, Joyce and Mike Wenger.

The networking event, held on January 26<sup>th</sup>, was a success with a large number of Denver alumni present to provide networking opportunities for current Colorado College students. WynKoop provided an easy rendezvous point for local alumni and the students were able to take a bus directly from Colorado College to the venue.

Lastly, the 2010 SAB Symposium provided a unique panel of speakers from very different backgrounds. Although there was a lot to cover in a short amount of time, each speaker was able to provide valuable insight on the topic at hand from his personal experience and raise awareness to a variety of issues our planet faces. Please see the article about this event on page 3.

The final SAB happy hour is scheduled for April 28<sup>th</sup> at Phantom Canyon downtown and will be a great way to celebrate the end of the year. SAB would like to sincerely thank Kathy Lindeman and Julie Chesley for their invaluable help and support throughout the year. SAB will be looking forward to a great year in 2010-2011 with Rakhi Voria and Riley Wyman as the new co-chairs.

-Nate Danforth '10 -Ben Gross '10





### **Entrepreneurship Club**

This past semester the Entrepreneurship Club has met with a variety of individuals from the Colorado College and local community. Mike Edmonds, Dean of Students, talked with us over lunch about a microfinance initiative that some students at Macalester are engaged in. We also discussed with Mike the possibility of establishing a venue on campus for student artists to sell their work. We currently have a once a year craft fair. Gina Solazzi, the executive director of the Children's Literacy Center came to speak with us about her organization, and to get ideas for how they might expand their fund raising. Some of the ideas presented were a mobile bookstore, and getting into the SAT tutoring business. Phil Condit, CEO of Boeing spoke to us about the 777 initiative he led, and the dynamics of assembling a successful team. Next block we will be hosting Jerry McHugh, CC class of 1980, and founder of San Juan Resources.

-Luke Parkhurst '10



The Entrepreneurship Club meets with the Children's Literacy Center to discuss innovative fund raising

### Research & Publications

### **Dan Jonson's 2010 Olympic Predictions**

Dan Johnson ran his economic model to predict Olympic medals again this year, and the media were in a frenzy over them. With the Games in Vancouver (where Dan attended elementary school), he decided to attend the Games, and to speak at an event for CC alumni and friends while he was there. In the end, 185 media outlets covered his predictions in 23 nations. Forbes, US News, the Wall Street Journal, and CNBC were the big circulation stories, but the most stressful one was going live on Canadian national TV just moments after news aired of the Georgian luge accident. He found it all exhausting, but asserts that the publicity for the College, and for the good publicity for the predictive ability of economic models, is still worth the cost. His final results? 87% accuracy, including the only prediction of which we are aware that came within 1 medal of the actual Canadian medal total (which was a record golden haul). In fact, part way through the Games he was derided across Canada for inaccuracy (to be followed a few days later by a few nice stories involving humble apologies). The big surprises were the US and German teams, who excelled more than anyone expected, and the Russian and Finnish squads (who suffered to the degree that Putin demanded resignations from the Russian organizers upon their return). There is already a student working on the data to prepare for the 2012 Games in London.

### Aju Fenn On the Front Page of The Wall Street Journal

This January, Aju Fenn was featured on the front page of the *Wall Street Journal* in the article —What Price Vikings Fandom? Funny You Should Ask" by Conor Dougherty. The article discusses what the economic worth of the Minnesota Vikings football team is to its fans. According to a study done by Aju Fenn and John Crooker, the magical value is \$530.65. This captures the total worth and pride which Minnesotans place on having the Vikings in Minnesota . The study was originally Aju Fenn's idea when he was teaching his sports economics course at the University of St. Thomas in St. Paul. Over the past 10 years the study has developed and grown and was published last year at a critical moment. The Vikings are threatening to leave Minneapolis unless a new stadium is built, however they are also demanding that fans help pay for the stadium which would cost \$870 million dollars. Who knows if spending tax money on a new stadium is the best idea, but it's clear that the team is worth a lot to Minnesota fans. To see the article go to:

http://online.wsj.com/article\_email/SB10001424052748704281204575002843963779182-IMyQjAxMTAwMDEwNjExNDYyWj.html.

### Joey Crab "07Published in The Energy Journal

Economics Alum Joey Crab <u>O</u>7 recently had his senior thesis published in the *The Energy* Journal, the best journal in energy economics. The paper, —Fueling Innovation: The Impact of Oil Prices and CAFE Standards on Energy-Efficient Automotive Technology" is co-authored with his advisor Dan Johnson. It tests the induced innovation hypothesis that higher oil prices will lead to increased innovation in energy-efficient automotive technology. Using a dynamic model of patenting, they found robust empirical support for the hypothesis, concluding that both the acquisition cost and retail markup portion of fuel prices are powerful in generating subsequent innovation. Their results include the effects of CAFE regulations, finding no evidence of their impact on innovation, even within a model that endogenizes them via fuel price expectations. Joey Crab is currently with the Atlantic Thrashers.

### Research & Publications

### Mark Smith: The EU Emission Trading Scheme

Last year I was Fulbright-Schuman European Affairs Scholar during my sabbatical. Unlike the more typical country-based Fulbright awards, the European affairs program seeks to promote understanding of the institutions of the European Union. I was based in Brussels, —the apital of Europe," to study the European Union Emissions Trading Scheme – the EU-ETS for reducing emissions of greenhouse gases. Like Washington, Brussels is home to all the various groups trying to influence EU policy in addition to all the EU institutions. With a new EU climate directive to take force in two years and the lead up to the United Nations climate meetings in Copenhagen last December, Brussels was alive with climate-related activity. During my stay, I also traveled to London, Paris, Vienna, Berlin and the Copenhagen summit to meet with various stakeholders involved in European climate policy. It was like one of my environmental economics field trips, only 4 months long and no driving a van.

INTERNATIONAL IMPOSORS
TRAINING ASSOCIATION

MAKING MARKETS WORK FOR THE ENVIRONME

Roles of IETA

Tribit Tank

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Mark Smith at the Copenhagen COP

I also enjoyed the help and company of many C.C. alumni - both majors and -friends-of-majors" – some working on climate issues, others not. These include Mike Ashley '05 (History), Nick Malyshev '80 (Econ.), Chris Stutz '92 (English), Alison Cole Stutz '92 (Comp. Lit.), Spencer Shadle '07 (IPE), John

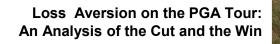
Anthony 98 Chris Zink, 04 (LAS), Annie Petsonk '79 (Biology), Courtney Shepherd '09 (IPE), Drew Nelson '99 (English) and most importantly, Matt Banks (APE) '97 who wrote me the letter of recommendation this time and without whose help, this never would have happened. I had a great time and had a hugely productive research experience.

Thanks, Matt!

P.S. For those who are interested, I have two papers, based on my research, underway. The first, —fie Political Economy of the Making Climate Policy in the European Union: Lessons for the United States." The second, —Why a Global Carbon Market Should be Stable, Dull and Unprofitable."

# **Economics Faculty on Student Research Collaboration Published in The Journal of Economic Education**

Professors Aju Fenn, Daniel Johnson, Mark Smith and Larry Stimpert have once again highlighted the excellence of our department. In early 2010 *The Journal of Economic Education*, the best pedagogical journal in economics, will publish a joint article written by these four faculty on student research collaboration. While many departments ask their majors to write a senior thesis as a requirement for the major or for honors, creating new knowledge or publishable research is not the standard that most institutions set for their undergraduate students. This paper describes four approaches that have allowed the CC Economics Department to meet this standard. One is to identify a topic and a workable approach, such as competitive balance in sports, and apply it in different contexts – football, basketball, soccer, etc. with different students working on different sports. The second is to develop a huge data set, in this case patents, and then set students to work on problems involving some aspect of the data set. The third is to divide a related quantitative problem (river-based recreation) into distinct parts and have students work on each part. The fourth is to divide a related qualitative problem (the role of corporate boards) into distinct parts and have students work on each part. The faculty also address the challenges of conducting research with undergraduates, including limited time and resources, limited skills, and the tedious nature of gathering data.



Matthew Baer



Alex Stiller-Shulman



The Wyoming Beef Industry

Allison Wold



A Behavioral Approach to Stock Pricing

Jayash Paudel



**Domestic Violence and the Military** 

Marilyn Pease



The Effect of Demographic, Job, and Organizational Characteristics on Perceptions of Work-life Balance: A regression Analysis of Working Professionals

Liz Bullock



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The Implicit Cost of Carbon under Cash for Clunkers and Appliance Rebate Programs







#### LOSS AVERSION ON THE PGA TOUR: AN ANALYSIS OF THE CUT AND THE WIN

#### Matthew Baer

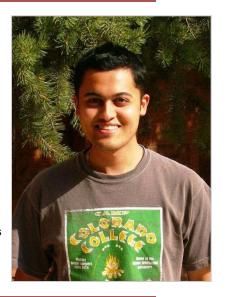
Professional golfers on the PGA TOUR must face countless risk and effort choices throughout any given tournament. The concern of the present study is how players alter their risk behaviors when faced with different positions relative to certain salient reference points within a tournament—primarily the cut and the win. This study explores players' risk and effort behaviors in the context of a behavioral economics concept called loss aversion. Loss aversion says that people put more weight on losses than on gains. Thus, the present study expects professional golfers behind the cut and the win to exert more effort and risk. Players ahead of the cut or in the lead are expected to play it safe. Only one known previous study has explored loss aversion in professional golf. The results in the present study support the hypothesis and carry various implications for the PGA TOUR, behavioral economics, and numerous other contexts outside of sports.



#### A BEHAVIORAL APPROACH TO STOCK PRICING

#### Jayash Paudel

Recent literature in behavioral finance has contradicted the notion of efficiency of markets. Greater emphasis on how psychological biases influence both the behavior of investors and asset prices has led to a strong debate among proponents of behavioral finance and neoclassical finance. This has created the need to study how psychology affects financial decisions in households, markets and organizations. This study conducts a pooled ordinary least squares (OLS) model using the fixed effects estimator to investigate the linkage between investor sentiment and stock prices for 35 firms belonging to three different industries over a time period of 56 years, from 1950 to 2005. The findings suggest that investor sentiment does not significantly affect the stock prices in this sample.



# THE IMPLICIT COST OF CARBON UNDER CASH FOR CLUNKERS AND APPLIANCE REBATE PROGRAMS

#### Borge Hamso

Cash-for-clunkers was a program designed to stimulate the economy and reduce greenhouse gas emissions. The government is now initiating a new plan that will provide rebates for household appliances. This research presents estimates of the cost of reducing Carbon Dioxide under Cash-for-clunkers and similar programs for both clothes washers and refrigerators. The estimates suggest that these rebate programs are an expensive way to reduce  $CO_2$  emissions. With an average rebate of \$4215, baseline scenarios indicate that Cash-for-clunkers costs \$370.26 for a one metric ton reduction in  $CO_2$ , and \$414.62 per ton when the scenario includes the incentive to drive more that accompanies owning a more fuel efficient vehicle. The baseline scenarios for refrigerators resulted in a lower cost of \$302.03 per metric ton of  $CO_2$  while clothes washers were more expensive with a price of \$734.68 per metric ton of  $CO_2$ .



# A HEDONIC MODEL VALUATION OF NATURAL AMENITIES IN EL PASO COUNTY, COLORADO

Kie Riedel

This thesis used a hedonic pricing approach to analyze how proximity to greenspaces and water bodies impact residential home sales prices in El Paso County, Colorado. Values for proximity to natural amenities were first estimated using Euclidean distances. Distances were then calculated by a road network to determine how residents value accessibility and use of environmental attributes. In the Euclidian model, I found that home sale prices increase with closer proximity to parks, lakes, golf courses, sports/recreation specialty facilities, and Pikes National Forest. Closer proximity to streams, however, led to a decrease in housing price and closer proximity to natural areas had an insignificant impact on housing.

In the road network model, distance to natural areas by road became significant, indicating that closer proximity and greater use access of natural areas lead to higher home sales prices. Closer distances to parks by road, however, had the opposite effect and home prices decreased with increasing proximity. All other greenspace and water body variables remained fairly similar in the road network model.

Interestingly, homeowners valued proximity to Pikes National Forest the most, placing a premium of nearly \$1,500 for being 100 meters closer to Pikes National Forest, evaluated at the average house price and an initial distance of 1,000 meters. These results illustrate the importance of environmental amenities to homeowners in El Paso County and can be used to help policymakers and urban planners make decisions regarding preservation, maintenance, and design of natural amenities.



#### THE WYOMING BEEF INDUSTRY

Allison Wold

This thesis explores the significant factors affecting the decision of family ranchers to produce grass-finished beef. Since the 1950s the United States has shifted from a forage-based cattle industry to one reliant on grain consumption. In the last decade, however, a niche market has surfaced, providing opportunity for the remergence of a grass-finished beef industry. Many independent cattle producers throughout America's Western Frontier are transforming management strategies to fill this niche market. An evaluation of the factors affecting the decisions of family ranchers to produce grass-finished beef rather than selling cattle into a grain-based supplemental feeding program is needed to maintain a stable cattle industry that will preserve traditional ranching values, rural communities and an industry on which the American economy relies.

Relying on six case studies of Wyoming ranches producing grass-finished beef, the data for this thesis was collected through firsthand accounts and interviews. Among the key determinants of ranchers choosing to produce grass-finished beef are health issues, personal beliefs, abundance of grass as a natural food source, and the opportunity to establish market leadership. Ranchers participating in this niche market employ a focused differentiated business strategy and this thesis explores how this strategy and the aforementioned determinants impact the benefits, challenges and costs of participation in this niche market.

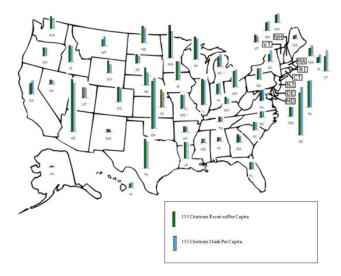


# FRUITS OF YOUR NEIGHBOR: AN ECONOMIC GEOGRAPHY OF AGRICULTURAL INNOVATION

#### Alex Stiller-Shulman

Diffusion of new knowledge and technologies in agriculture can offset the sometimes explosive nature of food price increases, especially in developing countries. Closely following the notion of innovative geographic clusters, this thesis tests the US agriculture industry for evidence of innovative agglomeration. Each agricultural patent granted from 1972 – 2002 was spatially tagged using Geographic Information Systems software. The data indicate that a closer distance between any two patent origins increases the probability that one cites the other as prior art, with subtle interregional variations on the degree to which proximity advances agricultural innovation.





Per Capita Citations Received and Citations Made by State for Agricultural Patents

# DOES PRINCIPAL PAY MATTER? AN ANALYSIS OF PRINCIPAL COMPENSATION AND SCHOOL PERFORMANCE IN COLORADO K-12 PUBLIC SCHOOLS

#### David Carlson

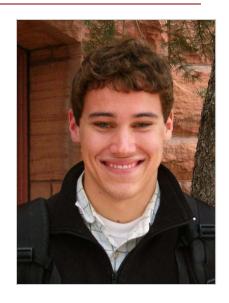
Compensation of K-12 school principals, and the effect that it has on the performance of the schools they lead, has become a relevant education policy debate in recent years as well as a nascent field of academic research. This study examines the relationship between principal salaries and student performance on CSAP tests (statemandated standardized tests) by using multivariate quintile regressions on data from the 2002-2005 school years. Controlling for critical factors such as students' families' income, differences in cost of living across the state, per pupil school funding and teacher salaries, the amount that principals were paid in Colorado public schools (K-12) had a measurable, statistically significant impact on student performance on CSAPs, especially in math. However, the percentage of a school's students on free and reduced lunch and teacher salaries were found to have a larger impact on student performance. This thesis is aptly timed with all the national buzz about education reform: the Race to the Top competition, discussions about merit pay for teachers and principals and drastic school turnaround measures have dominated the headlines in the past couple years.



#### **BUSINESS AVIATION AND COMPETITIVE ADVANTAGE**

#### Keir Myers

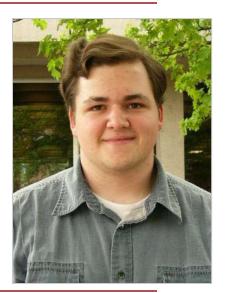
Despite the fact that business, or —orporate," aircraft use has grown rapidly in the past decades, there fails to be a sound case for justification rooted in business theory. Simultaneously, current strategy literature neglects a body of thought concerning how an external factor, such as business aviation, could affect a firm's core competencies and ultimately competitive advantage. As such, nine firms were interviewed using a business strategy lens in order to understand the justification and mentalities surrounding business aircraft assets. The interviews generated data that suggests a secondary or tertiary link between business aviation and competitive advantage. Most notably, the findings coincide with academic and business literature concerning the importance of intangible assets, firm inter-connectivity, and core competence maintenance and development. Business aviation is a critical external factor that allows firms to develop capabilities, foster resources, and ultimately pursue their unique strategies. By aiding in the overall process of strategic implementation, business aviation stimulates generic strategies and improves the way firms accumulate and allocate resources. This study can be expanded upon or altered to further explore the impact of other external factors upon intangibles and thus, competitive advantage.



#### THE EVOLUTION OF COOPERATION IN COMMON-POOL RESOURCES

#### **David Suhler**

The prevalence of cooperation among appropriators in common-pool resources contradicts the predictions of the theory of collective action. Understanding the factors that affect the propensity for appropriators to cooperate will yield insights into the role of institutions and social norms in managing resources. An evolutionary game theory model is constructed to show the emergence and stability of a cooperative equilibrium subject to initial conditions. A logistic regression model is used to determine the effect social, institutional, and physical variables have on the probability of a cooperative equilibrium emerging in irrigation systems in Nepal. The system location and type of management structure are found to affect the likelihood of cooperation and efficient use of the resource.



#### DOMESTIC VIOLENCE AND THE MILITARY

#### Marilyn Pease

The military is inherently associated with violence. Some studies have attempted to forge a link between military members and property crime or previous abuse, but none have explored the specific link between domestic violence and the military. This study presents a game-theoretic model that attempts to determine if the presence of military bases is positively correlated with the rates of violent crimes in the area. A Tobit regression model is used to identify the determinants of violent crime at a county level. Results indicate that the branch of the military most consistently associated with elevated levels of violence is the Air Force. This may, however, be largely dependent on the specific time period used for the study. More specifically, the branches of the military with low deployment rates had high correlations to violence and those with high deployment rates had low correlations to violence. It is hypothesized that this is due to the fact that during the time period studied there were a large number of deployments to the Middle East.



# THE EFFECT OF DEMOGRAPHIC, JOB, AND ORGANIZATIONAL CHARACTERISTICS ON PERCEPTIONS OF WORK-LIFE BALANCE: A REGRESSION ANALYSIS OF WORKING PROFESSIONALS

#### Liz Bullock

In the past half-century, an emphasis on work-life balance has emerged as a result of a changing labor force. Researchers have examined a variety of factors to explain how individual perceptions of work-life balance are influenced; some studies focus mainly on micro factors, such as gender or race, while others look to larger-scale elements such as organizational structure or job characteristics. This thesis sought to compare both micro and macro factors to see if work-life balance was primarily a function of demographic, job, or organization characteristics. A total of 269 professional employees at over 100 domestic and international organizations were surveyed, and results were analyzed using three linear regression models. Out of all the factors that were significant in predicting work-life balance in the models observed, only one—having four or more children—was a condition that organizations cannot control for. Interestingly, all of the other factors that proved significant—job autonomy, average hours worked per week, job pressure, and workplace support—are attributes that organizations can influence. Thus, this thesis suggests that organizations have a powerful role in helping their professional employees achieve a comfortable work-life balance.



# THE ROLE OF MEDIA AND AIDS KNOWLEDGE IN ERADICATING THE HIV/AIDS EPIDEMIC IN INDIA

#### Smriti Agarwal

This paper aims to understand the AIDS concern in India by analyzing two different relations. The first model studies the effect of media sources such as newspapers, radios and television on AIDS-related knowledge among Indian men and women using a two-stage hurdle model. The second model looks at the effect of AIDS-related knowledge on the sexual behavior of Indians using the Probit analysis. Both these relationships hint towards the possible problems faced by AIDS campaigns and government programs in combating the HIV epidemic in India. The effect of media in promoting AIDS education, even though statistically significant, is minimal. Moreover, the effect of AIDS knowledge on sexual behavior is very disturbing. Women have insignificant control over their sexual behavior despite their improved knowledge levels. Men's behavior is barely influenced by their knowledge levels. Thus, increasing AIDS knowledge among Indians is only one of the several crucial steps in controlling the HIV/AIDS epidemic. However, the success of AIDS campaigns and other programs also depend on factors such as improved education levels, better job conditions, enhanced livelihood, and additional resources for the country's healthcare.



# FROM INFORMATION TO CONCEPT: HOW TO ADAPT IN THE CHANGING BUSINESS WORLD

#### Triston Kanipe

There is little question that the business world is in the midst of a major transition. The inevitable question is asked, —Wat is this change and how do I adapt to it?" Daniel Pink has developed a six-part theory outlining six essential aptitudes which will allow one to excel through this change. Pink describes this movement as a transition from the Information Age, which values logical, linear thinking, to the Conceptual Age, which values inventive, empathetic, and big-picture thinking. This study is an empirical investigation of the simultaneous presence of the six essential aptitudes in ten entrepreneurs, five in product-based industries and five in service-based industries. The results suggest that the transition from the Information Age to the Conceptual Age although well underway, is not yet complete.



#### **EXECUTIVE PAY INEFFICIENCIES IN THE FINANCIAL SECTOR**

#### Haley Barton

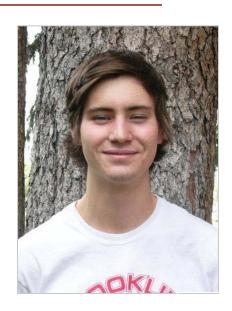
The 2008 financial crisis has left researchers investigating the inefficiencies that prompted the collapse of the credit and investment markets. This study considers the implications of excessive executive pay on capital structure during the years 2005 through 2007. The hypothesis proposes that for firms in the financial sector, executives awarded generous non-salary based compensation packages compared to salary implemented a higher use of debt in their firm's capital structure. Agency theory, capital structure composition, the Efficient Market Hypothesis, and behavioral finance principles represent key economic theories supporting the hypothesis. The study examines data on 31 firms in the financial sector and 31 firms in the manufacturing sector to empirically test the relationship between executive pay and leverage. Cross-sectional analysis of nine models reveals that non-salary compensation is a significant determinant of a firm's total debt-to-total assets ratio for the financial sector, while the manufacturing sector yielded insignificant findings. The results further evidence that within the financial sector, the greatest relationship between non-salary compensation and leverage occurred when a one- or two-year lag between executive pay and the debt ratio was in effect. These findings reveal sources of agency conflicts and behavioral biases within the financial sector during the three years preceding the financial collapse.

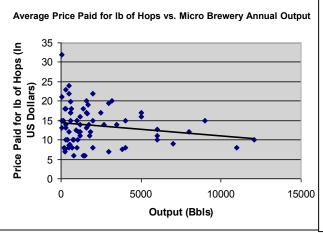


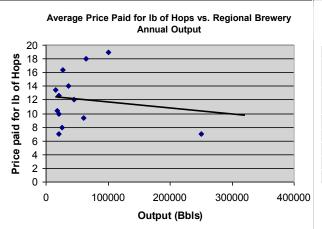
#### THE PRECARIOUS NECESSITY OF HOPS

#### **Edric Spears**

The hop plant is responsible for the distinct flavor and aroma found in every beer. In 2007, poor harvests in Europe and Australia, as well as a depressed market price produced an insufficient world supply of hops. This discrepancy initiated an upwards price shock that has changed the nature of the craft segment of the beer industry. The effective utilization of supply chain risk management techniques allow breweries to decrease their costs and ensure the supply of the raw materials that they need to prosper. The research for this thesis was collected through a nationwide survey of 110 members of the Brewers Association including the Sierra Nevada Brewing Co, the Stone Brewing Co and the Odell Brewing Co among others, and interviews with the Bristol Brewing Co in Colorado Springs, the New Belgium Brewing Co in Fort Collins and MillerCoors in Golden. It is my hypothesis that hops merchants engage in opportunistic pricing structures that quote smaller breweries at higher prices. By forming coops, micro brewers can increase their market power to better negotiate contracts with the hops merchants. I also discuss a variety of strategies that brewers could use to ensure a more stable price and supply of hops.







# The Final Page



### **Entrepreneur Submissions**

We welcome your submissions to *The Entrepreneur*. Please fill out this page and return so that we may better meet your needs in the future. Feel free to tell us about yourself, your family, your latest events in life – or some good of stories from your alma mater. Please share some photos as well.

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### Thank you!!! -- The Entrepreneur

Look for the seventh edition of *The Entrepreneur* in the fall of 2010! If there is something you feel should be added to the next issue, please email your comments, suggestions and questions to <a href="NHeinecke@ColoradoCollege.edu">NHeinecke@ColoradoCollege.edu</a>. Also, please visit our website that is updated daily at <a href="http://www.coloradocollege.edu/dept/EC/">http://www.coloradocollege.edu/dept/EC/</a> to find out about our students, faculty, staff, curriculum, current research, events and contact information. Thank you!

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