Welcome back to the Barton School Research Connection. As we noted in the inaugural issue, the purpose of this publication is to provide access by our business constituency and others to the research findings and knowledge creation taking place in the W. Frank Barton School of Business. Wichita State University is a metropolitan research institution and the fundamental mission of the university is to provide support to the Wichita region and beyond via a number of conduits. One of those is the essential learning tool of research.

Barton School faculty members continue their productivity in research and research publication. Most of this research is published in academic journals where the submissions are reviewed by peers in the discipline. This academic year the Barton School is recruiting five new faculty members to start in fall 2011. These new faculty members will further enhance our research output to encompass topics ranging from running a small family business to the intricacies of multinational corporations.

In academic journal form, articles published by Barton School faculty can be lengthy and involved. Because of this, we have endeavored to cut to the chase in providing research results in an accessible form to our business constituents, articles in the Barton School Research Connection that are brief and to the point. We hope we are successful in doing so and appreciate any feedback you can provide.

The lead article (Dr. Steve Farmer and colleague) examines the link between an organization’s expectations for employee creativity and the employees’ confidence in their own creativity. Organizations must be attentive to this self-efficacy effect and develop strategies for supporting and enhancing not just creativity itself but individuals’ perceptions about themselves as creators.

The second article (Dr. Khawaja Saeed and colleagues) addresses the implementation of customer relationship management projects with an eye on organizational interventions. The paper extends the discussion of organizational attentiveness to include understanding the cultural change aspects of technology or process change.

The third paper shifts the discussion to the economy. Many economists and corporate leaders believed that the sluggish economy is due in large part to the level of economic and political uncertainty. This article (Dr. Bill Miles and Dr. Chu-Ping Vijverberg) addresses a facet of that uncertainty, inflation uncertainty. The paper examines the evolution of inflation and uncertainty about inflation in the U.S. economy.

Speaking of the economy, the fourth article (Dr. Jeff Quirin and colleague) examines the effect of layoffs by focusing on those remaining with the company, with specific attention to accountants in the firm. Procedural justice and interactive justice, and employees’ perceptions of how the company handled these, are important considerations for the survivors in a layoff environment.

The final article (Dr. Bob Ross and colleague) examines the evolution of retail or store brands in the competitive environment of manufacturer brands. Customer loyalty to the retail store plays a significant part in how amenable consumers are to choosing the store brand over the manufacturer’s brand.

We are very grateful to these authors for allowing us to distill their research for you and to Dotty Harpool who artfully developed and edited this publication. Many of you know Dotty through courses you attended as an undergraduate or graduate student in the Barton School, in her many roles including graduate studies, corporate liaison, etc., and through her expertise in training through the Center for Management Development.
THE BARTON SCHOOL RESEARCH CONNECTION

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To survive in a competitive marketplace, organizations cannot just rely on the superior technical skills of their employees. Creativity within the employee base is also a contributing factor to success. Dr. Steven Farmer, W. Frank Barton Distinguished Chair in Business, and his colleague Dr. Pamela Tierney of Portland State University, have recently studied the concept of employee creativity and the organizational factors that may enhance or inhibit creativity.

Steve and his co-author base their creativity research on “self-efficacy” theory. Creative self-efficacy is defined as an employee’s level of confidence that they can produce creative outcomes in the workplace. In earlier research, the authors found that firms need employees to have creative efficacy so that the organization can be innovative in the products or services they produce. The reason is simple. Because there is no roadmap to being creative at work, creative attempts often result in failure, and so being creative at work requires a high degree of persistence. Only workers who are confident in their creative abilities are likely to persist in the face of failure. But can an employee’s creative self-efficacy change over time? If so, what type of factors might contribute to this change and how could a company build creative efficacy? These are the questions investigated in this important research study. The authors tested how creative role identity (seeing oneself as a creative person), job creativity requirement, and supervisor expectation of employee creativity affect how an employee’s creative self-efficacy may change.

The authors used an interesting sample from which to collect data on this project. The participating organization used for the research was a non-profit, state-sponsored provider of services for vulnerable children and their families. Creativity is important at this type of organization as the employees are continuously faced with new challenges and problems and must resolve these situations with limited resources. The study was also longitudinal (across time) in nature, so that changes in creative self-efficacy could be measured.

The research findings showed that over a six month period, creative self-efficacy increased when there is an increase in an employee’s creative role identity. Thus, when employees felt that creativity was important part of their identity, their confidence in their creativity increased. Also contributing to an increase in creative self-efficacy was the expectation of creativity by the employee’s supervisor. As supervisor creativity expectations and beliefs in the employee’s ability to be creative increased, so did the employees confidence that they could be creative. Also discovered was that creative performance levels increased over a sixmonth period as an employee’s creative efficacy increased.

Surprisingly, as employees’ job requirements for creativity increased, their creative self-efficacy actually decreased. Thus the more the employee felt their job required creativity, the less confident they were in their creativity. This change over time could have occurred because of changes in the level of complexity of the challenges faced by an employee. One reason for this may be that an employee’s confidence level may temporary go down as they are faced with new and different challenges. Therefore, it may take some time for creative self-efficacy...
to return to an employee after a change in their job requirements.

Though relevant to for-profit organizations, this research study is especially salient for non-profits. Creativity can mean financial success for any type of organization but the employees at non-profit organizations must be creative in an often volatile environment using limited resources. And since the recommendations given in the article can be implemented with little or no cost, the study is applicable for both non-profit and for-profit management teams.

In summary, the research illustrates that organizations can shape, positively or negatively, an employee sense of efficacy. This can facilitate new organizational strategies that support and encourage creative efficacy. Especially important to organizations is the incorporation of efficacy building into leadership training programs. Managers and supervisors need to be aware of the effect they have on an employee’s creativity level and should work to maintain or enhance positive creative efficacy amongst their employees. But creativity training should not only be targeted to the management team. Employees should be provided training for creativity skill development and be given time to develop their creative self-efficacy when they are given new assignments or faced with new challenges. Findings of the study suggest that an organization can play a role developing employees’ sense of creative efficacy. The support and direction of a supervisor, well outlined job descriptions, and an environment that encourages creativity can lead to improved creative problem solving from an employee.


For more information on this research, contact: Dr. Steven Farmer at Steven.Farmer@wichita.edu

Dr. Steve Farmer, W. Frank Barton Distinguished Chair in Business, holds a PhD from the Georgia Institute of Technology. In the classroom, Dr. Farmer can be found teaching courses in business decision making, organizational behavior, and research methods. He has won numerous awards for his research in the areas of creativity, employee motivation, organizational politics, and the management of volunteers. Dr. Farmer can be reached at (316)978-6889 or via email at Steven.Farmer@wichita.edu.
A commonly accepted business theory is that “keeping a customer is cheaper than getting a new one.” This philosophy illustrates the need for businesses to maintain positive relationships with their customers. Using technology to manage these relationships is a relatively new methodology for succeeding in this venture. Organizations are implementing Customer Relationship Management (CRM) systems to enhance their abilities to sustain long term relationships with their suppliers and customers. Dr. Khawaja Saeed, Barton School Associate Management Information Systems Professor, has explored the implementation of CRM systems in research he has recently completed with two academic colleagues, Varun Grover of Clemson University and William Kettinger of the University of Memphis. Also contributing to this study was Subo Guha, Vice President of an information technology company, CA Technologies.

Khawaja and his colleagues suggest that there is a strongly held belief among managers that CRM system implementation will automatically transform an organization to become customer centric. Organizations view CRM system implementation as a technology implementation project and can fail to implement interventions that can assist in change management. The study investigated how the interventions of management during the planning and implementation of CRM systems can affect the success of those systems.

The researchers describe three common goals of CRM systems: better understanding of the customer base (supported by analytical systems); the opening of different channels of communication between customers and the organization (supported by integrated channel management systems); and the building of a knowledge base that supports offering an enhanced service experience to the customers (supported by customer interaction systems). As these are critical to the success of any organization, the successful implementation of a CRM system has never been more important.

So who contributes to successful CRM implementation? Khawaja and his co-researchers identify top management, IT management, the company employees affected by the new system, and customers as the key players in a successful implementation process. Problems created by any of these groups may result in an ineffective CRM process.

The authors examined the actual CRM system implementation process of several large multinational companies. One company is a large manufacturer and producer of computer products. Another is the world’s leading manufacturer and distributor of automotive tires while another is an industrial hard goods producer. Representatives of the companies were interviewed about “how” and “why” a CRM was implemented in their organization. The representatives also provided information on who was involved in the process. The performance data (project completion parameters, employee satisfaction, process improvement parameters) provided by the companies were used to categorize them into low, moderate, and high performance group. The authors followed a systematic process in assessing the differences in organizational interventions across these groups to identify the factors that contributed to success.

According to the data collected, active involvement of top management at all stages of implementation of a CRM system, total commitment from top and middle management, and open communication between the CRM team and affected employees are all found to contribute to the success of a CRM system. The projects that included these were much more likely to be successful. Projects that did not possess this level of commitment and involvement by management were unsuccessful. Also important to the successful implementation of a CRM project was the level of employee “buy-in” to the system. The companies where the CRM
was perceived by the employees to be an enhancement to their job, experienced a successful implementation. Alternatively, when employees perceived the CRM system to be a threat to their job security, the implementation process was unsuccessful.

The IT management team was also critical to the successful implementation of a CRM system. The IT team’s role in the creation of the system, their communication with ultimate users of the system, and overall role in implementation could make or break the new project. Successful implementation of a system was more likely to occur if the IT management had put together a CRM system that is perceived to be user friendly both by customers and employees. Access to relevant and timely information and the provision of tools required to serve the customers enhanced employee satisfaction and acceptance of a new system.

In successful CRM system implementations, the project team proactively addressed issues emerging from the change in roles and responsibilities within the organizations and in the interaction with the customers. Projects in which employees and customers were involved in development of new interaction processes showed higher success. The authors recommended that it is important to first engage in small steps aimed at trust building before embarking on a major Business to Business CRM system initiative.

In summary, the implementation of a CRM system is dependent on the actions of an organization’s leadership. Khawaja and his fellow authors found that top level managers must not just be the visionaries for a CRM project but must champion the project from development to implementation. Top and middle management’s role is to communicate with the employees as to the need and outcome of the CRM system and provide open lines of communication during the change process. Top level managers and IT managers need to make careful choices about what a CRM system contains. A system that is user-friendly and offers tools that are alignment with the needs of the employees and customers are much more likely to be successful. This research illustrates that success with CRM will come to companies who incorporate these strategies into their planning and implementation processes.

“Organizational Interventions and the Successful Implementation of Customer Relationship Management System Projects” will appear in an upcoming issue of The Database for Advances in Information Systems.

For more information on this research, contact: Dr. Khawaja Saeed at Khawaja.Saeed@wichita.edu.

Dr. Khawaja Saeed, received his PhD from the University of South Carolina. His award-winning research focuses on MIS and IT topics such as ERP systems, development and implementation of IT systems, and manufacturer-supplier dyads. In addition to serving as an IT consultant for local organizations, Khawaja teaches courses in data structures and management, MIS, and information technology. Dr. Saeed can be reached at (316) 978-7123 or via email at Khawaja.Saeed@wichita.edu.
The Causes Of Inflation Uncertainty Uncovered

These trying economic times may become even more trying if businesses have to manage the effects of inflation on future decision making. Barton School faculty members Dr. Bill Miles, Associate Professor of Economics and Dr. Chu-Ping Vijverberg, Assistant Professor of Economics, recently completed a study related to uncertainty about inflation rates in the United States. Inflation and deflation have received a great deal of attention in the business press during recent months. Bill and Chu-Ping have explored these concepts over the last few years.

In previous research, Bill and Chu-Ping have explored how and why inflation uncertainty has changed over the last decade. In their recent study, they investigated more current changes in the level, persistence, and uncertainty of U.S. inflation. Using the Consumer Price Index and, specifically, energy costs, Bill and Chu-Ping investigated how inflation uncertainty has changed over the years. They found that despite efforts to lower inflation in the 1980’s and 1990’s, uncertainty about inflation has risen significantly in the last decade. This is especially troubling to businesses as history has shown that inflation uncertainty will lower output of the business sector.

What has caused the increase in inflation uncertainty during the last decade? Bill and Chu-Ping believe that higher energy prices may play a significant role in this uncertainty. Another contributing factor to today’s inflation uncertainty is the global environment. The calm global environment in the 1990’s appears to have contributed to a reduction in the uncertainty. As the environment has become more volatile in the last decade, inflation uncertainty has increased.

The paper “Changing Inflation Dynamics in the United States” addresses the evolution of inflation, and inflation uncertainty in the United States. Uncertainty over the path of prices has important implications for the environment in which businesses operate. Most relevant is that uncertainty over the future path of prices has been shown to lower business spending on new plant and equipment.

Given reports that corporations are withholding $1.8 trillion from investment, this is a very relevant issue now. The Federal Reserve is engaged in unprecedented monetary expansions, through the resumption of quantitative easing (QE). The Fed is attempting to flood money markets with new liquidity. There could be some very positive effects
for business in the form of lower capital costs, and if prices pick up, a lower real debt burden. However, Economists are divided on other effects. Commodity prices in particular could rise as a result of QE, and Bill and Chu-Ping found commodity prices to be a major source of uncertainty.

Businesses that depend on commodities may suffer from higher uncertainty regarding future inflation. Even businesses that extract and sell commodities, and which would benefit from higher inflation should it materialize, may endure some indirect effects of greater uncertainty and difficulty in predicting the path of prices. Unfortunately, in the wake of a wrenching recession and continued financial imbalances, inflation uncertainty will likely remain high for the foreseeable future.

“Changing Inflation Dynamics and Uncertainty in the United States” was published in a recent edition of the Southern Economic Journal.

For more information on this research, contact either: Dr. Chu-Ping Vijverberg at Chuping.Vijverberg@wichita.edu or Dr. Bill Miles at William.Miles@wichita.edu
Unfortunately, in today’s economy layoffs are a fact of life for many businesses. Layoffs do not just affect those who lose their jobs. Accountant Dr. Jeff Quirin, W. Frank Barton Distinguished Chair in Business, and John Sweeney, Washington State University Accounting Professor, have recently explored the effects of layoffs on those employees remaining with the firm - the layoff survivors. Jeff and John’s recent research specifically studied organizational accountants who were survivors of a significant workforce reduction process.

The authors developed a comprehensive model of the relationship among layoff survivors’ perceptions, psychological states, attitudes and intentions. In collecting the data used in their research, Dr. Quirin and his colleague studied the effects of layoffs on 125 accountants/analysts who had survived a significant workforce reduction at a large U.S. aircraft company. As the Barton School is located in the “Air Capital of the World”, the study of the aircraft business is important to both Barton School faculty members but also to the Wichita community as a whole. This type of research illustrates the role Wichita State plays in the business community as WSU is the only metropolitan research university in the state of Kansas.

In analyzing the effects of layoffs on remaining employees, Dr. Quirin relied on past research that showed that layoffs have the potential to lead to job stress, disengagement from an organization, and negative attitudes among surviving employees. Prior research places the reduction of these negative outcomes on certain organizational strategies and environmental factors. Two of these key factors are the perception of procedural justice and interactional justice during a layoff period. Procedural justice relates to the perceived fairness of the formal layoff process. Procedural justice occurs during a downsizing if the processes, procedures, criteria used, and communication were deemed fair. Interactional justice relates to the treatment received by the employees from supervisors within an organization. Interactional justice would occur if the supervisor involved in a downsizing was perceived to exhibit empathy, sensitivity, and respectful during the process. Both of these concepts related to fairness and justice were evaluated during the study.

The researchers found that survivors’ perception of procedural justice reduced the feelings of job insecurity and increased job satisfaction levels. So if a survivor felt that the layoff process was fair and just, the more secure they felt about the future of their job and the more satisfied they were with that job. However, procedural justice was not found to affect job stress levels nor, interestingly, a survivor’s tendency to change employers.

When exploring the effects of interactional justice on surviving employees, Jeff and his colleague found that perceptions of interactional justice did reduce job stress and job insecurity levels. Survivors had higher levels of job satisfaction and lower intention to turnover when they felt their supervisors had treated the employees fairly during the process.

The authors also looked at how job insecurity, job stress, and job satisfaction may be interrelated. The study showed that higher job insecurity tends to
The Aftermath of Layoffs: Don’t Forget the Survivors

increase job stress and decrease a survivor’s commitment to their organization. The data also showed that survivors that had increased levels of job stress were less satisfied with their jobs. Job insecurity was shown to not significantly impact job satisfaction levels nor did job stress have much influence on the survivor’s commitment to the organization.

Dr. Quirin’s research illustrates the need for organizations to be cognizant of the employees that remain at the company after a significant downsizing. The survivors’ attitudes, job stress, job satisfaction, and intent to change employers can be affected by the layoff process. Employers should evaluate both procedural and interactional justice measures when implementing a layoff. Management can play an active role in influencing an employee’s attitude, reducing employee job stress, and decreasing the likelihood of a survivor to leave the company. Employees that believe a company that implements procedural and interactional justice during a significant downsizing are much more likely to remain productive and committed employees to the organization.

The article “Accountants as Layoff Survivors: A Research Note” has recently been published in Accounting, Organizations and Society. For more information on this research, contact: Dr. Quirin at Jeffrey.Quirin@wichita.edu

Dr. Jeff Quirin, W. Frank Barton Distinguished Chair in Business, received his PhD from the University of Nebraska. His research focuses on accounting benchmarking, activity-based costing, financial statement analysis, and oil and gas accounting. He teaches courses in financial accounting and financial reporting and is a licensed CPA. Dr. Quirin can be reached at (316)978-6528 or via email at Jeffrey.Quirin@wichita.edu.
Consumers Look To Private Brands During Tough Economic Times

Active Lifestyle, Equate, and Archer Farms have become popular brand names in the recent past. But what makes these brand names unique to the consumer marketing arena? These brand names are retailer (store) brand names — a branding strategy receiving a lot of attention during the economic downturn. Dr. Bob Ross, Barton School Associate Professor of Marketing, and Dr. Allan Broyles of California State University, Fullerton, have recently explored the importance of retailer brands and consumer loyalty toward this type of brand.

Successful consumer products in the past have most commonly used what are called manufacturer brands. These are brands that are created and maintained by the manufacturer of the products. Examples of manufacturer brands include Green Giant, M&M, Pepsi, and Crest. But these brands have recently experienced increased competition from the retail/store brands of stores like Dillon’s, Walmart, and Target. Bob and his co-author provide information on the importance of retail brands and manufacturer brands to customers, and of customers’ propensity to switch from manufacturer brands to retail brands. The study found new insights into the comparative significance of manufacturer and retail brands, with indications that retail brands pose perhaps a stronger threat to manufacturer brands than previously recognized. The study also found that customers’ attitudes toward store brands have significant influence on their purchase behaviors.

Manufacturer brand names have always been useful to customers because they can reduce customer risk and help simplify their decision processes. Now, this is also becoming true for retailer brands as customers are becoming more comfortable with, and are developing loyalty toward store brands. Recent statistics show that store brands account for over 20% of supermarket sales. Based on interest in their store brands, retailers like Walmart are now reviewing how much shelf-space manufacturer brands should actually have in their stores.

So what has contributed to growth of store brands? Bob and Allan attribute this growth on six key factors: store brands add diversity to a retailer’s product line; improved packaging and products increase the similarity of the store brands to the manufacturer brand; consumer perception that store brands provide adequate quality at reasonable prices; customers are placing less importance on manufacturer brands; retailers achieve greater profitability through the higher margins offered by store brands; and finally, having lower priced store brands provides leverage for a retailer when the retailer is negotiating lower prices from manufacturer brand marketers as retailers’ store brands sell for approximately 30% less than manufacturer brands.

When exploring the subject of branding, an important construct to include is an examination of brand loyalty. Also important is a customer’s attitude toward a brand. Brand loyalty relates to preference for a particular brand while attitude toward a brand is based on a consumer’s evaluation (positive or negative) of a brand. Both of these were included in the authors’ research of store brands.
According to this study, loyalty toward a retail store was found to positively influence a customer’s propensity to switch to a store’s private brand. Bob and Allan also discovered that store loyalty has a positive influence on individuals’ attitude toward store brands. So a Dillon’s loyal shopper will tend to have a positive attitude toward Dillon’s store brands. However, store loyalty cannot overcome a customer’s loyalty to a manufacturer’s brand. The research indicated that manufacturer brand loyalty is negatively associated with attitudes toward a store brand. For example, a consumer that is brand loyal to a manufacturer’s brand like Lay’s potato chips will have a less positive attitude toward Archer Farms potato chips.

The results of this research reinforce the importance of developing different marketing strategies for the two types of loyal customers, those loyal to a store and those loyal to a manufacturer brand. Retailers seeking increased sales of their store brands should focus their efforts on customers who are already loyal to the store. These are the customers that would be most likely to purchase a store brand instead of a manufacturer brand. In fact, encouraging manufacturer brand loyal customers to switch to store brands may be difficult. But these customers can still be loyal to the retailer and thus are an important target for other marketing efforts.

The article “The Comparative Significance of Customers’ Loyalty to Retail and Manufacturer Brands” was recently accepted for publication in the Journal of Product and Brand Management.

For more information on this research, contact: Dr. Bob Ross at Robert.Ross@wichita.edu

Dr. Bob Ross received his PhD from the University of Oklahoma. His research interests include marketing strategy, branding, distribution management, and marketing research techniques. Dr. Ross, an award winning instructor and marketing researcher, specializes in teaching introduction to marketing courses both at the graduate and undergraduate levels. Dr. Ross can be reached at (316) 978-3374 or via email Robert.Ross@wichita.edu.
The Barton International Group (B.I.G.) is an elite group of students from Wichita State’s Barton School of Business formed to help college students learn by doing, specifically in the realm of international business. B.I.G. partners with global companies to travel abroad and complete projects aimed at helping our clients become more successful in the global marketplace.

B.I.G. students strive to have a big effect on their partner companies. B.I.G. promises to provide partner companies with:

- **Contagious Enthusiasm**: Fueled by intrinsic motivation, the students work out of eagerness and excitement with the goal of igniting the same in others.
- **Fresh Ideas and Perspectives**: The students strive to provide creative insights unique to our generation.
- **Pure Communication**: Avoiding corporate biases, the students provide honest and straightforward information based on their research.
- **Faculty Advisors**: The students have access to guidance, resources, and instruction from top professors, who are experts in their respective fields.
- **Access to Top Business Recruits**: An investment in B.I.G. is an investment in a company’s future.
- **Bridging the Gap Between Cultures**: The universal approachability of students promotes effective communication.

In its two year existence, B.I.G. has provided consulting service to Spirit AeroSystems and the Coleman Company. They also teamed up with the Greteman Group and the Wichita Eagle to support a charitable holiday campaign. Whatever they tackle, these students have a BIG impact.

For more information about B.I.G., please contact Kate Kung-McIntyre, Assistant Dean of the Barton School of Business, at (316)978-6977 or via email at Kate.Kung-Mcintyre@wichita.edu.

Wichita State is the only Metropolitan University in the State of Kansas. Through academic and research programs, WSU works in collaboration with the government, business, non-profit and educational sectors in the greater Wichita area to develop human capital for the global economy, support educational innovation at all levels, promote public health and sustain communities. In 2009, WSU personnel were awarded more than 250 competitive sponsored research and outreach awards valued at over $43 million. Wichita State, which is classified by the Carnegie Foundation as a doctoral granting, high research institution, offers undergraduate and graduate degree programs in more than 200 areas of study.

The W. Frank Barton School of Business at Wichita State has been the driving force behind some of the brightest minds and biggest ideas of the past 100 years. Consistent with Wichita State’s role as an urban-serving institution, the Barton School aggressively pursues regional and national prominence for its academic and professional programs. The Barton School is one of only 12% of business schools worldwide that have achieved dual AACSB accreditation and offers fourteen undergraduate and four graduate degree programs, The school is home to Center for Economic Development, the region’s leading source for business, economic and demographic information, and the nationally recognized Center for Entrepreneurship.
In the spring of 2007, Wichita State University and regional leaders focused on developing strategies to accelerate the knowledge and innovations being generated in response to a new generation of composites-intensive aircraft designs and envisioned how these new high strength-to-weight materials, with excellent fatigue and corrosion resistance, could be more fully utilized within the region and migrated to additional industry sectors.

The United States Department of Labor awarded South Central Kansas a $5 million Workforce Innovations in Regional Economic Development (WIRED) grant to support high skilled and high wage careers. The Center for Economic Development and Business Research led the development of the grant proposal and directed the operations of the initiative as regional assets from private, non-profit, and government sources were leveraged to implement the transformational strategy.

“Talent Driving Prosperity” has been the WIRED tag line over the last three years. Through integration of education, workforce and economic development systems, regional leaders have been steering the south central Kansas regional economy toward accelerated materials and process transformation, thereby positioning our region to compete and win in the global economy. The initiative has:

- Updated educational and training curricula informed by research and development in collaboration with business and industry
- Supported applied research in aviation and health care
- Encouraged entrepreneurship
- Provided research tools for the region’s economic development community.

To position our region for a vital and prosperous economic recovery, the Composites Kansas WIRED Initiative empowered numerous agencies and individuals to align their resources and expand capacity. Among the many outcomes of the grant are:

- Training - nearly 2,900 individuals received training in advanced materials processes and techniques.
- Curricula - more than 50 curricula were developed in the areas of composites and advanced materials processes and repairs, entrepreneurship and business support, and more than 300 educators have been prepared for instructing these topics.
- Laboratory Facilities – two new training laboratories have been equipped for the National Center for Aviation Training – a composites laboratory and a non-destructive testing laboratory.
- Workforce Pipeline – career exploration education and training in science, technology, engineering and math have impacted and empowered more than 200 youth, many of whom are from underrepresented groups. In addition, nearly 250 technical professionals, who were trained in the pre-composite materials era, have had opportunities to upgrade their skills in composites and advanced materials processes.
- Economic Diversification – professional development to leverages the experience in advanced composites to grow a new medical device industry cluster with the Center of Innovation for Biomaterials in Orthopaedic Research (CiBOR).
- Collaboration – more than 100 regional partners have regularly convened across geographical, jurisdictional, and institutional boundaries to connect and work in concert with unity of purpose toward the Composites Kansas WIRED goals.

WIRED has spawned many new and creative training, education, support and outreach programs and activities within south central Kansas. For more information on WIRED, contact Debra Franklin at (316)978-3225.
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DECEMBER 2010