

# REGIONAL BUSINESS REVIEW

Booth College of Business and Professional Studies

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## ARTICLES:

Estimating the Market Price of Terrorism Risk

*Josephine Cruz Lugovskyy*

The Impact of Permanently Restricted Assets on Nonprofit Organizations'  
Investment Policy

*Patricia Hatfield, Sandra Richtermeyer, Shelly Webb*

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# *Articles*

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# Estimating the Market Price of Terrorism Risk

Josephine Cruz Lugovskyy  
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## ABSTRACT

Using a terrorism risk index based on the number of terrorist events that occurred within the United States between January 1971 and December 2010, I performed an analysis with a standard multifactor asset pricing model using both regression-based and generalized method of moments estimation techniques to examine terrorism risk premium. Results suggest terrorism risk is priced in U.S. financial markets and the associated risk premium is positive and significant. Separating the data into time periods before and after September 11, 2001 generates dissimilar results with risk premium after 9/11 practically nonexistent.

**Keywords:** asset pricing, risk premium, terrorism

## INTRODUCTION

Common perception maintains that there is a connection between terrorism and the economic prosperity of a country. It is further believed that this connection, which is visualized as a negative relationship between economic wealth and terror, is reflected in the financial markets. Although there is some evidence to substantiate this negative relationship, does that necessarily mean that terrorism causes economic and financial volatility? Or is terrorism merely a representation of changing political opinion reflected in changing economic policies, the effects of which realize themselves in the markets? This paper begins with the suggestion of the latter, that terrorist attacks are representations of shifting political opinions and policies, the outcomes of which are uncertain. It is with this notion that I investigate terrorism risk, as a representation of political risk and uncertainty.

I hypothesize that terrorism risk, as a proxy for underlying political risk, is a priced risk factor that significantly affects the securities markets. This

investigation discovers the terrorism risk premium by using a linear factor asset pricing model and a terrorism risk index based on the number of monthly domestic terror events within the United States. I find that terrorism risk is positively priced for non-industry returns between January 1971 and December 2010. Results, however, are inconsistent when the data are separated into time periods before and after September 11, 2001. This would suggest that the number of terrorist attacks may no longer be a concern in the American financial markets but perhaps notoriety is.

## RELATED LITERATURE

While there is some evidence to suggest that terrorism affects investment, previous analyses on terrorism and the financial markets largely focuses on general stock prices, stock market returns, and stock market volatilities. Arin, Ciferri, and Spagnolo (2008) find that terrorism significantly impacts the markets causing negative returns and increasing volatilities. This is supported by Chesney, Reshetar, and Karaman (2011) who discover various effects in the stocks, bonds, and commodities markets over an 11 year period. Karloyi and Martell (2010) report a drop in stock prices on the day of a terror event.

In terms of investor sentiment, Eldor and Melnick (2010) investigate the effect of terrorism-related news articles on the Tel Aviv Stock Exchange. They discovered that media coverage is another channel for terrorism to affect the stock market. The authors had also previously found, in 2004, that suicide attacks and the number of victims had a permanent effect in both the stock and foreign exchange markets suggesting that markets do not desensitize to terror (Eldor & Melnick, 2004). Drakos (2010) also addresses investor sentiment using a version of World CAPM (with a sample of 22 countries) concluding that returns are indeed lower on the day of a terrorist attack.

Other investigations into the relationship between terrorism and the markets focus on individual events such as the September 11 terrorist attacks on the World Trade Center, but not necessarily just within the American stock exchanges. After analyzing international stock markets, Charles and Darné (2006) find both persistent and temporary shocks indicating lingering, widespread effects from September 11. Drakos (2004) looks at the risk exposures of the airline industry discovering that the systematic risk (or betas) of airline stocks are affected along with idiosyncratic risk after September 11, 2001. This is echoed in Choudry (2005) who discovers the same effect across industries within the time-varying betas of different firms. With this evidence, hedging techniques are suggested in Gulley and Sultan (2006) and Karloyi (2008). Outcomes are varied: while Gulley and Sultan (2006) provide an alternative investment strategy, Karloyi (2008) isolates those firms with production facilities in high terrorism countries but finds little incentive for the hedge.



The terrorism risk premium, on the other hand, has never been directly measured by way of linear factor model estimation. This endeavor is the first exercise to assess terrorism risk and its effect on asset pricing. This research is significant because if terrorism is indeed representative of underlying political discontent and the related risk is significant, then it can be used as a proxy for political risk. It is from this perspective that I analyze terrorism.

## DATA

### Terror Events

The investigated data include terrorist events that occurred within the United States between 1970 and 2010 (I later drop the year 1970 as it proves to be a major outlier in the time series). These data are gathered from the Global Terrorism Database (GTD, 2014). The GTD was created and is maintained by the National Consortium for the Study of Terrorism and Responses to Terrorism, or START, and it is the largest, open-source database of terror events around the world. At the moment, the GTD lists more than 125,000 events encompassing more than 200 countries with as many as 120 variables of incident information.

To qualify for listing in the Global Terrorism Database, the terror event does not necessarily need to fit any specific criteria. This leaves the discernment of events to the researcher and the analysis at hand. However, the majority of the events generally fall into three categories, the descriptions of which I borrow from Lugovskyy (2014): it has either a “political, economic, religious, or social goal;” there is an “intention to coerce, intimidate, or convey a message to a larger audience;” and it is not considered an act of “legitimate warfare.” Incidentally, and unfortunately, the Database does not include events that were unsuccessful, halted by force, or encouraged by the state or government, although these events can have a significant effect on markets due to investors’ fearful reactions (see Eldor & Melnick, 2004; Eldor & Melnick, 2010; Drakos, 2010).

From this information, I create a simple count variable, which I refer to as the terrorism index. Each event is coded as ‘1’ and then summed over the course of a month creating a monthly time series of attacks that occurred within the United States between January 1971 and December 2010. I then portion the data into two subgroups: the time before September 11, 2001 and the time after. Neither group includes the month of September 2001 as the events of 9/11 alone marked a major turning point in U.S. history in terms of terror awareness and event significance and is thus another outlier.

## Returns and Factors

### *30 Industry Portfolios and 100 Portfolios*

I obtain portfolios from Kenneth R. French's data library over the monthly time period from January 1971 through December 2010 (French, 2015). I use both the 30 industry portfolios and the 100 portfolios formed on size and book-to-market value. The firms used to calculate the 30 industry portfolios are taken from the NYSE, AMEX, and NASDAQ. Each firm is assigned to a particular industry portfolio at the end of June based on its SIC code at that time. The 100 portfolios are sorted based on the intersections of ten portfolios formed on size and ten portfolios formed on the ratio of book-equity to market-equity.

### *Fama-French Factors*

In the seminal paper by Fama and French (1993), it was shown that the cross-section of average stock returns, and subsequently a large portion of systematic risk, can be explained by three common risk factors: an overall market factor, a factor related to firm size, and a factor related to firm book-to-market value. The market factor is calculated as the excess market return, or the value-weighted return on all NYSE, AMEX, and NASDAQ stocks minus the one-month Treasury bill rate. The firm factors are both calculated using six portfolios sorted based on size and book-to-market value and are meant to mimic those risk factors using portfolio returns. Size is calculated as the stock price times the number of shares. The size portfolio is created based on the monthly difference between the average returns of the small-stock portfolios and the average returns of the big-stock portfolios (Small-Big). The book-to-market portfolio is calculated similarly by first computing the ratio of the book value of the firm's stock to its market value. The portfolio is based on the difference between the average returns of the value portfolios minus the average returns of the growth portfolios (High-Low). The Fama-French factors are also obtained from Kenneth R. French's website for the same time period (French, 2015). I use these additional factors in this analysis as a control to test if they, along with the terrorism index, explain the cross section of returns.

## METHODOLOGY

I use the linear beta pricing model in this analysis. To set up the model, there are a few things that must first be mentioned. In practice, financial economists will use excess returns, or gross returns minus the risk-free rate, in analyses in an effort to isolate the additional risk premium that is awarded for holding onto assets that maintain risk as opposed to those that are risk-free. I follow the notation of Jagannathan, Schaumburg, and Zhou (2010). Denote by  $R_t$  a vector of returns in excess of the risk-free rate on  $N$  assets at time  $t$  and  $f_t$  as the vector of  $K$  economy-wide risk factors at time  $t$ . Now assume that returns follow the linear process:

$$R_{i,t} = \alpha_i + f_t' \beta_i + u_{i,t}, \quad i = 1, \dots, N; \quad t = 1, \dots, T \quad (1)$$

where the errors  $u_{i,t}$  are uncorrelated with the factors for all  $i$  with mean zero and  $\beta_i$  is the vector of betas, or factor loadings, for asset  $i$  which is given by:

$$\beta_i = E[(f_t - E[f_t])(f_t - E[f_t])']^{-1} E[(R_{i,t} - E[R_{i,t}])(f_t - E[f_t])], \quad (2a)$$

$$\Sigma_R = E[(R_{i,t} - E[R_{i,t}])(R_{i,t} - E[R_{i,t}])'], \quad (2b)$$

$$\Sigma_F = E[(f_t - E[f_t])(f_t - E[f_t])']. \quad (2c)$$

Using these assumptions, we require that expected, or average, returns equate to the following:

$$E[R_{i,t}] = a_0 + \lambda \beta_i, \quad i = 1, \dots, N \quad (3)$$

where  $\lambda$  is the vector of risk premia and  $a_0$  is a vector of constants (see Jagannathan, Schaumburg, & Zhou, 2010). This is called the linear beta pricing restriction and it is the basis for this model. The restriction suggests that average stock market returns are the result of the interactions between the factor loadings,  $\beta_i$ , and their associated risk premiums,  $\lambda$ .

To further explain, consider the factor loadings,  $\beta_i$ , as the representation of the relationship between the risk factors,  $f_t$ , and the returns,  $R_{i,t}$ , seen in Equation (1). For example, if  $\beta_1$  was found to be a negative value, then we would interpret that the risk factor  $f_1$  contributes negatively to average stock market returns. Since we interpret the betas as the relationship between the risk factors and the returns, then  $\lambda$  can be interpreted as the price of risk or the amount of compensation that investors require for holding onto assets with the risk factors  $f_t$  present. If  $\lambda$  is positive and significant, then we would say that there is a positive risk premium contribution for the associated factor. Or in other words, that the factor is “priced.” Because this risk factor exists, it requires additional compensation by investors.

## Cross-Sectional Regression

There are several methods to evaluate linear factor models, two of which I employ in this empirical investigation (I follow the notation of Jagannathan, Skoulakis, & Wang, 2010). The first is the simplest and most robust. Cross-sectional regression estimation is based on the Fama-MacBeth technique developed in Fama and MacBeth (1973) to assess the relationship between expected, or average, returns and factor betas (Jagannathan, Skoulakis, & Wang, 2010). It is performed in two passes, which is why it is generally referred to as “two-pass regression.” The first pass is a time series regression to estimate the relationship between the returns and the factor loadings (betas) over time. The second is a cross-sectional regression to measure the relationship between the factor loadings and average returns across assets.

For convenience of notation, let us reinterpret the beta restriction dropping the  $i$  subscript for the moment:

$$E[R_t] = a_0 \mathbf{1}_N + B\lambda = Xc \quad (4)$$

where:

$$X = [\mathbf{1}_N \ B]; \quad c = [a_0 \ \lambda']' \quad (5)$$

$X$  is a  $N \times (K + 1)$  matrix and  $c$  is a  $(K + 1)$  vector of risk premia. Then standard regression estimation (ordinary least squares or OLS) of  $c$  yields:

$$c = (X'X)^{-1}X'E[R_t] \quad (6)$$

Because we have simplified this notation, we can now estimate  $c$  using standard regression analysis. This will yield estimates for both  $\lambda$  and  $a_0$  simultaneously. Now, regression can be performed either with or without the constant  $a_0$ , seen in Equation (4). Per theory, this vector should equal the zero-vector and have no value (Cochrane, 2005). If regression is run allowing for estimation of the constant, then the parameter can be tested for significance. If the model is correctly specified, then  $a_0$  will have no statistically significant value (Jagannathan, Schaumburg, & Zhou, 2010). Most researchers prefer to estimate the constant along with the other parameters as a test of model validity. I use this test in the next section.

Of course, two-pass estimation is robust and easy to apply in large samples, however, it does impose assumptions that are not overly realistic and, the larger the problem, the second pass estimation requires the use of an estimated regressor causing the classic error-in-the-variables problem. There are several prescribed methods for compensating for this problem, of which I employ two. One method is to use portfolios instead of individual stocks as the testing assets (Jagannathan, Schaumburg, & Zhou, 2010). It is believed that the large number of stocks are estimated precisely enough to compensate for the error.

Another method is to use generalized least squares in the second pass of estimation.  $c$  is then formed as:

$$c = (X'QX)^{-1}X'QE[R_t] \quad (7)$$

where  $Q$  is positive definite  $N \times N$  matrix. This additional variance will estimate the parameters with tighter standard errors.

## Generalized Method of Moments Estimation

The assumptions and problems posed by the cross-sectional regression method make some researchers uncomfortable, so I also examine the cross section of returns using generalized method of moments estimation. This technique is appealing under more realistic assumptions because it allows for

serial correlation, the situation in which the errors are related over time—an assumption that is not allowed when using ordinary least squares regression, and conditional heteroskedasticity, when the variance of the data changes over time—also not allowed under OLS (see Jagannathan, Skoulakis, & Wang, 2010).

The generalized method of moments is further advantageous because it allows estimations of all model parameters in a single pass, eliminating the earlier error-in-the-variables problem, but it should be noted that GMM has been known to overreject models with small sample size and time series compared to other methods of estimation (Jagannathan, Skoulakis, & Wang, 2010). In most applications, GMM is performed either in two stages or iteratively, the difference being the number of times the weighting matrix is reestimated. For this analysis, I employ two-step GMM for its simplicity. As a further test of the model's validity, I use GMM to compute the *J*-statistic:

$$J_T = T_{gT} (\hat{H}_T)' S_{TgT}^{-1} (\hat{H}_T) \xrightarrow{(D)} \chi^2(N - K) \text{ as } T \rightarrow \infty, \quad (8)$$

which is  $\chi^2$  in asymptotic distribution. Results can be interpreted similar to a *p*-value test and will indicate whether the model is correctly specified.

## EMPIRICAL RESULTS

### Summary Statistics

Using the information concerning monthly domestic terrorist events within the United States between January 1970 and December 2010, I calculate the summary statistics for the total time period, and before and after September 11. Looking at the summary statistics in Table 1, it is apparent that a sizeable share of terrorist events occurred before September 11, 2001. For a period of 368 months, not including the year 1970, the total number of terror events before 9/11 is 1739, out of a possible 2359 for the entire time period of 492 months. The average number of monthly events before 9/11 is not too different from the total average at 4.73 and 4.79, respectively. Standard deviation is also similar at 5.00 events before September 11 and 7.59 for the total time period.

The time period after September 11, 2001, however, maintains noticeably different results. The duration of 111 months is not even half the size of the time period before 9/11, not including the month of September 2001. The shorter time series also yields a smaller number of events at 156 with a smaller average number of monthly events at 1.41 and standard deviation of 2.47 events. These markedly different results for the time period subsets comes as little surprise as the occurrence of the September 11 terror attacks is not the median event of the total time series. However, the notion that the number of terrorist events within the United States has increased since 9/11 is incorrect. In fact, terrorism seems to be on the decline.

Notice that the maximum number of monthly events for the total time series is 65, while the maximum number of events for the time periods before and after September 11 are 38 and 20, respectively. Indeed, April 1970 saw the most terrorism at 65 events with other months of 1970 experiencing numbers as high as 62, 55, and 49 events. For this reason, I eliminate the year 1970 from the period before 9/11.

**Table 1: Summary Statistics for the Terrorism Index**

| <b>Terrorism Index</b> | <b>Full Time Series</b> | <b>Before<br/>Sept. 11, 2001</b> | <b>After<br/>Sept. 11, 2001</b> |
|------------------------|-------------------------|----------------------------------|---------------------------------|
| Date Range             | Jan. 1970–Dec. 2010     | Jan. 1971–Aug. 2001              | Oct. 2001–Dec. 2010             |
| Period (Months)        | 492                     | 368                              | 111                             |
| Total Events           | 2359                    | 1739                             | 156                             |
| Mean                   | 4.795                   | 4.726                            | 1.405                           |
| Standard Deviation     | 7.594                   | 5.001                            | 2.473                           |
| Minimum                | 0                       | 0                                | 0                               |
| Maximum                | 65                      | 38                               | 20                              |

Note: Data are obtained from the Global Terrorism Database sponsored by the National Consortium for the Study of Terrorism and Responses to Terrorism from the University of Maryland. Events include those that occurred within the domestic United States between January 1970 and December 2010, recorded on a monthly basis.

**Cross-Sectional Regression**

Two-pass least squares regression yields incongruent results for the 30 industry portfolios and the 100 industry portfolios. For the 30 industry portfolios, the terrorism index is not priced, save for the time after September 11, 2001 where it maintains mild significance in the presence of the Fama-French factors (see Table 2). This means that, according to this analysis, terrorism risk is not a systematic risk factor for industry-related securities. Interestingly, in all time periods, the constant is only statistically no different from zero three times. This suggests that the model is invalid and the factors are misspecified.

In the time after September 11, the second scenario (which includes only the terrorism index and the market return) performs the best with both factors maintaining significance and the constant invalid, but the results for the analysis for the full time series should reflect the results of the subset if they are valid, which it does not. Although the terrorism index does not do well to explain the cross section of the industry portfolios, neither do the Fama-French factors.

Unlike the 30 industry portfolios, for the 100 portfolios, the terrorism index factor for the total time period and the time before 9/11 is significant and positive. Results for the 100 portfolios in Table 3 are consistent with the

expectation that terrorism risk is significantly priced, although that price is surprisingly high with, at times, an additional return of almost 8% for terrorism risk! The market factor performs well when combined with the size factor, however, the book-to-market equity factor only performs well when the market factor is excluded from the model. The constant term is also significantly different from zero in all three time periods. This means that although the model indicates that terrorism risk does contribute to the pricing of stock market securities, the validity of the constant parameter calls the specificity of the model into question.

**Table 2: Risk Premia ( $\lambda$ ) Results Using Cross-Sectional Regression Estimation– 30 Industry Portfolios**

| Time Period                                 | Terrorism Index   | Market            | Small-Big            | High-Low          | Constant            |
|---|-------------------|-------------------|----------------------|-------------------|---------------------|
| Jan. 1971–<br>Dec. 2010                     | 0.655<br>(0.85)   |                   |                      |                   | 0.581***<br>(18.24) |
|   | 0.838<br>(1.02)   | -0.09<br>(-0.62)  |                      |                   | 0.669***<br>(4.60)  |
|   | 0.749<br>(0.87)   |                   | -0.085<br>(-0.81)    | -0.002<br>(-0.01) | 0.619***<br>(11.59) |
|   | 0.536<br>(0.55)   | 0.171<br>(0.48)   | -0.187<br>(-0.79)    | 0.003<br>(0.03)   | 0.98***<br>(1.93)   |
| Jan. 1971–<br>Aug. 2001<br>(Before 9/11/01) | 0.086<br>(0.12)   |                   |                      |                   | 0.578***<br>(16.09) |
|   | 0.278<br>(0.34)   | -0.079<br>(-0.44) |                      |                   | 0.651***<br>(3.87)  |
|   | 0.09<br>(0.13)    |                   | -0.331***<br>(-2.77) | -0.221<br>(-1.98) | 0.599***<br>(11.92) |
|   | -0.395<br>(-0.52) | 0.412<br>(1.29)   | -0.49***<br>(-2.90)  | -0.142<br>(-1.13) | 0.304<br>(1.30)     |
| Oct. 2001–<br>Dec. 2010<br>(After 9/11/01)  | 1.323*<br>(1.79)  |                   |                      |                   | 0.755***<br>(7.99)  |
|   | 1.443**<br>(2.14) | 0.617**<br>(2.50) |                      |                   | 0.093<br>(0.33)     |
|   | 1.534*<br>(1.83)  |                   | 0.343<br>(1.55)      | 0.096<br>(0.31)   | 0.423**<br>(2.24)   |
|   | 1.57*<br>(1.92)   | 0.679<br>(1.33)   | -0.084<br>(-0.22)    | 0.079<br>(0.26)   | 0.05<br>(0.15)      |

Notes: Two-pass regression using monthly excess returns: OLS first pass, GLS second pass. z-statistics are reported in parenthesis below regression estimates. \*\*\* $p < .01\%$  level, \*\* $p < .05$ , and \* $p < .10$ . Terrorism index calculated using data obtained from the Global Terrorism Database. 30 industry portfolios and Fama-French factors obtained from Kenneth R. French’s website.

For the total time period, the terrorism risk premium is considerably larger than the premia for the other factors. This is also true for the time period before September 11, although this risk premium is just slightly larger than for the full time series. The lack of terrorist events since that fateful day might explain the smaller risk premium. The risk premium further decreases when the other factors are included in the model. After 9/11, risk premium is not much larger than zero, but much more in line with the other factors. This result implies that investors now require less return for holding onto risky portfolios. Perhaps investors are less afraid of terrorism and more confident in the market's ability to recover since September 11. Notice also that in the fourth scenario the terrorism index is priced in the presence of the Fama-French factors.

**Table 3: Risk Premia ( $\lambda$ ) Results Using Cross-Sectional Regression Estimation- 100 Portfolios**

| Time Period                                 | Terrorism Index     | Market               | Small-Big          | High-Low           | Constant            |
|---|---------------------|----------------------|--------------------|--------------------|---------------------|
| Jan. 1971–<br>Dec. 2010                     | 6.017***<br>(17.57) |                      |                    |                    | 0.579***<br>(10.50) |
|   | 6.293***<br>(19.90) | -1.507***<br>(-4.65) |                    |                    | 2.186***<br>(6.25)  |
|   | 5.702***<br>(17.80) |                      | 0.458***<br>(3.88) | 0.739***<br>(5.96) | 0.435***<br>(4.35)  |
|   | 5.609***<br>(19.79) | -2.67***<br>(-5.31)  | 0.78***<br>(6.47)  | 0.198<br>(1.33)    | 2.817***<br>(6.16)  |
| Jan. 1971–<br>Aug. 2001<br>(Before 9/11/01) | 7.336***<br>(14.05) |                      |                    |                    | 0.467***<br>(5.73)  |
|   | 7.784***<br>(16.05) | -1.889***<br>(-4.57) |                    |                    | 2.424***<br>(5.57)  |
|   | 6.735***<br>(13.47) |                      | 0.766***<br>(4.30) | 1.027***<br>(5.56) | 0.434***<br>(3.30)  |
|   | 6.842***<br>(15.26) | -4.004***<br>(-4.97) | 0.969***<br>(5.89) | -0.171<br>(-0.58)  | 3.773***<br>(5.53)  |
| Oct. 2001–<br>Dec. 2010<br>(After 9/11/01)  | 0.142<br>(0.49)     |                      |                    |                    | 0.781***<br>(21.39) |
|   | 0.108<br>(0.37)     | 0.293<br>(1.42)      |                    |                    | 0.446*<br>(1.87)    |
|   | 0.323<br>(1.28)     |                      | 0.319***<br>(4.25) | 0.229***<br>(2.85) | 0.24**<br>(2.49)    |
|   | 0.533**<br>(2.21)   | -0.92***<br>(-3.91)  | 0.54***<br>(6.00)  | 0.321***<br>(4.09) | 0.959***<br>(4.68)  |

Two-pass regression using monthly excess returns: OLS first pass, GLS second pass. z-statistics are reported in parenthesis below regression estimates. \*\*\* $p < .01$ , \*\* $p < .05$ , and \* $p < .10$ . Terrorism index calculated using data obtained from the Global Terrorism Database. The 100 portfolios and Fama-French factors obtained from Kenneth R. French's website.



## Generalized Method of Moments Estimation

The results from two-stage generalized method of moments estimation are not too dissimilar numerically from the results of the cross-sectional regression. For the 30 industry portfolios, the terrorism index is unpriced throughout. This conflicts with the previous research by Choudry (2005) and Berrebi and Klor (2010) who discover the effects of terrorism reflected in industry returns. Interestingly, the model performs well in the time period since 9/11, but only when the market factor is the only factor present. Constants are mostly different from zero.

**Table 4: Risk Premia ( $\lambda$ ) Results Using Generalized Method of Moments Estimation– 30 Industry Portfolios**

| Time Period                                    | Terrorism Index   | Market              | Small-Big            | High-Low            | Constant            | J-Statistic             |
|--|-------------------|---------------------|----------------------|---------------------|---------------------|-------------------------|
| Jan. 1971–<br>Dec. 2010                        | 0.367<br>(0.96)   |                     |                      |                     | 0.577***<br>(0.035) | 0.765<br>( $p = .682$ ) |
|  | 0.408<br>(0.819)  | -0.010<br>(0.123)   |                      |                     | 0.672***<br>(0.142) | 1.445<br>( $p = .836$ ) |
|  | 0.656<br>(0.896)  |                     | -0.069<br>(0.082)    | -0.033<br>(0.087)   | 0.571***<br>(0.051) | 3.98<br>( $p = .679$ )  |
|  | 0.031<br>(1.007)  | 0.157<br>(0.24)     | -0.172<br>(0.18)     | -0.05<br>(0.081)    | 0.472***<br>(0.165) | 3.835<br>( $p = .872$ ) |
| Jan. 1971–<br>Aug. 2001<br>(Before<br>9/11/01) | -0.058<br>(0.63)  |                     |                      |                     | 0.59***<br>(0.039)  | 1.797<br>( $p = .407$ ) |
|  | -0.059<br>(0.628) | -0.076<br>(0.17)    |                      |                     | 0.672***<br>(0.165) | 4.021<br>( $p = .403$ ) |
|  | 0.031<br>(0.551)  |                     | -0.333***<br>(0.102) | -0.226**<br>(0.095) | 0.607***<br>(0.046) | 4.527<br>( $p = .606$ ) |
|  | -0.555<br>(0.60)  | 0.308<br>(0.231)    | -0.411***<br>(0.143) | -0.174*<br>(0.092)  | 0.372**<br>(0.162)  | 6.056<br>( $p = .641$ ) |
| Oct. 2001–<br>Dec. 2010<br>(After<br>9/11/01)  | 0.553<br>(0.687)  |                     |                      |                     | 0.732***<br>(0.094) | 0.881<br>( $p = .644$ ) |
|  | 0.794<br>(0.64)   | 0.477***<br>(0.166) |                      |                     | 0.292<br>(0.183)    | 2.67<br>( $p = .615$ )  |
|  | 0.675<br>(0.717)  |                     | 0.309*<br>(0.185)    | -0.019<br>(0.234)   | 0.465***<br>(0.146) | 1.289<br>( $p = .972$ ) |
|  | 0.876<br>(0.647)  | 0.608**<br>(0.288)  | -0.187<br>(0.27)     | 0.192<br>(0.251)    | 0.187<br>(0.162)    | 4.731<br>( $p = .786$ ) |

Standard errors are reported in parenthesis below GMM regression estimates. \*\*\* $p < .01$ , \*\* $p < .05$ , and \* $p < .10$ . Terrorism index calculated using data obtained from the Global Terrorism Database. The 30 industry portfolios and Fama-French factors obtained from Kenneth R. French's website.

For the 100 portfolios, GMM estimation prices terrorism positively throughout the full time series and before 9/11. But notice that for the time period after

September 11, the terrorism index premium is significantly priced when the Fama-French factors are also present. This is consistent with the cross-sectional regression results. Perhaps it is indicative of a small amount of political risk in the time since 9/11. The cross-sectional results are further upheld when we notice that the terrorism risk premium is also surprisingly large relative to the other premia.

The *J*-statistic is calculated to assess each individual model's validity. The null hypothesis for the *J*-statistic, that the model is correctly specified, is rejected throughout for both sets of portfolios. This can be evaluated using the associated *p*-values, which are never statistically significant.

**Table 5: Risk Premia ( $\lambda$ ) Results Using Generalized Method of Moments Estimation– 100 Industry Portfolios**

| Time Period                                    | Terrorism Index      | Market               | Small-Big           | High-Low            | Constant            | <i>J</i> -Statistic         |
|--|----------------------|----------------------|---------------------|---------------------|---------------------|-----------------------------|
| Jan. 1971–<br>Dec. 2010                        | 5.315***<br>(1.002)  |                      |                     |                     | 0.604***<br>(0.046) | 1.733<br>( <i>p</i> = .421) |
|  | 5.251***<br>(0.946)  | -1.299***<br>(0.314) |                     |                     | 1.987***<br>(0.319) | 3.37<br>( <i>p</i> = .498)  |
|  | 4.997***<br>(1.121)  |                      | 0.448***<br>(0.147) | 0.758***<br>(0.716) | 0.469***<br>(0.101) | 5.758<br>( <i>p</i> = .451) |
|  | 5.639***<br>(0.644)  | -1.474*<br>(0.796)   | 0.633***<br>(0.205) | 0.481***<br>(0.139) | 1.759***<br>(0.643) | 6.525<br>( <i>p</i> = .589) |
| Jan. 1971–<br>Aug. 2001<br>(Before<br>9/11/01) | 5.99***<br>(1.849)   |                      |                     |                     | 0.535***<br>(0.061) | 1.842<br>( <i>p</i> = .398) |
|  | 5.741***<br>(1.671)  | -1.499***<br>(0.297) |                     |                     | 2.09***<br>(0.279)  | 2.935<br>( <i>p</i> = .569) |
|  | 5.489***<br>(1.995)  |                      | 0.635**<br>(0.281)  | 1.007***<br>(0.323) | 0.578***<br>(0.115) | 4.471<br>( <i>p</i> = .613) |
|  | 6.635***<br>(1.332)  | -1.459<br>(1.37)     | 0.714**<br>(0.288)  | 0.549<br>(0.488)    | 1.74<br>(1.073)     | 4.975<br>( <i>p</i> = .760) |
| Oct. 2001–<br>Dec. 2010<br>(After<br>9/11/01)  | 0.185<br>(0.355)     |                      |                     |                     | 0.783***<br>(0.036) | 0.137<br>( <i>p</i> = .934) |
|  | 0.202<br>(0.33)      | 0.309<br>(0.217)     |                     |                     | 0.43*<br>(0.257)    | 0.615<br>( <i>p</i> = .961) |
|  | 0.4192***<br>(0.295) |                      | 0.275***<br>(0.091) | 0.246***<br>(0.095) | 0.294***<br>(0.114) | 3.915<br>( <i>p</i> = .688) |
|  | 0.616**<br>(0.308)   | -0.899***<br>(0.261) | 0.492***<br>(0.101) | 0.333***<br>(0.083) | 0.995***<br>(0.237) | 4.027<br>( <i>p</i> = .855) |

Standard errors are reported in parenthesis below GMM regression estimates. \*\*\**p* < .01, \*\**p* < .05, and \**p* < .10. Terrorism index calculated using data obtained from the Global Terrorism Database. 100 industry portfolios and Fama-French factors obtained from Kenneth R. French's website.

The inconsistent results between the portfolios are intriguing. It is possible that industry portfolios are not as affected by terrorism risk as nonindustry portfolios? Since we are analyzing terror as a type of political uncertainty, its effect on portfolios should be systematic, meaning, it should affect all stock market securities regardless of industry. It is also possible that the smaller set of testing portfolios suffers from the small sample bias of the second method of estimation, GMM, but without a more persuasive argument, there is nothing more than an inconclusive result for the data segregation.

## CONCLUSION

It has been argued that terrorism is suggestive of alterations in the deeper economic fundamentals and thus representative of greater political risk, so it is in this context that I analyze terror. According to both cross-sectional regression analysis and generalized method of moments estimation techniques, terrorism risk is systematic and priced in the American financial market from January 1971 to December 2010 for nonindustry returns. But this conflicts with previous research on the topic of industry-specific effects.

Results further contrast when the data are separated into time periods before and after September 11, 2001. The lack of terrorism risk in the latter period could suggest either measurement error of the terrorism index, incorrect assessment method, or both. Future research should include alternative measures of the terrorism index. A proper mimicking portfolio might be an avenue for further inspection. Mimicking portfolios have been shown to perform better in financial analysis than nontraded factors, so the creation of a portfolio that mimics for terrorism risk using stock returns might yield even more interesting results (see Balduzzi & Robotti, 2008; and Balduzzi & Robotti, 2010). Using the S&P 500, Karloyi (2008) develops his own set of “terrorism portfolios” and uses them to derive two terrorism-related investment strategies: the first is a portfolio of S&P 500 stocks assembled based on terrorism risk scores and the second is terrorism-related risk exposure portfolios. Both of these could be used as a stand-in for terrorism risk.

The outcome concerning risk premium in the time period after 9/11 could also suggest that the number of terrorist attacks may no longer be a concern in the American financial sector. So is terrorism risk, and subsequently political risk, unnecessary in the pricing of financial assets? Or are investors just less afraid of terrorism since the epic attacks on the World Trade Center? One answer is, yes, investors are less afraid in the time since September 11, 2001 now that there is more awareness and policing of terror activity than in previous decades. On the 10<sup>th</sup> anniversary of September 11, *USA Today* announced recent findings of its Gallup poll demonstrating a ten year low in American fear of an impending terrorist attack but with little explanation as to why (Saad, 2011). While Americans are less concerned with terrorism, it is not due to an overconfidence in the protection provided by the American government. The Gallup poll also

indicates that confidences in the Departments of Defense, Homeland Security, and State are not as great as they were in the time just after 9/11.

And yet another possible explanation is that with the increased, widespread attentiveness to terrorism and terror activity, investors are not so startled by the sheer number of domestic terror events but rather the national importance of individual events, such as September 11 itself or, more recently, the Boston Marathon bombing in 2013. In 2009, the *Washington Times* published an article stating that the events of September 11, 2001 while tragic, were only one of more than 1,000 events in the U.S. since the 1970s, information that is supported by the GTD data (see Harper, 2009; GTD, 2014). The author suggests that the reaction to the event, the public perception and the stress and anxiety induced, has more of an effect on the national opinion of what constitutes terrorism and not necessarily the number of events (this would support the findings of Eldor & Melnick, 2010 and Drakos, 2010). So perhaps this particular measure of terrorism risk in the time after September 11 is inaccurate. A measure that employs the significance of individual events or the effects of terrorism could yield interesting results.

## REFERENCES

- Arin, K. P., Ciferri, D., & Spagnolo, N. (2008). The price of terror: The effects of terrorism on stock market returns and volatility. *Economics Letters*, 101, 164–167.
- Balduzzi, P. & Robotti, C. (2008). Mimicking portfolios, economic risk premia, and tests of multi-beta models. *Journal of Business & Economic Statistics*, 26(3), 354–368.
- Balduzzi, P. & Robotti, C. (2010). Asset pricing models and economic risk premia: A decomposition. *Journal of Empirical Finance*, 17(1), 54–80.
- Berrebi, C. & Klor, E. (2010). The impact of terrorism on the defense industry. *Economica*, 77(307), 518–543.
- Charles, A. & Darné, O. (2006). Large shocks and the September 11th terrorist attacks on international stock markets. *Economic Modelling*, 23(4), 683–698.
- Chesney, M., Reshetar, G. & Karaman, M. (2011). The impact of terrorism on financial markets: An empirical study. *Journal of Banking & Finance*, 35(2), 253–267.
- Choudry, T. (2005). September 11 and time-varying beta of United States companies. *Applied Financial Economics*, 15(17), 1227–1242.
- Cochrane, J. (2005). *Asset Pricing: Revised Edition*, Princeton University Press, Princeton.
- Drakos, K. (2004). Terrorism-induced structural shifts in financial risk: Airline stocks in the aftermath of the September 11th terror attacks. *European Journal of Political Economy*, 20(2), 435–446.
- Drakos, K. (2010). Terrorism activity, investor sentiment, and stock returns. *Review of Financial Economics*, 19(3), 128–135.
- Eldor, R. & Melnick, R. (2004). Financial markets and terrorism. *European Journal of Political Economy*, 20(2), 367–386.
- Eldor, R. & Melnick, R. (2010). Small investment and large returns: Terrorism, media and the economy. *European Economic Review*, 54(8), 963–973.
- Fama, E. & MacBeth, J. D. (1973). Risk, return and equilibrium: Empirical test. *Journal of Political Economy*, 81(3), 607–636.
- Fama, E. & French, K. R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics*, 33(1), 3–56.
- French, K.R. (2015). U.S. research returns data. *Dartmouth College*. Retrieved from [http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\\_library.html](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html).
- GTD (2014). Global terrorism database, START: National consortium for the study of terrorism and responses to terrorism. *University of Maryland*. Retrieved from <http://www.start.umd.edu/gtd/>

- Gulley, O. D. & Sultan, J. (2006). Risk premium, volatility, and terrorism: New evidence, in M. J. Morgan (ed) (2009), *The Impact of 9/11 on Business and Economics: The Business of Terror*, Palgrave Macmillan, New York, Chapter 13, 185–212.
- Harper, J. (2009). 9-11 misleads Americans view of terrorism, *The Washington Times*, Retrieved from <http://www.washingtontimes.com/news/2009/may/28/911-misleads-americans-view-of-terrorism/>
- Jagannathan, R., E. Schaumburg, & Zhou, G. (2010). Cross-sectional asset pricing tests. *Annual Review of Financial Economics*, 2, 49–74.
- Jagannathan, R., Skoulakis, G. & Wang, Z. (2010). The analysis of the cross-section of security return. In Y. A`it-Sahalia & L.P. Hansen (eds.) *Handbook of Financial Econometrics: Volume 2 Applications*, North-Holland, Amsterdam, Chapter 14, 73–134.
- Karloyi, G. A. (2008). An assessment of terrorism-related investing strategies. *Journal of Portfolio Management*, 34 (4), 108-123.
- Karloyi, G. A. & Martell, R. (2010). Terrorism and the stock market. *International Review of Applied Financial Issues and Economics*, 2(2), 285–314.
- Lugovskyy, J. (2014). The economic determinants of terrorism. *International Journal of the Academic Business World*, 8(2), 51–61.
- Saad, L. (2011). Americans' fear of terrorism in U.S. is near low point. *USA Today/Gallup Poll*, Gallup Inc. Retrieved from <http://www.gallup.com/poll/149315/americans-fear-terrorism-near-low-point.aspx>.

# The Impact of Permanently Restricted Assets on Nonprofit Organizations' Investment Policy

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## **ABSTRACT**

Little work has been done to determine strategic factors driving the investment policies of nonprofit organizations. Nonprofit organizations invest excess funds in a variety of assets. Investment policies should be of concern to donors since it reflects how conservatively or aggressively excess funds, which serve to supplement revenues when shortages occur, are being invested. The ways these funds are invested help determine the financial viability of a nonprofit organization in the event of an economic downturn. Nonprofit organizations hold three types of assets: unrestricted, temporarily restricted, and permanently restricted, as specified by the donor. The only assets or investments the nonprofit organization has ready access to are unrestricted assets. It is our assertion nonprofit organizations holding a high proportion of permanently restricted assets carry increasing financial vulnerability in the event of a revenue shortfall since they do not have the ability to liquidate these assets. Our results support the idea that nonprofit organizations that hold a higher proportion of permanently restricted assets tend to invest their unrestricted assets in lower risk securities. Thus, the level of restricted assets serves as a strategic influence in shaping the investment policies of nonprofit organizations.

**Keywords:** nonprofits, investment policy, net assets, permanently restricted assets, strategy

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## INTRODUCTION

Nonprofit donors can readily find sources, such as [charitynavigator.org](http://charitynavigator.org) and [guidestar.org](http://guidestar.org), which provide important information to donors to help them discern how to allocate their funds. These websites disclose pertinent financial performance metrics, such as the percentage of funds that go directly toward program expenses used to support the nonprofit organization's (NPO's) mission, as well as the proportion of funds spent on administrative and fundraising expenses. They provide a breakdown of the sources of revenues: total revenue, total expenses, and the excess or deficit revenue figures for the year, as well as qualitative managerial information. Prior research supports the notion that program spending ratios are of primary concern to donors in determining to which charity to donate. Donors prefer to see a high percentage of their contributions routed directly to the NPO's mission (Greenlee & Brown, 1999; Tinkelman, 1999).

However, donors should also be informed as to the financial stability of NPOs in case they were to experience a decline in revenues, as most NPOs experienced in 2009. For many NPOs, revenues can be somewhat volatile. Some years, NPOs experience a revenue deficit and other years they may experience a revenue surplus allowing them to invest excess funds in assets (Calabrese 2012; Chang & Tuckman, 1990). These assets, or investments, serve as a buffer during economic downturns and help NPOs continue to carry out their missions in the event of revenue shortfalls. The financial notes of the NPO's audited financial statements as well as IRS Form 990, which NPOs are required to file each year, provide asset information so stakeholders can obtain information regarding the NPO's investment policy.

NPOs hold three types of assets: unrestricted, temporarily restricted, and permanently restricted. An NPO only has ready access to unrestricted net assets. These may consist of cash or investments made from surplus funds resulting from donations, revenues from program services, and investment income, as well as other sources. This money is available for use by the NPO if the need arises. Temporarily restricted assets are set aside for a specific purpose as specified by the donor or as a result of a grant intended for a specific use to be spent at the appropriate time. These funds are usually released within a year or two but, until then, the asset is illiquid and not available for other uses to the NPO. Permanently restricted assets given by a donor may not be dispersed or liquidated by the NPO and must be used for a specific purpose as required by the donor. An example of a permanently restricted asset may be a piece of real estate that must be used as the donor specified. Another example of a permanently restricted asset may be an endowment. In this case, the money will be invested and the earnings of the endowment would be used as specified by the donor. The financial footnotes in the annual report of an NPO provide a detailed explanation of any restricted assets the organization is holding and the nature of the stipulations imposed. Since permanently restricted assets cannot be



liquidated to provide revenues in the event of a shortage, it is our hypothesis that organizations that have a higher proportion of permanently restricted assets tend toward a more conservative investment policy with their surpluses to ensure they have enough cash assets to cover their program expenses.

## **PERMANENTLY RESTRICTED ASSETS AND RISK**

The required financial statements for NPOs under Generally Accepted Accounting Principles (GAAP) have many key differences when compared to the requirements of most for-profit entities. GAAP requires NPOs to include a Statement of Financial Condition, Statement of Financial Activities, Statement of Cash Flows, and Notes to the Financial Statements. The Statement of Financial Condition lists assets and liabilities; however, it does not include an equity section since NPOs do not have stockholders. Thus the balance sheet equation for an NPO is:

$$\text{Assets} = \text{Liabilities} + \text{Net Assets}$$

NPOs' restricted and unrestricted net assets can be considered analogous to retained earnings for a for-profit corporation (McCarthy, Shelmon, & Mattie, 2012).

Some NPOs tend to have a higher proportion of their assets tied up in permanently restricted assets than others. These NPOs should invest surplus funds conservatively to help smooth revenue fluctuations since they cannot liquidate permanently restricted assets. Unrestricted assets can be liquidated when needed and provides a financial buffer for NPOs in the event of a cash shortfall. The purpose of this study is to provide some insight into some possible factors that shape the investment policy for NPOs. We examine whether there is a relationship between the level of restricted assets held by an NPO and the risk of the unrestricted asset investments held by the organization.

To test this hypothesis, it is necessary to reclassify each NPO's investments in accordance with the traditional financial definition of risk. For accounting purposes NPOs are required to report investments in the financial statements at their fair market value. This fair value measurement is broken down into three levels. Below is an excerpt from the Susan G. Komen Breast Cancer Foundation Annual Report (2013) defining the breakdown:

Investments are recorded on a three-level hierarchy for disclosure of fair value measurements. The valuation hierarchy is based on the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows:

Level 1 – Inputs to the valuation methodology are quoted prices for identical assets and liabilities in active markets.

Level 2 – Inputs to the value methodology include quoted prices for similar assets and liabilities in active markets and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

A financial instrument’s categorization within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement.

Accounting defines risk as the chance that a security value is misstated, whereas finance defines risk as the volatility of returns of the asset. An article from the *Wall Street Journal* (Chasen, 2013) reports that 37.5% of audits done by large accounting firms are found to be deficient. Furthermore, almost a third of the deficiencies involve auditors’ evaluation of market prices that are supplied by the firm for complex assets; therefore, the risk of improper valuation is very real from an accounting standpoint. Table 1 shows the fair market value measurements and classification for investments made by the Susan G. Komen Breast Cancer Foundation (2013).

**Table 1  
Fair Value Measurements at Reporting Date (US\$)**

| <b>March 31, 2013</b>       | <b>Level 1</b> | <b>Level 2</b> | <b>Level 3</b> | <b>Total</b> |
|-----------------------------|----------------|----------------|----------------|--------------|
| Domestic Equities           | 59,958,429     | -              | -              | 59,958,429   |
| International Equities      | 27,352,017     | -              | -              | 27,352,017   |
| Fixed-Income Funds          | 119,774,878    | -              | -              | 119,774,878  |
| Corporate Bonds             | 2,451,246      | -              | -              | 2,451,246    |
| Government Bonds            | 90,000         | -              | -              | 90,000       |
| Certificate of Deposit      | 10,394,117     | -              | -              | 10,394,117   |
| Long/Short Term Equity Fund | -              | -              | 10,539,546     | 10,539,546   |
| <b>Totals</b>               | 220,020,687    | -              | 10,539,546     | 230,560,233  |

A casual observation of nonprofit classification of assets reveals that Level 1 assets include certificates of deposit as well as domestic and international

equities. From a financial standpoint, risk is measured by the volatility of returns of the asset (variance). Certificates of deposit are virtually a risk-free asset, thereby from a financial perspective certificates of deposit, domestic, and international securities would never be in the same risk category. Nor would finance classify bonds and equities together in the same risk category. However, under the accounting definition of risk of proper valuation, it is common to see these types of securities placed together in the same risk class.

## DATA AND METHODOLOGY

To test our hypotheses, we collected financial information from the top 50 NPOs from 2009 annual reports (Hrywna, 2010). For each organization we collected the amount of assets that are classified as unrestricted, temporarily restricted, and permanently restricted. From this we can determine which NPOs have a high proportion of their assets in the form of restricted assets and which have a high proportion of assets classified as unrestricted. Tables 2 and 3 provide the descriptive statistics for permanently, temporarily, and unrestricted assets in dollars and in proportion to total net assets.

**Table 2**  
**Descriptive Statistics: Type of Asset in Dollars**

| Type of Asset          | Number of Observations | Mean        | Standard Deviation | Minimum   | Maximum       |
|------------------------|------------------------|-------------|--------------------|-----------|---------------|
| Permanently Restricted | 47                     | 150,691,539 | 33,408,159         | 0         | 1,874,699,000 |
| Temporarily Restricted | 46                     | 174,053,175 | 273,841,096        | 3,327     | 155,894,000   |
| Unrestricted           | 46                     | 760,111,511 | 136,820,146        | 3,659,862 | 6,540,720,000 |

**Table 3**  
**Descriptive Statistics: Type of Asset by Proportion**

| Type of Asset          | Number of Observations | Mean   | Standard Deviation | Minimum | Maximum |
|------------------------|------------------------|--------|--------------------|---------|---------|
| Permanently Restricted | 46                     | 10.07% | 11.42%             | 0.00%   | 40.45%  |
| Temporarily Restricted | 46                     | 26.04% | 18.54%             | 0.09%   | 69.02%  |
| Unrestricted           | 46                     | 63.90% | 21.28%             | 22.19%  | 99.90%  |

Referring to the financial notes categorizing the net assets among three levels based on fair value, we reclassify these assets according to the financial definition of risk. For example, risk free securities such as treasury securities are at one end of the continuum with derivatives and equity investments at the other end. We divide the NPOs' net assets into three categories. The first category contains risk free assets, which include cash, money market securities, and treasury securities. Bond securities are placed in the second category. Equities and derivatives make up the third category. The few investments that did not fit in any of these categories were not included in the analysis. The descriptive statistics showing the average dollar amounts in each category and the level of dispersion is given in Table 4. Using simple regression analysis, we test to see if the level of permanently restricted assets drives the risk level of the securities in which the NPO is invested.

**Table 4**  
**Descriptive Statistics: Dollar Amount of Assets Held at**  
**Each Risk Level As Defined by Volatility**

| <b>Assets Classified by Risk</b> | <b>Number of Observations</b> | <b>Mean</b>   | <b>Standard Deviation</b> | <b>Minimum</b> | <b>Maximum</b> |
|----------------------------------|-------------------------------|---------------|---------------------------|----------------|----------------|
| Level 1                          | 50                            | 94,714,239    | 2,706,655,596             | 0              | 1,557,675,000  |
| Level 2                          | 50                            | 27,774,404    | 88,682,302                | 0              | 571,912,000    |
| Level 3                          | 50                            | 2,432,085,664 | 77,729,611                | 0              | 4,195,713,000  |

**RESULTS AND CONCLUSIONS**

The results indicate a direct relationship between the proportion of permanently restricted held assets, the amount of risk-free assets, and bond investments by NPOs. Upon closer examination, we find that the less risky the investment class, the stronger the relationship to the level of permanently restricted assets. Our results are given in Table 5. We find the higher the level of permanently restricted assets, the higher the level of risk-free assets held (Class 1) with a *p*-value of .0033. Class 2 assets, which consist of bond holdings, also carry a statistically significant relationship with permanently restricted assets. There is a positive relationship between the level of permanently restricted assets and the amount of Class 2 assets with a *p*-value of .0127. Equity investments, Class 3, show the least significant relationship to the level of permanently restricted assets. The relationship between permanently restricted assets and equities is statistically insignificant with a *p*-value of .0740. Class 3 investments do not appear to be related to the proportion of permanently restricted assets.

**Table 5**  
**Regression Results Based on Investment Vehicle Risk Category**  
**Dependent Variable = Level of Permanently Restricted Assets**

|                           | Risk-Free<br>N=47   | Bonds<br>N=47      | Equity<br>N=47      |
|---------------------------|---------------------|--------------------|---------------------|
| Alpha                     | 478.7690<br>(.2484) | 14.6442<br>(.2942) | 163.6573<br>(.1974) |
| Beta                      | 0.35072<br>(.0033)  | 0.09874<br>(.0127) | 0.63093<br>(.0740)  |
| Model <i>F</i> -Statistic | 9.65<br>(.0033)     | 6.73<br>(.0127)    | 3.35<br>(.0740)     |
| $R^2$                     | .1766               | .1302              | .0692               |
| Adjusted $R^2$            | .1583               | .1108              | .0485               |

Notes: Values in parenthesis are *p*-values and *n* is the number of observations.

These results lend support to our hypothesis that the higher the proportion of permanently restricted assets, the greater the tendency for NPOs to invest in low risk investments such as cash, treasury securities, and certificates of deposit. As we move toward mid-level risk securities such as bonds, we find a slightly weaker, but still statistically significant, relationship. The highest risk category made up of equities and derivatives had the weakest relationship to the level of permanently restricted assets.

## CONTRIBUTIONS

The NPO financial literature fails to specifically explain the investment policies of NPOs. Surplus monies of the NPO find their way into these investments. This paper is a first attempt to test a hypothesis that may at least partially explain the investing behavior of NPOs. The risk profiles of these policies should be important to donors, board members, and other stakeholders since the investment policy is an indication of how much money the NPO can access in the event of a liquidity crisis. Stockholders of for-profit corporations assess the risk of the companies they choose to invest; similarly, donors should be informed as to how donations are being allocated but also how surplus funds are managed. Likewise, management and the board of directors of corporations are aware of the risk exposure of the firm and work to manage that risk. The same should be true for NPO executives and board members. The findings in this study contribute to the literature by revealing a possible factor impacting the investment policy of an NPO: the proportion of permanently restricted assets held by the NPO. Further research in this area would be to reveal additional factors that are considered when an NPO creates its investment policy and the corresponding rationale.

## REFERENCES

- Calabrese, T. D. (2012). The accumulation of nonprofit profits: A dynamic analysis. *Nonprofit Quarterly and Voluntary Sector Quarterly*, 41(2), 300–324.
- Chang, C. F., & Tuckman, H. P. (1990). Why do nonprofit managers accumulate surpluses and how much do they accumulate? *Non Profit Management and Leadership*, 1, 117–135.
- Chasan, E. B. (2013). Auditors at big firms cited for more deficiencies—the CFO report. *Wall Street Journal*. Retrieved from <http://blogs.wsj.com/cfo/2013/10/01/auditors-at-big-firms-cited-for-more-deficiencies/>
- Greenlee, J. S., & Brown, K. L. (1999). The impact of accounting information on contributions to charitable organizations. *Research in Accounting Regulation*, 13, 111–125.
- Hrywina, M. (2010). Financial data confirms the worst about 2009. *The NonProfit Financial Times*. 19–25.
- McCarthy, J. H., Shelmon, N. E. & Mattie, J. A. (2012). *Financial and accounting guide for not-for-profit organizations*. Hoboken, NJ: John Wiley and Sons, Inc.
- Susan G. Komen Breast Cancer Foundation Annual Report. (2013). *Consolidated financial statements and supplementary information*. Retrieved from <http://ww5.komen.org/uploadedFiles/Content/AboutUs/Financial/Susan%20G%20Komen%20Financial%20Statements%20FY13.pdf>
- Tinkelman D. (1999). Factors affecting the relation between donations to not-for-profit organizations and efficiency ratio. *Research in Governmental and Nonprofit Accounting*, 10, 135–161.

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# *Special Section:*

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*Business and Business Education  
in the American Midwest*

# **The Future of Business in the American Midwest: Factors for Business Growth in a Four-State Midwest Region**

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## **INTRODUCTION**

The future of business in the Midwest and elsewhere will no doubt look different from today, just as business today is different than it was in the past. Some factors are constants for business success, and some change considerably due to technological progress and the advance of human capital. Any determination of a state's or region's likelihood for future growth in business is subjective, depending on the various factors deemed important for business success and to the relative importance attributed to each factor under review. This essay will examine key factors necessary for business success and economic growth in each of the four states in the Midwest region consisting of Iowa, Kansas, Missouri, and Nebraska. The factors were chosen based on current business literature, economic theory, and empirical observation. These factors will be compared to national trends, and an evaluation will be made as to which states are best positioned to achieve economic growth. Given this, an assessment will be made as to the future of business in the four-state Midwest study region.

## **CURRENT ECONOMIC CONDITIONS**

Economic conditions in the four-state study region have been generally much better than the national average for all states except Missouri, which has performed closer to the national average. Bureau of Economic Analysis (BEA, 2013a) data through calendar year 2013 reveal that real GDP in the U.S. has grown 9% since the last year of the Great Recession in 2009. Over the same time period, real GDP has grown much faster in Nebraska (19%), Iowa (14%), and Kansas (12%), while growth in Missouri (4%) was much lower than the national average. Nebraska was the only state in the Midwest study region that did not



suffer an annual drop in production during the 2008 and 2009 recessionary years. Since total production in Missouri is nearly double that of the next largest state, the four-state region as a whole is more heavily influenced by Missouri, but production in the region still increased faster than the national average.

At the end of 2014, the unemployment rate for all four states in the region was lower than the national average of 5.6% (Bureau of Labor Statistics, 2015). Nebraska had the second lowest unemployment rate in the nation at 2.9%. The unemployment rates in all four states have been consistently lower than the national average every year since the Great Recession of 2008–2009, with Iowa and Kansas lower than Missouri, and Nebraska lowest of the four states in the region. While unemployment rates can be influenced by a state's relative welfare and aid programs, the low rates are still indicative of a very strong regional economy.

The long-term trend in private production nationwide has seen in a shift from goods to services, and Missouri has followed that trend as well. Iowa, Kansas, and Nebraska have been major exceptions as all three states have recorded much greater increases in the private production of goods compared to services (BEA, 2013b). This trend continues strong as real growth in the production of private goods is roughly three times greater than real growth in private services production for these three states. Services currently account for 78% of all private production of goods and services nationwide and the same is true for Missouri. The numbers for Kansas (70%), Nebraska (68%), and Iowa (65%) are significantly lower. Clearly, the production of goods has been a major factor contributing to the impressive economic strength experienced by these three states.

## **KEY FACTORS FOR FUTURE BUSINESS GROWTH**

### **Human Capital**

People are the most important ingredient in the success of any business venture. The best technology, resources, and working environment will not lead to success without an educated and highly trained workforce to fully utilize all other available factors.

### **State and Local Government Spending on Education**

According to the U.S. Census Bureau (2013a), real expenditures on education by all state and local governments combined decreased 5% over the five-year period ending in 2013. Real education spending by state and local governments in Nebraska, Iowa, and Kansas increased by 11%, 7%, and 3%, respectively over this time period, while Missouri was virtually unchanged. The 10-year trend shows all four states in the Midwest region significantly higher than all states combined nationwide for increases in real state and local spending on education.

In addition, the data showed that the 2012 share of state and local government spending on education going to higher education was 29% for all states combined. The equivalent shares for Kansas (36%), Iowa (35%), and Nebraska (32%) were all above the combined national share, while Missouri (29%) was the same.

State and local spending on education represents 27% of total state and local spending for all state governments combined. Kansas (33%), Iowa (32%), Missouri (30%), and Nebraska (30%) state and local governments all invested a greater proportion of their expenditures to education than the national average.

### **Educational Attainment**

The strong government commitment to education illustrated above by the four states in the Midwest region is apparent in the Census Bureau (2013b) reports on educational attainment for 2013. All four states have a higher percentage of the adult population with at least a high school degree than the combined percentage of all states nationwide. Iowa and Missouri have a higher share with at least a bachelor's degree than the nation combined for the 18–24 year old age group, while Kansas and Nebraska outrank the national average with at least a bachelor's degree for the 25–34 year old age group. Nebraska and Kansas have a higher percentage of adults 25 and older with a post-secondary degree than the national average for all states combined. These results are consistent for each of the years from 2009–2013.

### **Human Capital Investment**

The Milken Institute's 2014 State Technology and Science Index study constructed a Human Capital Investment Composite Index measuring the amount each state invested in workforce development. This index ranked Nebraska 15<sup>th</sup>, Iowa 18<sup>th</sup>, Kansas 24<sup>th</sup>, and Missouri 27<sup>th</sup> in the nation. The index numbers for previous years showed similar results. This index reflects each state's commitment to worker training programs in an effort to enhance future business success.

The education/workforce training factors above indicate a high level of commitment in the four-state region, especially in Nebraska and Iowa, to ensure a highly capable workforce to meet the needs for business development and success in the future.

## **TECHNOLOGY AND CAPITAL INVESTMENT**

It is generally thought that the four states in the study region trail most other states in the area of production technology. However, there are several factors that indicate these states are making excellent progress in the generation of capital investment and technological advance, and these factors should contribute significantly to the future success of businesses in the region.

Nebraska won Site Selection Magazine's 2013 Governor's Cup as the top state for economic development projects per capita. Kansas and Iowa ranked 5<sup>th</sup> and 6<sup>th</sup> respectively. In the 2014 Governor's Cup, Kansas ranked 4<sup>th</sup> and Iowa 10<sup>th</sup> for economic projects per capita. Qualifying projects required a minimum capital investment of \$1 million to start a new business or to expand existing facilities. These rankings show a strong improvement in attracting new capital investment to these three states.

Research and Development expenditures, even on a per capita basis, are much lower than the national average for all states in the Midwest study region except Missouri. However, the five-year trend through 2012 for real Research and Development expenditures indicated greater growth in Kansas (47%), Iowa (36%), and Nebraska (9%) than the national average of 4% over this period (Census Bureau, 2013c).

Business Facilities Magazine's Top 10 Ranking Report (2012) put Iowa 4<sup>th</sup>, Kansas 5<sup>th</sup>, and Nebraska 8<sup>th</sup> as Emerging Biotechnology Hubs. In addition, Iowa and Kansas are national leaders in the production of renewable fuels. It comes as no surprise that Iowa (1), Nebraska (2), Kansas (9) and Missouri (12) are national leaders in Ethanol production, but Iowa also leads the nation in Wind Power production as a percent of their total energy use, with Kansas the 3<sup>rd</sup> highest state in that category.

## **BUSINESS ENVIRONMENT**

### **Business Costs**

Low costs for business inputs helps existing firms compete with producers in other regions and attract new business ventures into the state. The four states in the study region have some definite cost advantages in key areas.

Labor costs are lower than the national average for every state in the study region. BEA (2013c) data show that Iowa had the nation's 6<sup>th</sup> lowest wages and salaries per worker in 2013 while Nebraska ranked 12<sup>th</sup>, Kansas 16<sup>th</sup>, and Missouri 20<sup>th</sup>.

The U.S. Energy Information Administration (2015) reports that Iowa had the 11<sup>th</sup> lowest state prices for commercial electricity in 2013, while Nebraska was 15<sup>th</sup>, Missouri 18<sup>th</sup>, and Kansas 27<sup>th</sup>. Low electricity prices are especially important in the production of goods, where Iowa, Nebraska, and Kansas have a higher percentage of production versus services than most other states.

Commercial real estate costs for all four states in the study region are very favorable for businesses, with Iowa having the lowest costs in the nation (24/7 Wall St., 2015). Kansas ranked 9<sup>th</sup>, Nebraska 12<sup>th</sup>, and Missouri 13<sup>th</sup> lowest in the nation.

Nebraska had the lowest transportation congestion costs in the nation according to the American Transportation Research Institute (2014), with Iowa (4) and Kansas (13) much lower than the national average as well.

## **State Government Support and Incentives**

State governments can play a vital role to enhance the business climate for firms in their states. The governments of each state in the Midwest study region have many assistance programs designed to spur business development and increase the likelihood for success. These programs offer various financial and tax incentives to existing and start-up companies to assist with the acquisition of capital equipment and infrastructure, as well as workforce development programs to insure a dependable supply of highly trained workers. The emphasis of programs varies somewhat among the states in the study region, but most emphasize aid for non-retail, non-services enterprises.

Iowa has the largest number and variety of economic development programs among the four states in the Midwest region. It offers five financing programs, six tax incentive programs, three investor tax incentive programs, and six workforce development programs. Its High Quality Jobs Program is the most comprehensive, providing tax credits, loans, exemptions, and refunds to reduce the costs of creating or expanding facilities in the state. Businesses must meet wage requirements to qualify (Iowa Economic Development Authority, 2015).

Kansas features five programs for financial assistance, ten programs offering tax incentives, and two workforce development programs. One prominent economic development effort is the High Performance Incentive Program (HPIP). HPIP provides a corporate income tax credit on qualifying capital investment and employee training. To qualify, a firm must pay above average wages and offer employee training (Kansas Department of Commerce, 2015).

Missouri's business development system includes four financing programs, three tax incentive programs, and one workforce development program. A good example is BUILD, which provides financial incentives to reduce costs for needed capital equipment and infrastructure purchases for large projects that are expected to create at least 100 new jobs (Missouri Department of Economic Development, 2015).

Nebraska economic development efforts include four programs providing financing to business, five programs offering tax incentives, and two workforce development programs. One highly touted new program is the Nebraska Advantage Package. This is a six-tiered program that offers sales tax relief, wage credits, and investment tax credits for purchases of capital goods. The six tiers relate to how many jobs will be created by the participating firms, as well as special considerations for different types of firms (Nebraska Department of Economic Development, 2015).

As with the funding of education, these numerous support programs show a major commitment of state governments in the four-state study region to the future success of business.

### **State Regulation of Business**

The legal environment in the Midwest study region is very pro-business in all states except Missouri. The Mercatus Center (2013) ranked Iowa 3<sup>rd</sup>, Nebraska 5<sup>th</sup>, and Kansas 10<sup>th</sup> for regulatory freedom in business. This measure accounts for factors like lawsuit abuse, property rights, and labor market restrictions. These three states have right-to-work laws limiting the power of labor unions, while Missouri does not.

### **CONCLUSION**

Based on the key factors for business growth described above, it would appear that the future of business in the Midwest study region is very favorable. Iowa and Nebraska rank high on nearly every factor under consideration, with Kansas coming in just below the first two. All three of these states consistently outperformed the average of all states nationwide. Missouri lags well behind the other three states in nearly every category important for future growth, but the state is typically closer to the national average for all states rather than near the bottom. Missouri has lower than average unemployment, ranks very well for low business costs and educational attainment, and offers a decent number of state support and incentive programs to help businesses achieve success in the future. In general, the four-state Midwest study region is well positioned to excel in business development for the foreseeable future.

## REFERENCES

- American Transportation Research Institute. (2014). *2014 Congestion Impact Analysis by State*. Retrieved from <http://atri-online.org/2012/04/19/state-data-2/>
- Business Facilities Magazine. (2012). *2012 Business Facilities Rankings Report*. Retrieved from <http://businessfacilities.com/2012/08/2012-business-facilities-rankings-report/>
- Iowa Economic Development Authority. (2015). *Why Iowa?* Retrieved from <http://www.iowaeconomicdevelopment.com/WhyIowa>
- Kansas Department of Commerce. (2015). *Businesses*. Retrieved from <http://www.kansascommerce.com/index.aspx?NID=233>
- Mercatus Center, George Mason University. (2013). *2011 Freedom in the 50 States*. Retrieved from <http://freedominthe50states.org/regulatory>
- Milken Institute. (2014). *2014 State Technology and Science Index Report, Human Capital Investment Composite Index*. Retrieved from <http://statetechandscience.org/stateTech.taf?page=overall-ranking&composite=hcic>
- Missouri Department of Economic Development. (2015). *Business Assistance*. Retrieved from <http://www.ded.mo.gov/businesses/BusinessAssistance.aspx>
- Nebraska Department of Economic Development. (2015). *Business Development*. Retrieved from <http://www.neded.org/business>
- Site Selection Magazine. (2015). *A League of their Own*. Data from Conway New Plant Database. Retrieved from <http://www.siteselection.com/issues/2015/mar/cover.cfm>
- U.S. Bureau of Economic Analysis. (2013a). *Gross Domestic Product by State*. Retrieved from <http://bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1&acrdn=4#reqid=70&step=1&isuri=1>
- U.S. Bureau of Economic Analysis. (2013b). *GDP, Private Goods and Services Production by State*. Retrieved from <http://bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1&acrdn=4#reqid=70&step=5&isuri=1&7003=200&7004=nai&7001=1200&7002=1&7090=70>
- U.S. Bureau of Economic Analysis. (2013c). *Compensation of Employees*. Retrieved from <http://bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1&acrdn=4#reqid=70&step=24&isuri=1&7022=50&7023=0&7001=450&7090=70>. Retrieved from <http://bea.gov/regional/index.htm>
- U.S. Bureau of Labor Statistics. (2015). *Local Area Unemployment Statistics*. Retrieved from <http://data.bls.gov/cgi-bin/dsrv?la>
- U.S. Census Bureau. (2013a). *2012 Census of Governments, State and Local Government Finances by Level of Government and State*. Retrieved from [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=COG\\_2012\\_LGF001&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=COG_2012_LGF001&prodType=table)

U.S. Census Bureau. (2013b). *2013 American Community Survey, Educational Attainment by State*. Retrieved from [http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_13\\_5YR\\_S1501&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_5YR_S1501&prodType=table)

U.S. Census Bureau. (2013c). *2013 Business R&D and Innovation Survey. From National Science Foundation Data*. Retrieved from <http://www.nsf.gov/statistics/industry/>

U.S. Energy Information Administration. (2015). *2013 Average Commercial Retail Price of Electricity*. Retrieved from <http://www.eia.gov/electricity/data.cfm>

24/7 Wall St. (2015). *The Best and Worst States for Business*. Real Estate Cost Data from CoStar Group Inc. Retrieved from <http://247wallst.com/special-report/2015/02/26/the-best-and-worst-states-for-business>

# Business School Business Models and Their Raisons D'être

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## **ABSTRACT**

Business schools are at a crossroad. A number of factors are forcing change in business education delivery models. This paper will outline some of the major environmental challenges facing business schools and the emerging education models that are being adopted to adjust to new market realities. This article will start with a short history of business schools over time, analyze financial pressures, outline competitive entry, and discuss new business school models. Data reported is gathered from education industry reports, Federal Department of Education Data, and other sources. The analyses show that projections for traditional education delivery models are bleak at best. A number of new education delivery models are rapidly emerging and programs that do not change may have a bleak future.

**Keywords:** business schools, business school models, education expenditures, MOOC

## **INTRODUCTION**

As business school leaders, we are charged with ensuring that graduates understand successful business strategy must match the industry's environment. A fundamental principle is that the more dynamic the environmental change, the more businesses need to change to adapt. Over the last decade and a half, the business school higher education industry's environment has become increasingly dynamic. If business schools do not adjust their business models, they could lose their relevancy.



In 2013, Moody's Investors Service outlook for the entire U.S. higher education sector was rated as negative, including the market-leading, research-driven colleges and universities. The reason is: "The U.S. higher education sector has hit a critical juncture in the evolution of its business model." The CarringtonCrisp's (2014) *See the Future 2014* report has an underlying theme for business schools: "Change or die." Richard Lyons, the dean of the University of California at Berkeley, predicted that half of the business schools in the U.S. could be out of business in as little as five years or as many as ten. These predictions were based on technology disruption, but this is not the only disruptive force that colleges and universities in the four-state area (Iowa, Kansas, Missouri, and Nebraska) are facing.

## UNIVERSITY SYSTEMS HISTORY AND EVOLUTION

Table 1 outlines a historical timeline of major events in the evolution of colleges and universities in the United States. The historical market structure of U.S. higher education can be characterized as a regulated quasi-monopoly. This centuries-old system began to change due to increased competition in the 1990s from new technology, new market entrants, and increased pressure by state schools to expand markets for revenue due to decreased state support.

As the United States expanded westward in the early 1800s, states and territories developed universities to serve their populations. The University of Missouri was founded in 1839, the University of Iowa in 1847, and the University of Kansas in 1866. The Morrill Act of 1862 donated federal land to states and territories to develop land-grant universities that would focus on arts and mechanical education. Morrill land-grant universities include Kansas State founded in 1863 and the University of Nebraska founded in 1869. States also had "normal schools" or teachers' colleges. Normal schools that evolved to university status include Harris–Stowe State University, Missouri founded in 1857, Emporia State University established 1863, University of Northern Iowa founded in 1876, and the University of Nebraska at Kearney founded in 1905. Each of these state institutions had defined missions and geographic territories. Since these were state supported, students who crossed state borders were expected to pay higher "out-of-state" tuition rates.

The historic universities evolved over time and newer universities developed to meet the needs of expanding state populations, increased college attendance by GI Bill students, and the college attendance of the Baby Boom Generation. What did not change for state schools were their defined mission status, geographic markets, and out-of-state tuition rates. For example, if a state university wants to expand programs or branch locations, in most cases a request needs to be made through the state's coordinating board for higher education to ensure lack of duplication of programs.

**Table 1  
Business School History Timeline**

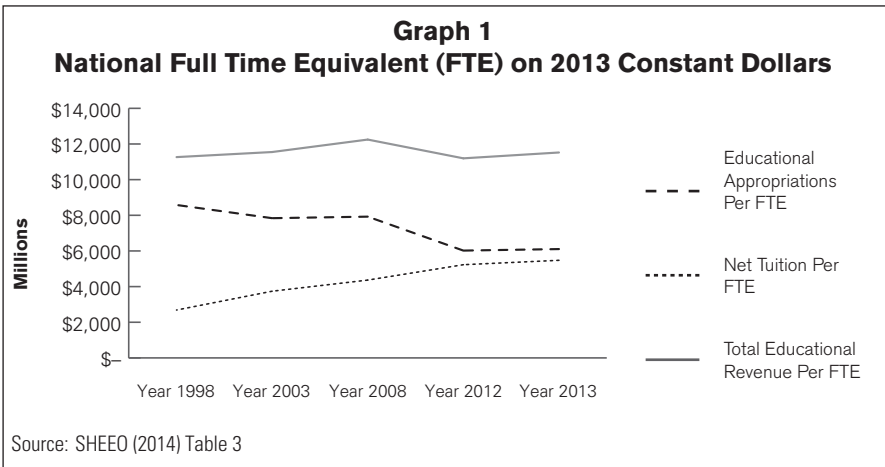
| <b>Time Period</b> | <b>Example</b>                                      | <b>Events</b>  |
|--------------------|---|--|
| 1700s              | U.S. Colonial Private Universities                  | Organized to train the intellect and to build character.   |
| 1825               | Jefferson founds the University of Virginia         | First nonsectarian university in the United States and the first to use the elective course system.  |
| 1830-1900s         | Development of state university systems             | University of... – originally law and medicine focused.<br>...State University – typically land grant, arts and mechanical.<br>Normal schools – originally teachers' college.  |
| 1862               | Morrill Act   | Act donated Federal public lands to several states and territories to provide colleges for the benefit of agricultural and mechanical arts. This was the beginning of the American public research university system.  |
| 1800s-1900s        | Business Schools evolve across Europe and the U.S.  | 1819 – The world's first business school, ESCP Europe was founded in Paris.<br>1881 – The Wharton School of the University of Pennsylvania is the United States' first business school.  |
| 1944               | The Servicemen's Readjustment Act of 1944 (GI Bill) | Before WWII there were 160,000 U.S. citizens in college. By 1956 – 7.8 million World War II veterans had participated in education or training programs.   |
| 1964               | First Baby Boomers reach age of 18                  | 28.8% of Baby Boomers have earned a Bachelor's degree or higher, while another 28.9% have attended some college classes.   |
| 1976               | University of Phoenix founded                       | Peak enrollment of almost 600,000 students in 2010.  |
| 1980+              | Millennial Generation                               | By 2015, this age group is the primary college market.   |
| 1990s              | Rise of the internet                                | Development of browsers and online learning management systems.  |
| 2000               | iGeneration   | Generation will never know life without the internet.  |
|                    |   |  |
| 2001               | Post 9/11 recession                                 | Begins drop in state funding.  |
| 2008               | Great Recession                                     | Steeper decline in state funding.  |
| 2009               | 767,652 High School Graduates                       | Peak year for Midwest high school graduation. Expected declines through 2028.  |
| 2015               | Nonprofit education national expansion competition  | Public and private nonprofit universities with national online presence:<br>Pennsylvania State University—World Campus<br>Colorado State Global Campus<br>Arizona State University – Online<br>Southern New Hampshire University<br>Western Governor's University<br>For a list: <a href="http://www.usnews.com/education/online-education/bachelors/rankings?int=999208">http://www.usnews.com/education/online-education/bachelors/rankings?int=999208</a> |

While private universities have existed in the U.S. since the 1700s, these universities often served a well-defined mission (i.e., religious) and defined populations (i.e., based on location or markets served such as due to higher tuition). Private universities did not place a great deal of competitive pressure on state institutions. Pressure to traditional business schools started with the rise of the private for-profit universities that brought a new model into the competitive environment. Originally, this was through the for-profits crossing state borders with physical facilities to expand market share. This was followed in the later 1990s with the offering of online education programs.

What the for-profits realized was that their business model allowed for the ability to cross state borders and to expand market share with a standardized product. This provided economies of scale. In 2010, the University of Phoenix peaked with enrollment of almost 600,000 students. The profitability of this education model attracted a number of other for-profits into the national expansion model.

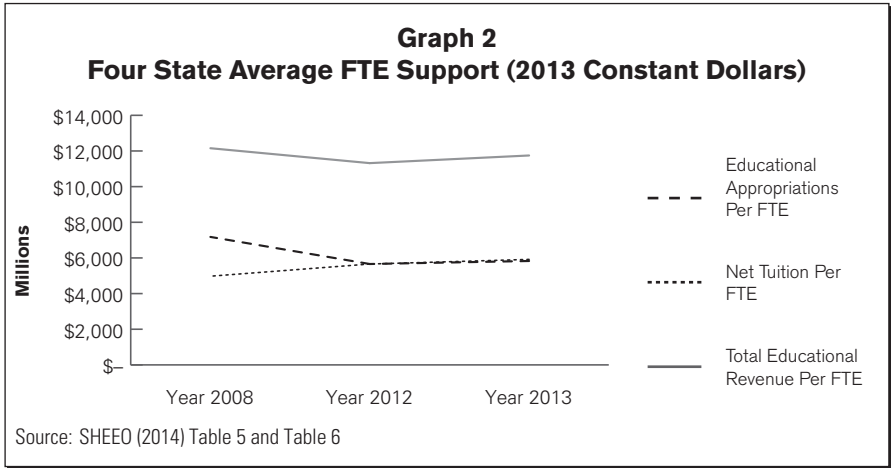
## FINANCIAL PRESSURE

The next major event to place pressure on state universities was the post 9/11 recession. For many states this was the beginning of a permanent decline in state support. Graph 1 below shows data from the State Higher Education Executive Officers (SHEEO) report. While there was a decline from 1988 to 2003, a steeper drop can be clearly seen after the Great Recession of 2008. When state legislators face budget constraints, they normally have three areas where they can make cuts: prisons, K–12 schools, or higher education. Only one of these allows for cost shifting to the user. Overall funding per Full Time Equivalent (FTE) remains somewhat constant, this is due to schools having to raise tuition to maintain their budget structure.



Graph 2 shows the average FTE data for the four-state region. The average shows

a drop in state funding from 2008 through 2013. Student tuition continues to rise while total educational revenue remains fairly stable. Table 2 shows the individual state FTE figures. State appropriation declines over a five-year range from -10% to -26%. Only Nebraska has a total FTE revenue increase over that five-year period.



**Table 2**  
**Educational Appropriations per FTE**  
**(Constant Adjusted 2013 Dollars)**

|                   | State    | FY 2008  | FY 2012  | FY 2013  | 1 Yr % Change | FY 2013 Index to U.S. Average | 5 Yr % Change |
|-------------------|----------|----------|----------|----------|---------------|-------------------------------|---------------|
| FTE Appropriation | Iowa     | \$6,605  | \$4,627  | \$5,013  | 8%            | 82%                           | -24%          |
|                   | Kansas   | \$6,787  | \$5,559  | \$5,634  | 1%            | 92%                           | -17%          |
|                   | Missouri | \$7,189  | \$5,338  | \$5,310  | -1%           | 87%                           | -26%          |
|                   | Nebraska | \$8,135  | \$7,114  | \$7,357  | 3%            | 121%                          | -10%          |
| FTE Tuition       | Iowa     | \$6,158  | \$7,263  | \$7,638  | 5%            | 140%                          | 24%           |
|                   | Kansas   | \$4,795  | \$5,272  | \$5,528  | 5%            | 101%                          | 15%           |
|                   | Missouri | \$4,947  | \$5,232  | \$5,418  | 4%            | 99%                           | 10%           |
|                   | Nebraska | \$4,001  | \$4,866  | \$5,090  | 5%            | 93%                           | 27%           |
| FTE Total Revenue | Iowa     | \$12,763 | \$11,890 | \$12,651 | 6%            |                               | -1%           |
|                   | Kansas   | \$11,582 | \$10,831 | \$11,162 | 3%            |                               | -4%           |
|                   | Missouri | \$12,136 | \$10,570 | \$10,728 | 1%            |                               | -12%          |
|                   | Nebraska | \$12,136 | \$11,980 | \$12,447 | 4%            |                               | 3%            |

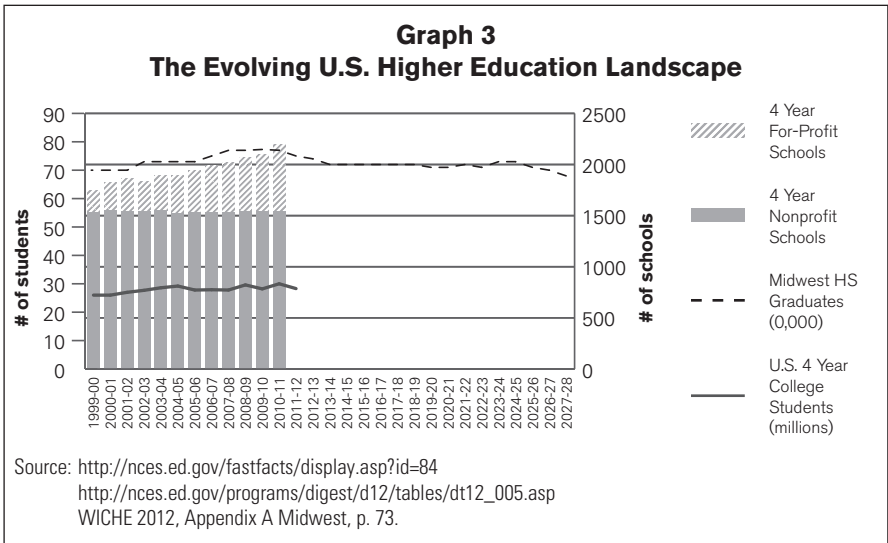
Source: SHEEO (2014) Table 5 and Table 6

Private nonprofit universities are not immune from financial pressures. Small to mid-sized privates with small endowments are tuition dependent and are faced with declining enrollments due to a shrinking traditional student market, increased competition for remaining students, and students and parents who are price sensitive (Rivard, 2013).

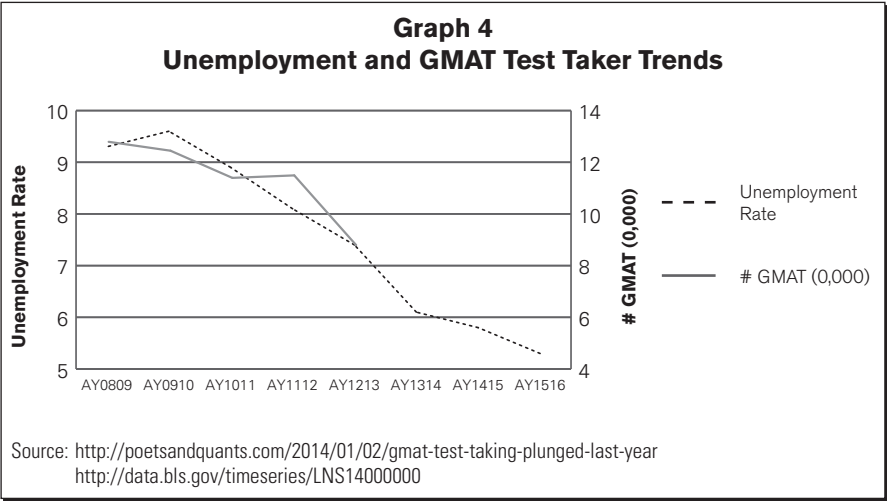
### INCREASED COMPETITION IN SHRINKING MARKET

State schools adopted a number of recruitment strategies over the last two decades in an attempt to increase revenue. These include offering border counties or select locations for in-state tuition rates. Active recruiting is also conducted within a state when universities cross historic service areas. For example, The University of Missouri Kansas City faces in-state competition in Kansas City from Northwest Missouri State University, Missouri Western State University, and the University of Central Missouri. By 2015, a number of public and private universities have expanded their education delivery models by adopting online education with some using active national recruitment campaigns.

Graph 3 represents overlapping higher education trends. From 2000–2011 the number of four-year nonprofit schools remained fairly stable while the number of for-profits has increased. By 2015, these for-profits, and a large number of not-for-profit schools have adopted online national expansion models. These institutions are targeting almost all states pulling students from a limited college population. State schools in the four-state region that have relied on graduating high school students are targeting a shrinking pool. Kansas is the only state in this region with an expected increase in high school graduation, but this is not expected until after 2025.



The adult completion market is seen as an opportunity for expansion for both undergraduate and graduate students. This market is targeted by all of the national expansion education model schools. The degree completion student is normally a working adult and this market is highly sensitive to the unemployment rate. The number of adults who are continuing to pursue both undergraduate and graduation education has been shrinking in parallel with the dropping unemployment rates. Graph 4 illustrated the drop in GMAT test taking in the U.S. against the unemployment and projected unemployment rates. Millennial adults make a rational decision about their educational goals often determining they do not need an advanced degree when they can get the job they want without it. If trends continue, a further drop in MBA applications can be expected. MBA programs for the adult completion market will need to develop a high level of flexibility (Nishihara & Everitt, 2014).



**MARKET RELEVANCY**

Two studies on business school education have converged on similar findings. The first is the *See the Future 2014* report by CarringtonCrisp and EFMD (a European based organization focused on management development and business school accreditation). This study researched the views of employers and senior academic and professional staff in business schools on key trends in business education.

In the fall of 2014, the Boston University School of Management developed the *Business Education Jam: Envisioning the Future Report*. The Jam was an online brainstorming process focused on how to close the growing gap between industry and academia. The Jam was held over 60 consecutive hours with moderators linking researchers, scholars, students, thought leaders, and executives.

Some of the major findings from both studies include:

- The value of a business degree often begins with ROI and employability.
- Employers seek students who have not only basic business knowledge, but also professional skills such as intellectual agility, understanding of larger analytical frameworks, and the ability to lead.
- Business leaders do not read most business academic research.
- Technology will bring new market entrants. Business schools will be driven by competition coming from many quarters including online-only universities. Business schools should consider offering effective mixed models of campus and distance learning.
- Many lower-tier schools will likely disappear, and regional and local schools will be increasingly threatened by online alternatives.
- Students should have leadership competencies that include soft skills and managerial skills that encompass functional, disciplinary, and technical skills.
- Business students will expect delivery of programs to be delivered, in part, online.
- Business schools will increasingly accredit other prior learning within a degree.

Both studies make the argument that business schools could lose their relevancy if they do not deliver education in a mode expected and with results that provide a return on students' time and money as expected by employers.

A major challenge is how to blend these issues into a successful business school model. One of the statements made in the Business Jam (2014) report was that only a face-to-face setting allows for the group work experience desired by employers. However, millennial students have integrated into their lives interfacing with their personal networks at a distance through game playing, social networks, and online communication through texting, tweeting, or the various social media outlets available. Businesses have lowered the cost of travel by using a variety of conferencing systems to hold group meetings virtually. Expectations are that effective group work will be facilitated through online platforms.

## **EMERGING BUSINESS SCHOOL MODELS**

Table 3 outlines a number of business school models. There are, of course, variations within these models. The table is only meant to provide a broad scope

view. The traditional model was the mainstay of business education. This model was in place prior to online delivery and when there was a quasi-monopoly available to schools. Online degree delivery was adopted by a number of schools starting in the late 1990s. This was made possible by both the emergence of access to the World Wide Web and learning management systems (LMS).

Online education can support a school's current students or be designed to expand markets. An important consideration in an expansion model is the commitment to scale delivery across state borders. This requires the development of distributed education delivery support. Most states require that an education institution be authorized to deliver instruction and follow the state's education regulations. This requires a state-by-state approval process as schools expand. Part of the University of Phoenix's early strategy was to have a physical presence when required by states so it could then deliver online education to that state. With changing state regulations, that physical presence is not now required in all states. University of Phoenix's education model allows for closing of centers because degree completion can be done online and it does not have a large faculty core at these extended locations.

## **OUTSOURCING SUPPORT**

The barriers to entry for business schools to enter an online market are rapidly disappearing. From late 1990 through 2010, if a business school wanted an online course or program, it would most often turn to its faculty to develop content and place the course in a LMS. The major textbook publishers have adjusted their own business models to now provide everything from customized course development to the wholesale delivery of complete online programs.

Just as a textbook publisher would at one time hire a faculty content expert to author work with an editor and designer to develop a textbook, the publishers are now putting together teams of content experts, educational designers, and LMS course designers to develop online courses and degrees. The publishers offer speed to market and benefits from economies of scale. Publishers and other companies are moving to offer services from recruitment through course delivery. The educational institution then validates learning for credit.

Massive open online courses (MOOCs) are also a newer online delivery mode. MOOCs can be expensive to develop and deploy but are very inexpensive for degree delivery. Georgia Tech, Udacity, and AT&T collaborated to offer an online Master's degree in Computer Science with a \$6,600 tuition charge (Rivard, 2013). edX, governed by MIT and Harvard, offers MOOC courses from MIT, Harvard, Berkeley, the University of Texas, and many other Research I universities. Coursera has partnered with a similar set of global partner schools to offer MOOC courses. The MOOC companies plan to monetize their business models by offering online lectures by leading professors and then hosting a platform



where credit granting programs can validate learning, charge tuition, and offer credit. The lead professor and platform are outsourced.

**Table 3  
Alternate Business School Models**

| <b>Model</b>                      | <b>Students Served</b>   | <b>Model</b>  | <b>Resources</b>  |
|-----------------------------------|--|---|---|
| Traditional                       | <ul style="list-style-type: none"> <li>Undergraduate - Immediate post high school (CC transfers)</li> <li>Graduate - Immediate post undergrad</li> </ul> | <ul style="list-style-type: none"> <li>Students geographically located</li> <li>Students attend in a classroom</li> <li>Students obtain credit by course completion</li> <li>Undergrad completion in 4–6 years</li> <li>Graduate completion in 18 months</li> </ul> | <ul style="list-style-type: none"> <li>Campus setting</li> <li>Full time faculty core</li> <li>Campus support staff</li> </ul>                            |
| Blended                           | <ul style="list-style-type: none"> <li>Millennial students</li> <li>Adult degree completion</li> </ul>   | <ul style="list-style-type: none"> <li>Students geographically located</li> <li>Combination of classroom and face-to-face and online</li> </ul>   | <ul style="list-style-type: none"> <li>(above and) LMS support</li> </ul>   |
| Online degree delivery            | <ul style="list-style-type: none"> <li>Millennial students</li> <li>Adult degree completion</li> </ul>   | <ul style="list-style-type: none"> <li>Students need not be geographically located</li> <li>Delivery available across states</li> <li>Students use LMS to access class</li> <li>Credit for experience possible</li> </ul>   | <ul style="list-style-type: none"> <li>Full time faculty/ content experts</li> <li>Adjunct core</li> <li>Student Support staff</li> </ul>                 |
| Massive open online course (MOOC) | <ul style="list-style-type: none"> <li>Millennial students</li> <li>Adult degree completion</li> </ul>   | <ul style="list-style-type: none"> <li>Students not geographically located</li> <li>Delivery available across the world</li> <li>Students use internet to access open class</li> <li>Credit for participation possible</li> </ul>                                   | <ul style="list-style-type: none"> <li>Distributed delivery support</li> <li>LMS support</li> </ul>   |
| Licensed MOOC                     | <ul style="list-style-type: none"> <li>Millennial students</li> <li>Adult degree completion</li> </ul>   | <ul style="list-style-type: none"> <li>(above and) Credit granted by MOOC's partner school.</li> </ul>  | <ul style="list-style-type: none"> <li>Adjunct core</li> <li>Student Support staff</li> <li>Online delivery support staff</li> <li>LMS support</li> </ul> |

Credit for experience is a process that validates a student’s prior experience, training, and knowledge for credit. Western Governors University (WGU) is a nonprofit online university founded by 19 U.S. governors to offer a flexible online education to working adults. WGU follows a competency-based approach as supported by the Lumina Foundation (2015). WGU clearly identifies its market as working adults who have, in many cases, the work experience and knowledge that matches traditional course outcome goals.

## THE FUTURE

It is easy to dismiss the changes required due to the turbulent environment of higher education. One can point to the pressure now being placed on for-profit colleges by the Federal Government. For example, University of Phoenix has closed sites and sold its headquarters building. Federal pressure is not the only reason for the for-profit's actions. They are responding to the larger set of industry trends outlined in this article. The difference between the for-profits and the nonprofits is that nonprofits are not able to take immediate action to change their business models. MOOCs have a very low completion rate; however, most MOOC participants view content as “edutainment” with no intention of receiving a completion certificate.

There is no one successful model for schools of business to follow. Even the universities that continue to successfully recruit high school graduates will find those students expecting new education models. There are already a number of high schools that have become “paperless” with no textbooks and even no libraries with physical books. The challenge for business schools is the ability to change. Historic models have high cost structures with fixed assets, high human resource costs, and tenured faculty who have little incentive to change. While the issues are clear, the road ahead will be difficult.

## REFERENCES

- Byrne J. A. (2014). GMAT test taking plunged 16.8%. *Poets and Quants*. Retrieved from <http://poetsandquants.com/2014/01/02/gmat-test-taking-plunged-last-year>
- CarringtonCrisp (2014). *See the Future 2014*. Retrieved from [http://www.carringtoncrisp.com/images/PDFs/See\\_The\\_Future\\_2014.pdf](http://www.carringtoncrisp.com/images/PDFs/See_The_Future_2014.pdf)
- Lumina Foundation (2015). *Award Credit Through Prior Learning Assessment*. Retrieved from <http://strategylabs.luminafoundation.org/higher-education-state-policy-agenda/core-element-three/action-17/>
- Moody's Investor Service (2013). *Outlook For Entire US Higher Education Sector Changed To Negative*. Retrieved from [https://www.moodys.com/research/Moodys-2013-outlook-for-entire-US-Higher-Education-sector-changed--PR\\_263866](https://www.moodys.com/research/Moodys-2013-outlook-for-entire-US-Higher-Education-sector-changed--PR_263866)
- Nishihara, N. and Everitt, L. (2014). Why interest in part-time MBA programs is sagging. *Poets and Quants*. Retrieved from <http://poetsandquantsforexecs.com/2014/07/20/why-interest-in-part-time-mba-programs-is-sagging/>
- Rivard, R. (2013). *Inside Higher Ed, Private Distress*. Retrieved from <https://www.insidehighered.com/news/2013/12/09/private-colleges-remain-under-weather>
- Rivard, R. (2013). *Inside Higher Ed, Massive (But Not Open)*. Retrieved from <https://www.insidehighered.com/news/2013/05/14/georgia-tech-and-udacity-roll-out-massive-new-low-cost-degree-program>
- State Higher Education Executive Officers (SHEEO). (2014). *State Higher Education Finance (2013)*. Retrieved from [http://www.sheeo.org/sites/default/files/publications/SHEF\\_FY13\\_04292014.pdf](http://www.sheeo.org/sites/default/files/publications/SHEF_FY13_04292014.pdf)
- Trustees of Boston University. (2015). *Reimagining Business Education: A World of Ideas*. Retrieved from <http://smgworld.bu.edu/businesseducationjam/>
- U.S. Department of Education, National Center for Education Statistics. (2013). *Digest of Education Statistics, 2012* (NCES 2014-015). Retrieved from <http://nces.ed.gov/fastfacts/display.asp?id=84>
- U.S. Department of Education, National Center for Education Statistics. (2013). *Digest of Education Statistics, 2012* (NCES 2014-015). Retrieved from [http://nces.ed.gov/programs/digest/d12/tables/dt12\\_005.asp](http://nces.ed.gov/programs/digest/d12/tables/dt12_005.asp)
- Western Interstate Commission for Higher Education (WICHE) (2012). *Knocking at the College Door: Projections of High School Graduates*. Retrieved from <http://www.wiche.edu/info/publications/knocking-8th/knocking-8th.pdf>

# Momentum on the Missouri

**Michael L. Faust**

*Northwest Missouri State University*

Before making the transition from a business setting to one in higher education, the Corporate Communications department at Kiewit Corporation insisted I write down stories I had heard from those present as far back as the company's WWII years. Doing so also brought back memories of four decades of change I had seen in the business environment in Omaha.

Memories were likewise spurred when a delegation of directors from the chamber of commerce in Springfield,

Missouri came to learn what was responsible for Omaha's economic success. Two years before, a chamber group from Wichita had the same mission. Due to my role with one of the city's Fortune 500 firms and a decade of service as a director of the Greater Omaha Chamber of Commerce, I was asked to participate in presentations to both groups.

Omaha may now be a model for other mid-sized cities to aspire to, but things weren't always so rosy. When I arrived in 1974, the central business district was struggling. The era of suburban malls had begun in the 1960s and downtown retail was disappearing. Borsheim's Jewelry (from where Bill Gates would many years later buy an engagement ring) was still on 16<sup>th</sup> Street, but it would eventually follow other retailers to the western parts of the city. After office workers went home, the central business district became a ghost town.

In 1986, the city suffered a major blow when Enron moved its headquarters to Houston. In 20/20 hindsight, that may have been for the best. But the loss of jobs

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and one of the city's most philanthropic corporations prompted soul-searching on what needed to change.

Soon after Enron's departure, the city faced the potential loss of ConAgra Foods when it needed a new headquarters due to rapid growth. An aid in retaining ConAgra was the 1987 passage of LB775, which made the state's tax climate friendlier to headquarters operations. The city's leaders wanted ConAgra's new headquarters downtown but CEO Charles M. "Mike" Harper wanted a suburban campus. The solution became a downtown campus. That required demolition of the historic "Jobbers Canyon" warehouse district near the riverfront, generating a lawsuit from a preservationist group.

The lawsuit failed and the campus was completed in the early 1990s. On trails circling the park and lake adjacent to the cluster of ConAgra buildings you will now see joggers, as well as families feeding the ducks and geese. For someone who grew up in a small Southwest Iowa town, Jobbers Canyon was a marvel to see. But its demolition and the creation of a Fortune 500 headquarters next to a new downtown green space was a key turning point for Omaha. An explosion of downtown redevelopment followed.

- ✓ On the Riverfront, the former site of a lead smelting plant and adjacent industrial areas were turned into a riverfront park and walkway, a restaurant, a marina, a new building for the National Park Service, a cable-stayed pedestrian bridge to Council Bluffs, two condominium towers, a new headquarters for Gallup, and a park from which a riverboat departs for cruises on the Missouri.
- ✓ At the former site of Union Pacific's repair shops immediately north of downtown, there is the CenturyLink convention center/arena with a Hilton Hotel across the street, and the TD Ameritrade baseball stadium that is the new home of the College World Series.
- ✓ In the heart of downtown, there is First National Bank of Omaha's 45-story tower, a new federal courthouse, the Holland Performing Arts Center, and the new headquarters buildings for Union Pacific and Gavilon (a spin-off of ConAgra Foods).

Major projects spurred related development, such as the hotels near the baseball stadium. The dramatic change in the atmosphere of the central business district renewed interest in downtown living. Numerous apartment and condominium projects have restored the residential population, attracting me in 2011 to become part of the wave of Omahans abandoning suburbia.

Like any metro area, Omaha has its share of challenges. But it is overall an exceptionally prosperous and economically diverse city. As a member of the Chamber's executive committee when groundwork for the dramatic changes were laid, I was fortunate to have a front row seat in observing and experiencing the factors that explain the city's revival. I will highlight five.

1. Liberal Annexation Rules – Nebraska law allows a city to annex adjacent cities up to the point the smaller city has a population of 10,000. By not being surrounded by suburbs, Omaha’s tax base was preserved. Financing the projects requiring public investment, as well as providing basic infrastructure for private sector projects, is far easier when a city has a triple-A bond rating.
2. Pro-Business Government – When I served on the Chamber’s executive committee, I often heard how outside firms wishing to invest in Omaha would comment on the relative lack of bureaucracy in government and how the City’s employees were helpful rather than obstructive. During this period of growth, the city had exceptional leadership in its Planning Department and a very pro-development leader in Mayor Hal Daub.
3. Fortune 500 Companies – Omaha is home to #4 Berkshire Hathaway, #135 Union Pacific, #184 ConAgra Foods, #236 Peter Kiewit Sons’, and #392 Mutual of Omaha. In addition, there are five Fortune 1000 companies. The scale of the city’s corporate citizens helps provide the private sector leadership required to “make things happen.” Another key ingredient, during my time on the Chamber board, was a dynamic president in retired Vice Admiral Bob Bell, who transformed his organization into what we often called “The Great Facilitator.”
4. Tradition of Generosity – There were \$75 million of personal, corporate and foundation donations toward the convention center/ arena and \$43 million for the new TD Ameritrade Park baseball stadium. The Holland Performing Arts Center was completely funded with private donations. Omaha is a city of surprising wealth, some created via its successful corporations and some through those who invested in Berkshire Hathaway long before Warren Buffett was well known.
5. Public-Private Partnerships – Omaha was fortunate to have a successful template in the Henry Doorly Zoo and Aquarium, widely acknowledged as one of the finest zoos in the world. The Zoo is owned by the City of Omaha but has been operated for 50 years by the nonprofit Omaha Zoological Society. The new entertainment venues are similarly managed through the Metropolitan Entertainment and Convention Authority and Omaha Performing Arts Society. Knowledge that civic facilities were to be governed by business people paved the way for generous private sector contributions.

The one item I would add to that short list would be people, and in particular the Midwestern Work Ethic. On the final page of the farewell piece I wrote for

Corporate Communications was a story from the late 1990s. The manager of Kiewit's Southern California operations had received a resume from a University of Nebraska senior who wanted to begin his career in California.

Before spending money on a plane ticket, Jerry asked me to conduct an initial screening interview in Omaha. I reported back that we put the student through several interviews at our headquarters office and everyone thought he was an outstanding prospect. Jerry said, "Fine, offer him \$600 a week and send him out on the next plane."

That was an excellent starting salary for the era. I was taken aback that he was willing to hire the student sight unseen. He replied, "Why not? I trust your judgment. Besides, I can't make a profit with these California beach bums. I'll take as many of your Midwestern farm kids as I can get." Jerry, who was a native of Southern California, knew from experience that the Midwestern Work Ethic was not a myth.

It is real, and those who contribute to this journal have the privilege of educating those who hail from the farms and rural towns that Jerry observed were producing so many outstanding young people. In my new affiliation with Northwest, I hope to see fewer of our graduates exported to places like California and see more establish successful careers in Missouri and the other states in our region.

# Developing an Interdisciplinary Cybersecurity Program in the Business School: Reflections and a View to the Future

Charles Hoffman

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## THE IMPORTANCE OF CYBERSECURITY EDUCATION IN THE BUSINESS SCHOOL

Cybersecurity is currently one of the most critical issues facing individuals, organizations, governments, and society (Kshetri, 2013). Media publications are replete with stories on breaches of information security and the adverse consequences for all stakeholders involved. However, cybersecurity is not just a technical issue but also a business and management issue (see sidebar). Industry trends suggest that cybersecurity is finally becoming part of the conversation in “C-Suites” and corporate boardrooms. Along with implementing technical measures, organizations are expending enormous efforts at training and awareness campaigns geared toward employees to help mitigate security risks pertaining to human vulnerability in skilled cyber-attacks. Despite such organizational efforts, there is little evidence that these campaigns work in practice.

*Based on a study of 257 benchmarked organizations across seven countries, a 2014 Ponemon Institute report estimates mean annualized cybercrime costs of \$7.6 million per year, with a range from \$0.5 million to \$61 million per company each year (a net 10.4 % average increase from 2013). The study estimates that the average costs to organizations of data breached is \$188 per record (U.S., year 2012).*

*The Securities and Exchange Commission (SEC) has issued guidance to public companies to disclose cybersecurity risks, exposure and incidents.*

*Forty-seven U.S. States now have laws requiring breach notifications.*



At the College of Business Administration of the University of Missouri–St. Louis, we believe one approach to closing this gap is to develop the next-generation of educated managers and professionals who understand both the managerial and technical aspects of cybersecurity. This approach engenders security thinking and skills as part of a strong business school curriculum instead of making security an afterthought to be relegated by managers to the purview of technical professionals. We envision an environment of student-led learning where we provide the frameworks for thinking about security and the resources to translate ideas into business-ready applications. A key component of our pedagogical approach will be a state-of-the-art dedicated cybersecurity laboratory. This lab space will be conducive to self-learning and collaboration in a learning studio setup. More importantly, the lab will provide a “sand-boxed” environment where students can safely learn and practice skills such as ethical hacking and penetration testing. Thus, students will have the opportunity to understand the variety of threats to information security and collaboratively explore innovative solutions to help mitigate them.

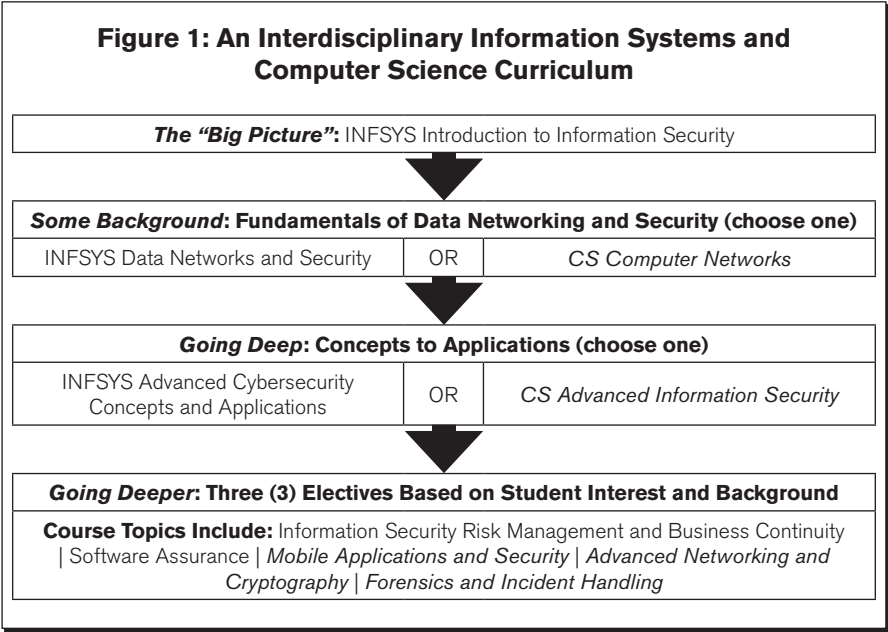
The College anticipates excellent career prospects for such trained professionals. The Bureau of Labor Statistics projects 37% growth in cybersecurity related jobs by 2020 whereas current annual median wages for individuals with a baccalaureate degree stands at \$86,170.

## **THE VALUE OF AN INTERDISCIPLINARY CURRICULUM**

Anticipating the growing need for cybersecurity professionals in the American Midwest, the University of Missouri–St. Louis recruited three cybersecurity experts as assistant professors. Two of these experts were hired by the College of Business Administration’s Information Systems department and one by the College of Arts and Sciences’ Computer Science department. Over the course of one semester, in weekly meetings, these experts together with their department chairs and other senior faculty members developed the structure of a six-course (18 credit hours) interdisciplinary graduate certificate that most expeditiously utilized the university’s existing resources. The Information Systems department’s Advisory Board provided valuable practical perspectives that guided the deliberations.

The certificate has been designed for managers, technical specialists, and entry level professionals with a baccalaureate degree and provides students the flexibility to focus on either the technical or managerial aspects of cybersecurity. A prior background in cybersecurity is not required for admission or success. Students can count the earned credit hours toward a Master of Science in Information Systems (MSIS) or Master of Science in Computer Science (MSCS) degree if they so choose. The unique curricular structure of the certificate is detailed in Figure 1. The courses in block font are offered within the College of Business Administration whereas the courses highlighted in italics are offered within the College of Arts & Sciences. A committee comprised of the chairs

and senior faculty members of the two departments has been formed to make admission decisions and advise students.



The journey toward developing an interdisciplinary program was not without its challenges. As is the case in many universities, there was no readily available framework to help establish a truly interdisciplinary program. Traditionally, new programs are housed in a single department and college. As a workaround, given the goal of a collaborative program, both departments worked toward placing the new program within the Graduate School as opposed to within either department/college. Further, questions on how “technical” versus how “business oriented” the certificate curriculum needed to be soon emerged. Again, traditionally cybersecurity education has been within the purview of mostly computer science and engineering departments incorporating a technical curriculum. Business schools on the other hand have traditionally covered cybersecurity in non-technical terms, if at all. After intense debates, both departments agreed to move beyond their comfort zones and instead focus on making the program relevant to practice and flexible to the individual needs of students while at the same time addressing the chasms between the business and technology sides of cybersecurity.

The successful collaboration on the cybersecurity certificate has enhanced the collegiality between the faculty members of the Information Systems and Computer Science departments. The departments will work together to publicize the certificate including setting up a common web portal to provide

prospective and existing students more information about the departments' faculty, coursework, internship and job opportunities, networking events, and other related topics. The departments will also jointly apply for the university to be designated as a Center of Academic Excellence in Information Assurance/Cyber Defense (CAE IA/CD) by the National Security Agency (NSA) and Department of Homeland Security (DHS). This designation will enable the university's cybersecurity students to apply for federal scholarships and positions. It will also uniquely qualify the university as being the only institution in the St. Louis Region to hold this prestigious designation. The university's mission of fostering synergies that advance the welfare of its stakeholders and benefits the global society aligns with the stated goal of the CAE IA/CD program "to reduce vulnerability in national information infrastructure...by promoting higher education and research in Information Assurance/Cyber Defense (IA/CD) and to produce a growing number of professionals with expertise in IA/CD disciplines."

## **AN ECOSYSTEM BUILT AROUND EDUCATION, INTERNSHIPS, AND NETWORKING**

The College of Business Administration envisions growing an ecosystem around cybersecurity education based on internships, engagement with security professionals through meet up groups, and a conference drawing together academics and practitioners from the American Midwest. The College will leverage its existing connections with local organizations and with the help of its Advisory Boards and alumni develop internship and job opportunities for cybersecurity students. It will host monthly meet ups of security professionals inviting distinguished practitioners to provide students the latest insights related to the security landscape. It will also host an annual conference inviting academics to present their latest research in cybersecurity in addition to a job fair for cybersecurity students and professionals in the American Midwest.

## **A VIEW TO THE FUTURE**

The University of Missouri–St. Louis' College of Business Administration sees itself in a pivotal role to prepare a generation of managers who will make mindful decisions to protect their organization's infrastructure and data from cyber threats. In preparation for the university's designation as an NSA/DHS Center for Academic Excellence, cybersecurity concepts will be introduced in numerous courses spanning the College's academic departments including Accounting, Finance, and Legal Studies. The College also recognizes the growing need for professionals trained in accounting, law, and cybersecurity to fill organizational roles related to regulatory compliance, contract oversight, and torts. It will actively explore synergies in these areas to benefit its students and society.

In summary, to the extent business schools in the American Midwest espouse developing talent that is attuned to the new realities for the business world, it is

imperative that they get actively involved in cybersecurity education. Similarly, to the extent business schools desire to impact business practice with high quality research, the time is now to draw on the wealth of research expertise across business school disciplines to collaboratively address the growing threats to business security.

## REFERENCES

- Bureau of Labor Statistics. (2015). Retrieved from <http://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm>
- Kshetri, N. (2013). Global cybersecurity: Issues and concerns. *Journal of Global Information Technology Management*, 16(4), 1–5.
- Ponemon Institute Cost of Cybercrime Study (2014). Retrieved from <http://www8.hp.com/us/en/software-solutions/ponemon-cyber-security-report/index.html?>
- United States Securities and Exchange Commission Disclosure Guidance. (2015). Retrieved from <http://www.sec.gov/divisions/corpfin/guidance/cfguidance-topic2.htm>

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# *Book Reviews*

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# The (Honest) Truth About Dishonesty: How We Lie to Everyone—Especially Ourselves

By Dan Ariely

Harper, New York, NY © 2012

*Reviewed by Cindy Kenkel*

Dan Ariely challenges the common perception that people apply a cost-benefit analysis to decisions to cheat in his book *The (Honest) Truth About Dishonesty*. The book outlines a series of experiments that show we even deceive ourselves about cheating. Any business professionals or educators who want to understand more about why their employees or students steal or cheat should read this book.

One example sure to hit home with business professionals is how golfers perceive their likelihood of moving a ball to a more favorable location on the course (with zero chance of getting caught). Apparently, adjusting the ball location with their club is considerably more acceptable than repositioning it with their hand. Respondents assumed *other* players would move a ball four inches with their club 23% of the time. When a foot instead of a club was used, the estimated frequency was cut down to 14% of the time, and when asked about the probability of moving the ball four inches with their hand, the players estimated others would only move it 10% of the time (p. 59). These same golfers were however much less willing to admit to using their hand (2.5% of the time), foot (4% of the time) or club (8% of the time) to move their own ball (p. 63). The same set of respondents predicted 40% of golfers would take a mulligan (a “do-over” in golf) on the first hole while only 15% would do this on the ninth hole (p. 61). His assessment of this behavior is, “When our actions are more distant from the execution of the dishonest act, when they are suspended, and when we can more easily rationalize them, golfers—like every other human on the planet—find it easier to be dishonest. It also seems that golfers, like everyone else, have the ability to be dishonest but at the same time think of themselves as honest” (p. 65).

In the chapter “Blinded by Our Own Motivations,” Ariely does an exceptional job of discussing how conflicts of interest in the medical field, academia, and financial markets are contributing to dishonest behavior. Regardless of if you are a dentist recommending expensive procedures to finance new equipment, a medical professional being subtly influenced by small gifts or drug samples, a pharmacology professor downplaying the side effects of a drug you have a financial interest in, or a financial adviser who receives kickbacks, conflict of interest plays a critical role in your decisions. Ariely understands that eliminating all conflicts of interest would be a nearly impossible task but he recommends we all need to acknowledge the power of these situations because most of us are aware of these conflicts but do not think they apply to us or those we trust to care for our health, education, or finances.

Most educators will not be surprised that students are more prone to report a death of a relative more frequently at the end of a semester, especially the week prior to final exams. A professor of biology at Eastern Connecticut State University, Mike Adams, collected data for several years and his research “has shown that grandmothers are ten times more likely to die before a midterm and nineteen times more likely to die before a final exam” (p. 107). His research also indicated students failing his course were fifty times more likely to lose a grandmother than students passing the course.

Based on the state of dishonesty in our world, Ariely concludes business school ethics courses and company seminars on code of conduct are not effectively curtailing dishonest behavior. He suggests the first step is to understand *why* people behave dishonestly in the first place. (I cannot help but point out this suggestion would likely increase the sale of his book, which will financially benefit Ariely). Simply reminding people to be honest at the moment of temptations is also amazingly effective. Students asked to recall the Ten Commandments were much less likely to cheat when tempted on a matrix task than students who had been asked to remember ten books they had read in high school. Although Ariely’s research confirmed what we have read about recently, honor codes are not particularly effective in curtailing cheating. What is more effective is asking students to sign a code immediately before completing a task or when turning in an assignment. “[T]he results suggest that it’s quite a challenge to create a long-term cultural change when it comes to ethics. On the positive side, it seems that when we are simply reminded of ethical standards, we behave more honorably” (p. 43).

Understanding when and why people are more likely to cheat is critical to trying to extinguish this behavior and this well-written book provides solid research that confirms Ariely’s theory that the decision to cheat is much more complicated than a basic cost-benefit analysis. You will find out how the chance of getting caught impacts your probability of cheating, how business policies set the stage for dishonesty, and why dishonesty seems to be so contagious.



# Scrum: The Art of Doing Twice the Work in Half the Time

By **Jeff Sutherland**

*Crown Business, New York, NY © 2014*

*Reviewed by Deborah Toomey*

Sutherland introduces the reader to the project management framework of Scrum, which he helped to create in 1993. With his background in the military, Sutherland saw how to take in a large amount of information, adapt quickly, and implement a solution seamlessly. A quote that typifies the need for this process is from Eisenhower, who “once observed that planning for combat is important, but as soon as the first shot is fired, your plans go up in smoke” (p. 6). The framework is based on how people actually work, rather than on how they claim to work.

Scrum was named after the process a rugby team uses to advance the ball. “Careful alignment, unity of purpose, and clarity of goal come together” (p. 8). Because of the industry in which Sutherland was involved, software development, Scrum is often thought of as a technology only process. However, it can easily be implemented in a variety of projects. Examples of such applications are described in the book, from the FBI intranet, called Sentinel, to the remodeling of a house. Compared to the waterfall method, also known as a Gantt chart, of project management, Scrum is much more productive, effective, and efficient. Whereas the waterfall method structures each step to be completed before the subsequent step should be started, Scrum utilizes a concurrent methodology.

The process includes an “Inspect and Adapt” cycle where each step is explained and analyzed to make sure the team is on the right track. Much like a GPS provides step by step directions for a driver, but is also able to react to a wrong turn, Scrum not only anticipates future needs, but also adapts to new

impediments. As a fighter pilot, Sutherland's training outlined four steps to complete during a mission: observe, orient, decide, and act. Similar to Deming's PDCA (plan, do, check, act) cycle, the key is to always be improving and acting on new information. Team members should be transcendent, autonomous, and cross-functional to be truly successful.

Some of the most important components of the Scrum process are the definition of goals, sprints, daily stand-ups, development and prioritization of a product backlog, and removal of impediments. Goals should be defined for the project that can be broken up into segments or sprints. At the end of each sprint, usually a short time period such as a week or two, all goals should be completed. Daily stand-ups allow each member of the three to nine person team to share what has been accomplished and what is to be completed that day. During the stand-ups each person can establish progress and how the other pieces will impact that person's daily activities. Each day the team is working on the product backlog, a listing of the different deliverables, programs, activities, or actions that must be completed. At the beginning of the project, each of the product backlog items are added to the Scrum board so that all can see what is to be completed. Each action is prioritized and sequenced to meet the project goals. The project backlog is an embodiment of the entire venture, constantly changing to meet the goals and needs of the team members. One of the most important components of the Scrum process is the identification and elimination of impediments. Impediments may be needs for information, budget allocations, or personnel acting as roadblocks. Before each step can be completed the impediments must be identified and addressed.

Each of the nine chapters of the book walks through a variety of scenarios that both successfully implemented Scrum and situations where an alternative management style was unsuccessful. Although the book is very detailed, explaining specific projects that were productively executed, many times early and most often under budget, if planning to utilize Scrum, the best part of the book is the appendix, where each of the steps and players in the Scrum process are defined. "What Scrum does is bring teams together to create great things, and that requires everyone not only to see the end goal, but to deliver incrementally toward that goal" (p. 21).

Throughout the entire book, the author tried to explain that Scrum could be implemented in a variety of problems both within and outside of business, such as education, governmental, or nonprofit organizations. Sutherland successfully incorporated connections to management processes of Total Quality Management, Agile Management, and Continuous Quality Improvement and demonstrated throughout how this function could easily and positively improve the management of projects, both large and small.

# Winning the Battle for Sales

By John Golden

McGraw-Hill, New York City, NY © 2012

*Reviewed by Douglas S. Russell*

What does successful selling and winning battles on some of the most famous historical battlefields all over the world have in common? A lot, according to John Golden, author of the book, *Winning the Battle for Sales*. Also, if you enjoy history, particularly military history and timeless conflicts, Golden's book does an excellent job of using famous battles as analogies to the corporate world, especially sales. *Winning the Battle for Sales* conveys selling best practices based on examples from such historical battles as The Battle of the Ice (1242), the Battle of Gravelines (1588), and The Siege of Petersburg (1864).

The book is structured into three parts: The Sales Call, Account Strategy, and Sales Management. There are sales lesson takeaways from each of the three parts based on some of the most famous historical battlefields and conflicts in Africa, Europe, Asia, the Americas, and the Middle East. The ageless stories disclose important lessons that can be applied to every sale, including teachings from:

- The Abyssinian Campaign (1868): the absolute necessity of solid preparation
- The Gunfight at the OK Corral (1881): the keys to preventing objections to ensure smooth negotiations
- The British Royal Navy vs. The Spanish Armada, Battle of Gravelines (1588): the importance of balancing efficiency and effectiveness
- The Battle of Clontarf (1014): essential information on turning unseen opportunity into a value driver

As you can see from the above list and from several more examples in the book, like the *Mutiny on the Bounty* and David's fight with Goliath, not all battles are associated with a war, but all conflicts have equally important sales analogies, along with valuable sales lessons.

The battles Golden chooses from which to derive the sales lessons are spread throughout history and across numerous cultures, from the English Hundred Years War to Egyptian battles, from the American Civil War to Samurai encounters. Although the history is pleasing and makes the book entertaining to read, the actual value is in the applied and relevant sales teachings Golden imparts using the battles from which to draw the lessons.

*Winning the Battle for Sales*, by John Golden, is a brilliantly enjoyable journey into the realm of some of history's most famous military victories, and blunders, to communicate some very valuable sales lessons. You will come away familiarized with some of history's greatest battles, with the added bonus of transferring those battlefield decisions to business sales strategies and tactics.

