

# The Coastal Business Journal

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*Spring, 2006*  
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## Welcome to the Spring 2006 Edition

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From the Editor:

Welcome to the Spring, 2006 issue of *The Coastal Business Journal* on-line. We think we have assembled some excellent, thought-provoking, and informative articles, and we certainly encourage your feedback.

Our *Journal's* content continues to remain eclectic, and we are happy for that. In fact, we encourage you to look at our recently expanded mission by clicking on the "About The Coastal Business Journal" link. We continue to utilize a rigorous double-blind review process, and have added some excellent Editorial Board members, and I thank them for their timely and thoughtful comments. With that in mind, because of the continued increase in submissions to the *Journal*, we remain interested in recruiting new Editorial Board members. If you are interested in being considered for our Board, I would encourage you to contact me.

Dean David DeCenzo, who has served as the *Journal's* editor for the past several issues, has left the Wall College to become our Provost. While we are very happy for him and are confident that he will do an excellent job for our University, we are sorry to see him leave. For the time being, I will be assuming the duties of Interim Editor.

We certainly thank you for taking the time to visit *The Coastal Business Journal*, and considering us for your scholarly work. We are hopeful that you will continue to consider submitting your work to us in the future, and we would encourage you to make your peers aware of us as well.

We hope you have an enjoyable and productive Summer!

Robert D. Nale, Interim Editor

5/31/06

# **AN ASSESSMENT OF UNDERGRADUATE WORK ETHIC REGARDING EMPLOYMENT AND EDUCATION**

**C. Mitchell Adrian; Longwood University**

## **ABSTRACT**

*This manuscript conducts a study of student work ethic and provides a comparison between the employment work ethic and academic work ethic of undergraduates. Findings suggest that while overall work ethic for both academics and employment can be considered "high," the concept of doing more than is required in academics is not highly valued by students. Unexpectedly, it was found that males and females exhibit significantly different work ethics regarding academics. Females, more than males, have a level of work ethic toward academics that is very similar to their work ethic toward employment.*

## **INTRODUCTION**

Working with undergraduate students can be both rewarding and frustrating. With some exceptions, undergraduate students often appear to pursue a minimalist route in their quest for graduation. Faculty can be baffled by a student's lack of motivation or concern regarding learning and later just as baffled when employers speak highly of that former student. Many of those students who choose to "get-by" academically appear to have a very different perspective regarding work. They throw themselves into their jobs in a way that leaves employers proud and professors puzzled. If students do not perceive a direct link between academic accomplishment and career success then it is likely that their prioritization of academic activities will differ greatly from their prioritization of direct employment or career related activities.

## **THE CURRENT GENERATION OF STUDENTS**

Researchers and marketers have long labeled successive generations of young adults. While generation labeling tends to be arbitrary it does provide some degree of behavior or attitude profiling of a specific segment of society (e.g. Ceng 1999; Donaton 1993; Kapner 1997; Neuborne and Kerwin 1999; Ritchie 1995; Stapinski 1999; Wellner 1999; Wolburg and Pokrywczynski 2001). Regardless of the variety of labels and descriptions applied, analysts typically note shifts or swings in general attitudes and values of each youth generation (Wolburg and Pokrywczynski 2001). It can be argued that each generation evolves during a different period in history and thus develops a different set of coping skills and expectations from earlier generations. For Baby Boomers, being a young, single adult was a brief transition period spent earning an education or doing military service. Alternately, today's youth are likely to remain single throughout their 20s and early 30s, delaying the onset of parenting and in many ways placing a different importance on family life (Ritchie 1995; Wolburg and Pokrywczynski 2001).

Within this generational context, evidence suggests that many students pursuing an undergraduate degree perceive a distinct difference between an “education” and a “degree” and subsequently value each differently (e.g. Rau and Durand 2000). This is supported by research indicating that on average, university students perceive little or no correlation between college academic performance (grade point average) and future material success (Eskilson and Wiley 1999; Rau and Durand 2000). As a result, students may not consider an “education” as particularly relevant or important but rather view the “degree” as the certificate needed for future employment. This suggests a significant and serious difference in perceptions between faculty and students in regards to the importance of education in the life of the individual.

### **The Perception of Higher Education**

One longitudinal study shows that the individual goals rated most highly by students are:

- 1) to have a warm caring relationship with another adult
- 2) to acquire mastery of skills for their occupation
- 3) to have a secure financial future
- 4) to have a comfortable relationship with their family
- 5) to be physically fit (Eskilson and Wiley 1999).

In this same study, academic performance did not impact the student’s perception of their ability to meet expectations of attaining a secure financial future, high income, or a high level of skills (Eskilson and Wiley 1999).

In most cases, we cannot entirely blame the current generation of undergraduate students for these attitudes. For their entire life they have attended an educational process they can easily take for granted. A high school diploma was once considered a unique mark of achievement, attainable only by those who combined their innate abilities with hard work and perseverance (Adrian and Palmer 1999). Now, a high school diploma or its General Educational Equivalency (GED), are viewed much more as an expected commodity. If “everyone” gets one, then getting yours becomes a matter of “doing time” rather than a result of achievement. This perception of education may be carrying over to the university environment. To an ever greater degree we find undergraduate students whose education is funded by someone else (usually parents) and we find a student attitude geared more toward the “degree” rather than the “education” (Adrian and Palmer 1999). As a result, the college degree is seen more as an entitlement, reducing the perceived value of the educational process. For many students, getting a college degree is seen as a “certificate program” - you put in your time and get your “ticket punched.” Getting the degree is paramount and individual learning is a secondary concern.

### **A Matter of Priority**

It should be remembered that in most cases the “raw materials” that universities start with are

in no way defective (Arnold 1994). With few exceptions, the high school GPA and SAT scores of incoming students suggest they can handle the academic rigors expected by most undergraduate programs. In a study by Farrell and Mudrack (1992) it was found that non-traditional students usually exhibit higher academic involvement than traditional students. Non-traditional students were also shown to have a greater internal locus of control, need for achievement, and stronger work ethic. Based upon these and other similar findings (e.g. Knox, et. al., 1992; Rau and Durand 2000), this manuscript attempts to examine issues of student work ethic. Specifically, this is an attempt to determine if there is a difference between student work ethic in regards to their academics versus their perception of employment. It is noted that many employers view “work ethic” as the primary key to employee and organizational success (Coplin 2005, Massie 2004).

## **A MEASURE OF WORK ETHIC AND PRIORITIES**

It is known that students typically attend college with the intention of gaining greater career and financial success later in life (e.g. Kimweli and Richards 1999). However, it may be the case that undergraduate students do not see the potential contribution of academic learning to their future success (e.g. Knox, et. al., 1992). It is possible that much of a student’s academic effort is shaped by that student’s perception of college and academics (Rau and Durand 2000), much as their career success is shaped by that person’s perception of work, career, and work ethic. The potential for differing perceptions of work ethic regarding academics and employment leads to the following two hypotheses:

- H<sub>1</sub>:** Students have a different work ethic regarding their perceptions of “employment” and “academics.”
- H<sub>2</sub>:** Students exhibit a stronger work ethic for what they consider “employment” than for what they consider “academics.”

## **METHODOLOGY**

To determine congruence/incongruence between student attitudes regarding employment and academics, the Survey of Work Values (SWV) designed by Woolack, Goodale, Wijting and Smith (Wollack, et. al., 1971) was modified for this analysis. These measures are based on a broad interpretation of the construct commonly referred to as the Protestant Work Ethic. The SWV consists of six sub-scales, each designed to measure a separate value dimension. These are: 1) Pride in Work; 2) Job Involvement; 3) Activity Preference; 4) Attitude Toward Earnings; 5) Social Status of the Job; and, 6) Upward Striving. The first three factors are classified as intrinsic, the second two as extrinsic and the final as a mixture of both.

Measurement items taken from the SWV were based on their transferability to the educational environment. To gather a sample, 25 course sections at a small (approximately 4500 students) state funded University in the mid-Atlantic region were randomly selected and the faculty were asked of their willingness to participate. Of those sections selected, over 95% of the faculty

agreed to participate (24 sections). Two independent sets of surveys were given, one to a sample of students measuring their work ethic toward employment and the other to a second sample of students measuring their work ethic toward academics. The “employment” survey used items as written for the SWV (Table 2) and the “academic” survey reworded the same items to make them suitable for the undergraduate educational environment (Table 3). Surveys were sent to each faculty member to administer in class. The surveys were passed out in an alternating pattern to ensure a somewhat equal representation of each sub-group across schools, departments, classes, etc. A total of 469 responses were collected, 240 from the Employment Work Ethic sample and 229 from the Academic Work Ethic sample. As with the original SWV, all items were measured on a five point Likert scale. An independent sample comparison of means was used to compare the two models and determine if significant differences exist.

### Demographics of the Sample

Of the students reporting demographic information, 51.2% responded to the employment questionnaire while 48.8% responded to the academic questionnaire (Table 1). Ranked by classification, 20.9% were freshmen, 24.5% sophomores, 26.0% juniors and 26.7% seniors. Ranked by degree program, 45.2% were business majors, 12.8% were education majors, and 39.7% were liberal arts majors. By gender, 41.6% of the respondents were male and 57.1% female. By race, 83.8% were white, 7.2% black, 2.6% Hispanic, 2.1% Asian and .2% American Indian. All ratios were consistent between the two samples and the race and gender percentages of the sample closely mirror those of the student population of the institution.

**Table 1 – Demographic profile of students (n=469)**

	Male	Female	Total
Gender	41.6%	57.1%	98.7%
Classification			
Freshmen	8.1%	12.8%	20.9%
Sophomore	7.5%	17.1%	24.5%
Junior	12.8%	13.2%	26.0%
Senior	13.2%	13.4%	26.7%
By Race			
White	34.8%	48.8%	83.6%
Black	3.0%	4.3%	7.2%
Hispanic	1.1%	1.5%	2.6%
Asian	1.1%	1.1%	2.1%
American Indian	0.2%	0.0%	0.2%
Area of Degree			
Business	25.2%	20.0%	45.2%
Education	1.7%	11.1%	12.8%
Arts and Sciences	14.3%	25.4%	39.7%

**Table 2 – Employment Work Ethic**

Items	N	Mean	Std. Dev
<b>Pride in Work</b>			
One who does a sloppy job at work should feel a little ashamed of oneself.	220	3.86	.790
A worker should feel some responsibly to do a decent job, whether or not their supervisor is around.	219	4.37	.538
There is nothing wrong with doing a poor job at work of one can get away with it	219	1.81	.702
There is nothing as satisfying as doing the best job possible	219	4.29	.860
One who feels no sense of pride in one's work is probably unhappy	219	3.58	.902
Only a fool worries about doing a job well, since it is important only that you do your job well enough to not get fired	218	1.72	.723
One should feel a sense of pride in one's work	219	4.41	.554
The most important thing about a job is liking the work	218	4.07	.880
Doing a good job should mean as much to a worker as a good paycheck	219	3.75	.890
<b>Job Involvement</b>			
Most companies have suggestion boxes for their workers, but I doubt that the companies take these suggestions seriously	220	2.90	.957
One who has an idea about how to improve one's own job should drop a note in the company suggestion box	219	3.90	.806
<b>Activity Preference</b>			
A job which requires the employee to be busy is better than a job which allows a lot of loafing	219	3.64	.836
If a person can get away with it, that person should try to work just a little less than the boss expects	219	1.98	.745
The best job that a worker can get is one that requires very little work	217	2.09	.806
When an employee can get away with it, the employee should take it easy	219	2.29	.815
A person would soon grow tired of loafing on a job and would probably be happier if he or she worked hard	219	3.74	.784
A person should try to stay busy all day rather than try to find ways to get out of doing work	218	3.78	.744
<b>Attitude Toward Earnings</b>			
A person should choose the job that pays the most	218	2.68	.888
A person should choose one job over another mostly because of the higher wages	218	2.67	.876
The only important part of most jobs is the paycheck	218	2.33	.901
<b>Social Status on the Job</b>			
One of the reasons that I work is to make my family respect me	217	2.70	1.02
Having a good job makes a person more worthy of praise from friends and family	218	3.20	.994
Those who hold down good jobs are respected in society	215	3.93	.736
<b>Upward Striving</b>			
Even if a person has a good job, the person should always be looking for a better job	215	3.00	.857
One should always be thinking about pulling oneself up at work and should work hard with the hope of being promoted to a higher-level job	216	3.97	.748
A promotion to a higher-level job usually means more worries and should be avoided for that reason	215	2.20	.769

**Table 3 – Academic Work Ethic**

Items	N	Mean	Std. Dev.
<b>Pride in Work</b>			
One who does a sloppy job at school should feel a little ashamed of oneself	207	3.55	.868
A student should feel some responsibly to do decent work, whether or not it is graded	207	3.97	.660
There is nothing wrong with poor performance in class if one can get away with it	207	2.28	.864
There is nothing as satisfying as doing the best you can at school	206	3.86	1.066
One who feels no sense of pride in one's school work is probably unhappy	207	3.18	.946
Only a fool worries about getting A's, since C's are all that's needed to graduate	208	1.98	.876
One should feel a sense of pride in one's work	207	4.32	.605
The most important thing about a class is liking the subject	207	3.37	1.05
Doing good work should mean as much to a student as getting good grades	206	3.74	.807
<b>Job Involvement</b>			
Most colleges have student evaluations of faculty, but I doubt that this college takes these evaluations seriously	208	3.08	1.148
One who has an idea about how to improve one's classes should write their ideas on the faculty evaluation comments	208	4.01	.610
<b>Activity Preference</b>			
An educational curriculum which requires the student to be busy is better than one which allows a lot of loafing	208	3.13	.912
If a person can get away with it, that person should try to work just a little less than their teacher expects	207	2.31	.838
The best class that a student can get is one that requires very little work	208	2.48	.873
When an student can get away with it in their program, the student should take it easy and not work too hard	208	2.48	.839
A person would soon grow tired of loafing at college and would probably be happier if he or she worked hard	208	3.46	.916
A student should try to stay busy all day rather than try to find ways to get out of doing class work	207	3.20	.958
<b>Attitude Toward Earnings</b>			
A student should choose the classes that give the best grades	207	2.71	.877
A student should choose one class section over another mostly because of the opportunity of higher grades	207	3.22	.896
The only important part of college is grades	208	2.23	.886
<b>Social Status on the Job</b>			
One of the reasons that I attend college is to make my family respect me	208	2.70	1.08
Having a college education makes a person more worthy of praise from friends and family	207	3.29	1.04
Those who have a college education are respected in society	206	3.99	.765
<b>Upward Striving</b>			
Even is a student has good grades, the student should always be looking to improve their performance	207	4.06	.666
One should always be thinking about pulling oneself up at college and should work hard with the hope of graduating with honors	206	3.77	.869
Accepting extra work from a teacher means more worries and should be avoided for that reason	207	2.70	.907

## RESULTS

Test results reveal a number of significant differences in student perceptions of employment work ethic and academic work ethic. Results suggest that students have a “strong” work ethic for both employment and academics (Tables 2 and 3). However, the independent sample comparison of means reveals a number of significantly different responses. Seven of the 11 items measuring Pride in Work were found to be significantly different at the .05 level (Table 4). Both of the two questions dealing with job involvement were found to be significant and four of the six measures for Activity preference were found to be significantly different. There was no significant difference in Attitude Towards Earnings and Social Status on the Job but all of the variables measuring Upward Striving were found to indicate a significant difference. Based on the number of significant findings and on the direction of the means, we can fail to reject the null hypothesis and conclude that:

- H<sub>1</sub>:** Students have a different work ethic regarding their perceptions of “employment” and “academics.”
- H<sub>2</sub>:** Students exhibit a stronger work ethic for what they consider “employment” than for what they consider “academics.”

**Table 4 - Comparison of Employment and Academic Work Ethic**  
(paraphrasing of combined statements)

Items	“Employment Mean”	“Academic Mean”	p
<b>Pride in Work</b>			
One who does a sloppy job should feel a little ashamed of oneself.	3.86	3.55	.000
A worker should feel responsibly to do decent work, whether or not it is graded/inspected.	4.37	3.97	.000
There is nothing wrong with poor performance if one can get away with it	1.81	2.28	.001
There is nothing as satisfying as doing the best you can at work/school	4.29	3.86	.034
One who feels no sense of pride in one’s work is probably unhappy	3.58	3.18	.726
Only a fool worries about doing a job well, since it is more than is necessary	1.72	1.98	.653
One should feel a sense of pride in one’s work	4.41	4.32	.968
The most important thing is to like your job/classes	4.07	3.37	.000
Doing a good job should mean as much as getting good pay/grades	3.75	3.74	.205
<b>Job Involvement</b>			
Most institutions have evaluations of superiors, but I doubt that most take them seriously	2.90	3.08	.000
If you have an idea to improve the organization, you should submit that suggestion	3.90	4.01	.001
<b>Activity Preference</b>			
It’s better to have a job/class that keeps you busy as opposed to loafing	3.64	3.13	.477
If you can get away with it, you should work as little as possible	1.98	2.31	.000
The best job/class you can get are the ones that require very little work	2.09	2.48	.000
When you can get away with it, you should take it easy and not work too hard	2.29	2.48	.166
A person would grow tired of loafing at school/work and would be			

**Table 4 - Comparison of Employment and Academic Work Ethic**  
(paraphrasing of combined statements)

Items	“Employment Mean”	“Academic Mean”	p
happier if he/she worked hard	3.74	2.48	.000
A person should try to stay busy rather than finding ways to get out of work/class	3.78	3.20	.000
<b>Attitude Toward Earnings</b>			
A person should choose the jobs/classes that pay the most/give the best grades	2.68	2.71	.896
One should choose the job/section mostly for higher wages/grades	2.67	3.22	.984
The only important part of work/school is pay/grades	2.33	2.23	.362
<b>Social Status on the Job</b>			
The reason I work/attend college is to make my family respect me	2.70	2.70	.163
Having a good job/education makes a person more worthy of praise from friends and family	3.20	3.26	.218
Those with a job/education are respected in society	3.93	3.99	.437
<b>Upward Striving</b>			
Even with good grades/job, one should always be looking to improve	3.00	4.06	.001
One should always be thinking about improving in hope of attaining a higher-level	3.97	3.77	.000
Attempting extra work means more worries and should be avoided	2.20	2.70	.000

Results of the survey were cross-examined based upon demographic information. The sample was divided into two groups based upon perceptions of employment and perceptions of academics. Analysis was run to determine if the groups differed internally based upon age, gender, race, academic classification and employment history. The only truly significant difference was found regarding gender (Table 5). In summary, it was found that females have a significantly stronger work ethic regarding academics than do males. However, regarding employment, there is no significant difference between genders.

**Table 5 - Academic Work Ethic, by Gender**

Items	Males	Females	p
<b>Pride in Work</b>			
One who does a sloppy job at school should feel a little ashamed of oneself	3.40	3.69	.010
A student should feel some responsibility to do decent work, whether or not it is graded	3.81	4.11	.000
There is nothing wrong with poor performance in class if one can get away with it	2.53	2.08	.000
There is nothing as satisfying as doing the best you can at school	3.65	4.03	.007
One who feels no sense of pride in one's school work is probably unhappy	2.95	3.32	.003
Only a fool worries about getting A's, since C's are all that's needed to graduate	2.13	1.85	.017
One should feel a sense of pride in one's work	4.27	4.35	.314
The most important thing about a class is liking the subject	3.34	3.43	.550
Doing good work should mean as much to a student as getting good grades	3.58	3.88	.004
<b>Job Involvement</b>			
Most colleges have student evaluations of faculty, but I doubt that this college takes these evaluations seriously	3.28	2.89	.009
One who has an idea about how to improve one's classes should write their ideas on the faculty evaluation comments	3.92	4.08	.057

**Table 5 - Academic Work Ethic, by Gender**

Items	Males	Females	p
<b>Activity Preference</b>			
An educational curriculum which requires the student to be busy is better than one which allows a lot of loafing	3.04	3.21	.172
If a person can get away with it, that person should try to work just a little less than their teacher expects	2.59	2.10	<b>.000</b>
The best class that a student can get is one that requires very little work	2.75	2.27	<b>.000</b>
When an student can get away with it in their program, the student should take it easy and not work too hard	2.71	2.28	<b>.000</b>
A person would soon grow tired of loafing at college and would probably be happier if he or she worked hard	3.28	3.63	<b>.004</b>
A student should try to stay busy all day rather than try to find ways to get out of doing class work	3.00	3.36	<b>.004</b>
<b>Attitude Toward Earnings</b>			
A student should choose the classes that give the best grades	2.98	2.49	<b>.000</b>
A student should choose one class section over another mostly because of the opportunity of higher grades	3.30	3.11	.113
The only important part of college is grades	2.24	2.26	.869
<b>Social Status on the Job</b>			
One of the reasons that I attend college is to make my family respect me	2.76	2.63	.340
Having a college education makes a person more worthy of praise from friends and family	3.42	3.24	.213
Those who have a college education are respected in society	3.99	3.98	.903
<b>Upward Striving</b>			
Even is a student has good grades, the student should always be looking to improve their performance	4.00	4.09	.295
One should always be thinking about pulling oneself up at college and should work hard with the hope of graduating with honors	3.54	3.94	<b>.000</b>
Accepting extra work from a teacher means more worries and should be avoided for that reason	2.84	2.56	<b>.018</b>

## DISCUSSION

Even though results suggest a reasonably high level of work ethic for the current generation of undergraduate students, there is a difference in their perception of employment work ethic and academic work ethic. Overall, it appears that student “Pride in Work” is significantly higher for employment than for academics. Conversely, perceptions of “Job Involvement” indicate that students assume a higher level of input toward changes to academia than they assume toward employment. This may be due to their greater experience in the academic environment or because of an “entitlement” expectation in which they perceive themselves as the customer of the university. “Activity Preference” and “Upward Striving” indicated significant results but results were mixed regarding directions.

Gender differences in perceptions of academic work ethic was the most interesting finding. In regards to “Pride in Work,” females appear to consider their academic accomplishments a significantly higher priority than do males. Regarding “Job Involvement,” females are more likely to want to contribute to the educational process and more likely to expect results from their contribution. Likewise, as shown in “Activity Preference,” females are more likely to want to stay

busy and less likely to attempt an “easier path” when compared to males. Females also show to be more “Upward Striving” than males regarding academics.

While preliminary, these unexpected findings may be significant to both educators and employers. It has been noted for some time that girls are outperforming boys in schoolwork (Hupp 2005). The fact that younger females are outperforming males academically may be an indicator that males in our society are learning a different work ethic for academics than for employment. This may bode poorly for undergraduate faculty as it can prove difficult to encourage male students to consider academic learning as a priority. This may also prove an issue for employers, as many view GPA’s as a predictor for job success. It may be that female GPA is a better predictor of their work ethic than are male GPA’s.

Although reasons for the difference between gender perceptions of academics cannot be determined here, it is possible that the greater prioritization of academics by females is evidenced in many ways in our society. Recent demographic shifts show that women are increasingly filling work positions that were once predominately male. Census data indicates a trend in which more women are attaining bachelor and master degrees than are men and that women tend to maintain higher GPAs in college than men (Census 2000). Findings of this manuscript may provide support in explaining this trend. Females are currently showing a higher rate of success in their academic endeavors due to the fact that they are placing a higher prioritization on academics than are their male counterparts.

### **Limitations and Suggestions for Future Research**

There are limitations to this study, most notably the use of a single institution and single sample. The university studied was a women’s college until 1978, at which time it became co-educational. Gender differences found in this study may be a residual of the public’s attitude toward the institution. It is possible that more “academically oriented” females consider this university as their “first choice” as compared to their male counterparts. It is also possible that, for traditional students with limited work experience, they may not yet have formed their own true work ethic. While they certainly have beliefs regarding what they consider to be an appropriate work ethic it is possible that this is a reflection of social expectations as opposed to their unique individual views. Future research should likely include a larger sample of students from a number of universities and should attempt to search more deeply into work ethics based upon employment experience.

In addition, this study was initially designed to be a simple experiment in student perceptions. The unexpected findings of gender-based differences should be examined further in a more methodical fashion. Future research may also focus on the influence of “employment” and “academic” work ethic on student grades. It is quite possible that those students who perform better academically will have a lower degree of separation or “gap” between their concept of employment and academic work ethic.

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### ABOUT THE AUTHOR

**Mitchell Adrian** earned his DBA in Business Management from Mississippi State University in 1996. He is currently serving as chair of the Department of Management, Marketing, Retailing, Information Systems and Business Education at Longwood University. He has received numerous awards for teaching excellence, both at the college and university level. His teaching and research interests include diversity management and business ethics and he has researched extensively into pedagogical studies. He has published in journals such as the *SAM Advanced Management Journal*, *Journal of Technical Writing and Communication*, *Journal of Education for Business*, *Journal of the Academy of Business Administration*, *Southern Business Review*, and the *International Review of Retail, Distribution and Consumer Research*.

# A CASE STUDY: CHANGING HUMAN RESOURCE MANAGEMENT EDUCATION TO FIT THE FIELD

Michael Bedell, California State University, Bakersfield  
Gary H. Kritz, Seton Hall University

## ABSTRACT

*The field of Human Resource Management has embarked upon a process of significant change. To keep up with changes to the field, Barksdale (1998) argued that so too must HR education change. This article presents an effort that changed the HR educational model from a functional silos focused model to an integrated outcome-based model. The logic for the change, what changes were made, and comments about the outcomes are presented.*

## INTRODUCTION

“The competitive landscape is changing, and new models of competitiveness are needed to deal with the challenges ahead. These responses reveal a new competitive reality demanding organizational capabilities that will enable firms to better serve their customers and to differentiate themselves from their competitors.” (Ulrich, 1997, p. 1)

The maintenance and development of human capital is necessary to sustain an organization’s competitive position. Quite simply, the organization needs to have a human capital mix (e.g., knowledge, skills, & abilities) that will facilitate goal achievement year after year. Organizations that fail to take a proactive approach to developing and maintaining human capital will be less competitive. As Pfeffer (1998) notes, “Companies that manage people right will outperform companies that don’t by 30% to 40%.” There are a variety of other authors that seem to concur with Pfeffer’s comments (e.g., Pfau & Kay, 2002).

The management and development of human capital is but one challenge presented by an increasingly complex marketplace. Other challenges to the organization may include global, capability awareness and development, change management, technology, and the employee life-cycle (Ulrich, 1997, p. 2-14). Ulrich (1997, p. 23) suggests that the Human Resource (HR) function is ideally positioned to help the organization manage these challenges. Becker & Huselid (1999) suggest that the HR function must reinvent itself as both a strategic partner and service provider within the organization. As a strategic partner, the HR function is responsible for ensuring that adequate numbers of employees exist, with the right skills, in the right positions, so that the organization can achieve the goals that are set by the senior management team (profitability, expansion into new markets). As a service provider the HR function’s role is to provide managers with information about people-related issues, provide employees with timely paychecks, benefit information, provide training and many other tasks. Fitz-enz (2001) suggests that HR has clearly evolved and to remain relevant, must change with the times and

learn to use data to make intelligent decisions. In other words, HR needs to measure and make sure that it is using its resources as well as possible.

The push to become a strategic partner and service provider of the organization has changed the skills mix that organizations seek when hiring HR graduates. The role of the HR faculty member is to make sure that the Knowledge, Skills, and Abilities (KSA) mix provided by the HR curriculum “generally” matches the needs of HR – present and future – so that when students complete their degrees they are employable. This discussion does not intend to suggest that Business Schools are vocational schools. Instead, Business Schools should perceive themselves and be perceived as a development organization. And as a development organization the goal is to develop individuals that (1) have an appropriate/current mix of KSA’s to meet future human capital needs and (2) sufficient foundation to continue developing themselves.

Consistent with the arguments that the HR function in organizations needs to update itself, Barksdale (1998) in the *Journal of Management Education* argues that we also must update HR education. He identifies four reasons why we should update HR education: the HR image problem; an overemphasis on compliance; ignorance of the financial side of business; and that HR has forgotten what it does well. A discussion with most HR professionals demonstrates that these reasons are valid, and there are probably several others that could also be included (e.g., strategic HR & changing technology). When these reasons are coupled with the growing chorus of industry and academic leaders who are increasingly talking about the link between treating people well and enhanced profitability, the argument to update HR education is even more compelling.

The evidence presented by both academic thought leaders and HR professionals are consistent. New HR professionals require skills – beyond the traditional HR tools (i.e., recruiting, compensation, etc.) – such as technology skills (Gartner Group, 1999; Miller, 2000; Shrivastava & Shaw, 2003; Thompson, 2000), the ability to think strategically (Becker, Huselid, Pickus, & Spratt, 1997), and the ability to understand how to measure and benchmark HR processes (Fitz-enz, 2001). Becker, Huselid, & Ulrich (2001, p. 12) note that most HR managers are very competent with regard to HR tasks but less competent at meeting strategic HR needs.

The Society for Human Resource Management (SHRM) presents a knowledge model as a recommendation for every HR professional (SHRM, 2005). The SHRM model recommends that every HR professional should have: (a) knowledge of his/her business; (b) an understanding of HR technology; (c) ethical behavior and the demonstration of personal credibility; and (d) knowledge of traditional HR needs and delivery. The linkage between these components and the strategic contribution of HR also needs to be understood.

### **PURPOSE OF THIS PAPER**

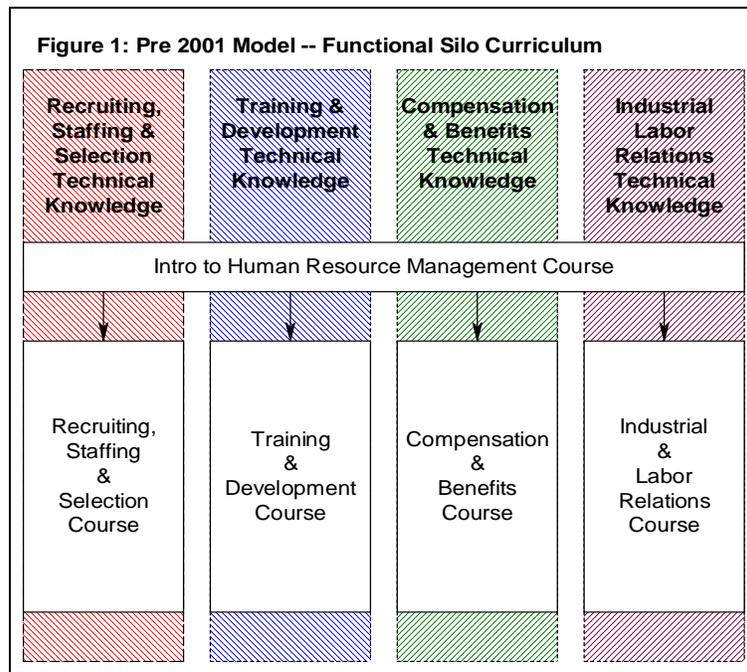
The purpose of this article is to go beyond the call for discussion presented by Barksdale (1998) to update HR education and provide a case example as to how one management department updated its HR concentration. Ideally, this article will start discussion and perhaps fan the flames of change.

The curriculum changes presented within were developed with input from a variety of stakeholders. The list of stakeholders includes HR professionals, current students, and students who graduated and started working in HR or management positions within the last several years. In addition, the authors relied upon: (1) one author's work experience as an Organizational Development specialist with a global retailer; (2) routine contacts with HR and management professionals in the business communities; (3) service with the local Society for Human Resource Management (SHRM) Board of Directors; and (4) service with a global provider of Human Resource Information Systems, (HRIS), and Supply Chain information systems – both of which are subsets of Enterprise Resource Planning, (ERP), software systems which are used to run entire organizations.

### THE STARTING POINT

An examination of various Human Resource curricula finds a heavy emphasis on the traditional HR tools with some focus on strategic HR and HRIS – and ours was no different. When we began this process, our curriculum was composed of the traditional list of courses with each one focusing on a subset of the traditional HR toolbox: (a) Introduction to Human Resources; (b) Compensation & Benefits; (c) Staffing, Recruiting, & Selection; (d) Training & Development; and (e) a Special Topics course. Students took four of the courses (See **Figure 1**) of which one was a required prerequisite. Although our curriculum did not, some curricula also include an HR Information Systems component to demonstrate how data can be used to make hiring decisions, to track training courses taken, and to help manage placement of people based on their skills. Feedback from our constituents strongly suggested that our HR students were well-versed in the traditional HR tools.

Courses were heavily focused on the “how to” of the traditional HR tools, and they provided great detail on these tools. There was little discussion that focused on the linkages that could be developed between traditional HR tools or as to how they could be implemented to facilitate the achievement of desired outcomes. Any discussion of linkages between the functional HR areas (compensation, recruiting) and strategic organizational goals (such as profitability or physical capacity growth) existed in a hypothetical and sometimes case study fashion, but these discussions would have been much more powerful if they had occurred consistently in every class and if the focus had been at the level of the HR department and not on the functional silo (recruiting). For the purpose of this paper, functional silos are defined as a focused subset of activities within the HR function. For example, compensation and all the activities related to compensation decisions would occur within the functional silo responsible for compensation.



Barksdale (1998) notes that the traditional focus has three weaknesses. First, this approach reflects the historical development of HR and is heavily compliance-oriented. Second, this approach tends to teach the traditional HR tools in a vacuum. That is, it teaches HR tools without accounting for the necessity of being able to: (a) connect HR practices to the achievement of strategic organizational goals; (b) benchmark HR processes; (c) measure HR financial effectiveness; (d) manage change; and (e) completely understand modern HR information systems. Third, the traditional HR tools were developed by examining the desired capabilities of personnel professionals of an earlier time.

## RE-ENGINEERING

Based on these arguments and other trends in the field, we began re-engineering our HR concentration during the 2001/2002 academic year. The change process started with a simple re-engineering question -- "What outcomes are desired?" We began the process of determining desired outcomes by starting with the stakeholders that planted the seed of change initially -- those organizations who hire our students and recent alumni. There was a recurring theme that we needed to develop HR generalists with skills beyond the traditional focus. The HR generalist is tasked with recruiting employees, managing compensation related problems, disciplinary issues, training, and union-management relations, just to name a few activities.

Discussions with our external stakeholders demonstrated that the HR concentration should be developing HR generalists who had knowledge about the traditional HR skills (compensation, training, staffing) as well as (a) strategic HR, (b) HR information systems, and (c) organizational change. Assessment data confirmed that the students understood the traditional HR tools, but

were less capable at connecting the use of HR tools to achieving desired strategic outcomes or managing organizational change.

Strategic HR is a process by which the organization's collective human capital, or the collective knowledge, skills, and abilities are managed to facilitate the achievement of organizational goals. One typical organizational goal might be to increase profitability through physical expansion, which would mean the HR function should identify, train, decide on compensation, and physically move the individuals that would be likely to be successful in a new location. Another organizational goal might be to reduce reliance on outside contractors in the information technology sector, which means the HR function needs to manage an aggressive hiring campaign and then make sure that the compensation plan is in place so that adequate numbers of employees with the right skills can be hired to replace the outside contractors. Strategic HR is the process of identifying the organization's goals, translating those goals into strategic HR goals, and then coordinating the various areas within HR in their movement towards goal achievement. The new HR professional needs to understand the linkages present in order to be part of these processes.

Human Resource Information Systems are database software products that manage all of the data that organizations maintain about their employees. Much like the introduction of spreadsheets and accounting information systems to accounting students, new HR graduates are expected to understand how an HRIS works and ideally have some familiarity. For example, when making a recommendation about which employee to interview for an open position, the HRIS can be used to match the specific tasks required of the job with all applicants and their skills. This results in a much faster decision about who is qualified so that valuable interview time and resources are not wasted on an unqualified applicant. The HRIS can also help by automating some processes, such as payroll, so that the HR professional can be left to work on strategic decisions.

Many of the traditional HR tools can be easily adapted to help manage change. For example, training is often used to manage change. The difference between training for jobs and training for change is the focus of the training. Recruiting might also be used to facilitate change by changing the kind of individual knowledge, skills, or abilities that are desired in the next hire.

When we began this process the goal was simple – determine the best way to add or augment courses to meet the identified knowledge goals. As the re-engineering process began, it was discovered that simply adding material would not necessarily develop the additional knowledge in a way that was useful to the student and more importantly transferable by the student into the workplace. The number of hours available in the HR concentration also served as a constraint. Six months and many conversations with stakeholders later -- a new HR concentration was developed.

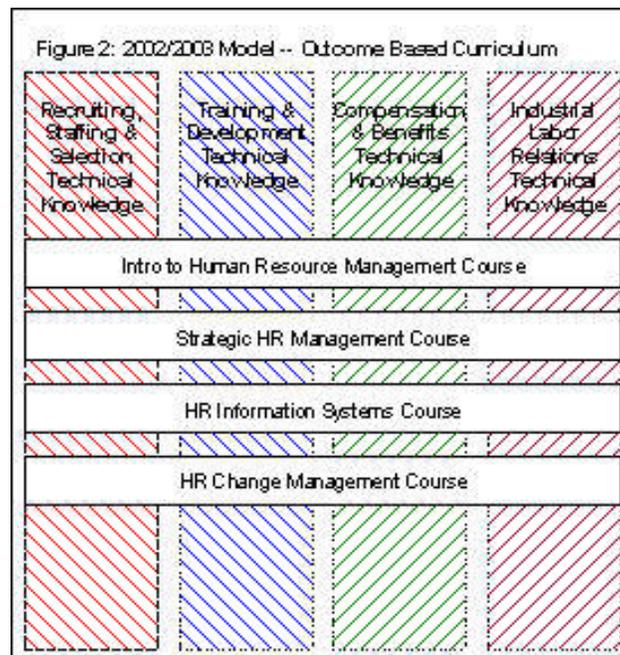
## **A NEW CURRICULUM**

The 2002/2003 academic year began with a streamlined and focused HR concentration with fewer course choices. The new concentration was designed by first deciding how to put the

goals listed previously into practice in the classroom. Once the desired outcomes were defined, courses could be developed that would teach the desired HR skills with the linkages to those desired outcomes. The new concentration continued to be four courses – now consisting of three required courses and one elective (See Figure 2). The new course list is:

- Introduction to Human Resource Management (required prerequisite)
- Human Resource Information Systems (required)
- Strategic Human Resource Management (required)
- Change Management or Negotiation Skills or Organizational Theory

The logic behind this was that the traditional HR tools could continue to be taught, but now they would be taught as part of the process towards achieving specific outcomes. In other words, the focus would start with outcomes and work “backwards” to the traditional HR tools instead of simply teaching the tools. This would develop linkages, an understanding of the HR system and processes, and knowledge of how each HR capability could contribute to a specific desired outcome. For example, instead of a specific focus on an HR tool or practice in an entire class (e.g., staffing and selection), each student would receive some aspect of staffing and selection in any course where it was relevant to the desired outcomes. This approach requires the student to use all of the traditional tools in the HR toolbox while the old approach focused on one HR process at a time.



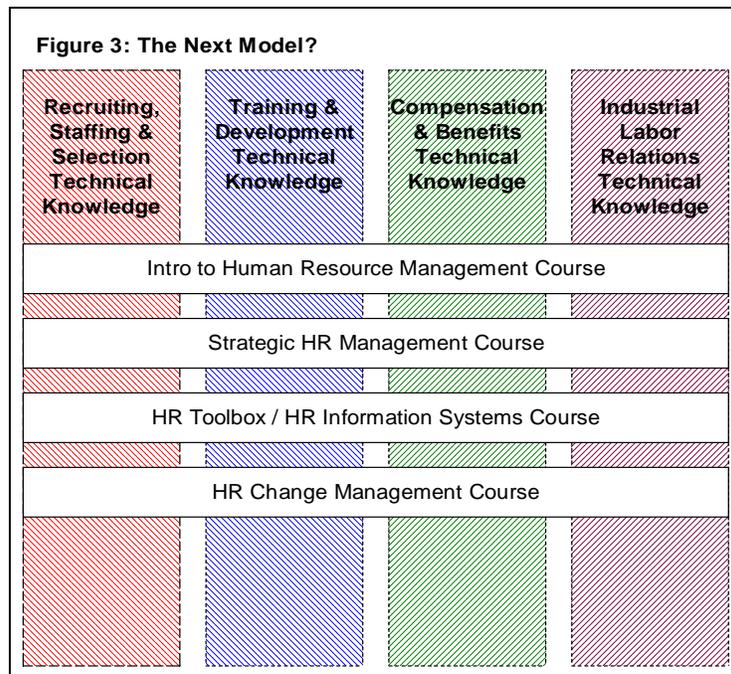
As an alternative, the simple addition of a capstone course to the original course sequence was considered. There are two reasons that we elected this other option. First, there were not enough free credit hours to require an HR capstone. The students would have developed depth in only two areas; and for a capstone course to work well, the students should be competent in all of the HR functional areas. Second, the integrated model would provide multiple opportunities to work with the traditional HR tools and the relationship that each HR tool has to the defined

outcomes. As most training methodologies have demonstrated, when more opportunities are provided to develop new skills, greater learning is more likely.

### CONCLUSION: WHAT HAVE WE LEARNED?

As with any new curriculum it is vital that assessment be completed to determine if the modifications have been successful. Much to the delight of the people that hire our students, the new curriculum seems to be helping us to develop new HR employees with desired competencies. The most often mentioned positive feedback indicates that our students understand the big picture and how to strategically partner with top management to develop, implement, and interpret HR metrics.

The most significant opportunity for improvement – as mentioned by our HR advisory board – is that the traditional HR skills (e.g., compensation, training, recruiting) are not as strong as they used to be in some of the students. In hindsight, perhaps we went too far. When we combine this feedback with the feedback we receive from our recent alumni, we find another opportunity for fine-tuning. Several recent alumni (and new entrants into the workforce) suggested that the HRIS course could be tailored to better fit the role of the HR generalist instead of the HRIS specialist. HR generalists work throughout the entire field of HR making daily decisions about hiring, compensation, training, and terminations, and they use an HR information system to support these activities. HRIS specialists focus on the decision support role of the HRIS as a delivered product while their daily activities focus on system implementation. A solid suggestion is to replace the time spent developing HRIS specialist knowledge with additional time on working with the HR tools such as compensation, training, or recruiting (See **Figure 3**).



While it is possible to focus too closely on the traditional HR tools, it is also possible to go too far the other direction and develop strategic thinkers that are not as familiar as they should be with the HR functional tools. Most of the thought leaders in HR strongly suggest that HR professionals need to add the strategic capability, metrics, and technology to their toolkits (Barksdale, 1998; Fitz-enz, 2001; Pfeffer, 1998; Ulrich, 1997). However, these same thought leaders say nothing about abandoning the traditional HR tools.

Another approach might be to examine HR from the perspective of the supply chain. In the supply chain model the focus is on processes that are used to deliver products or services to the final customer. The supply chain is broadly conceptualized in that it examines the entire manufacturing/service process from final customer back to initial suppliers of raw materials. However, to the sides of this supply chain there must be financial capital and human capital. This suggests that the role of HR is to ensure that adequate levels of human capital, as defined by desired knowledge, skills, and abilities, are provided such that the supply chain can continue functioning. This is not such a stretch as the role of accounting/finance is to ensure that adequate financial capital exists such that the supply chain can continue functioning. This approach would certainly focus on meeting the human capital needs of the supply chain, although there is potential for a short-term human capital focus to develop.

As many have suggested, the HR function must change to embrace the business that they are within; so must those who develop the HR professional. We must go beyond the simple addition of new topics by continuously monitoring our key constituent groups- the employing organization and the soon-to-graduate student who will want to be employable. In the spirit of continuous improvement we should also consider improving our assessments of what the students are learning. We must also go beyond simple assessment to systematically request feedback from our HR professional graduates. We might also consider working more closely with the professional organizations as their content more rapidly reflects workplace realities and changes.

Another way that the effectiveness of this change may be assessed is in actions taken by the outside stakeholder group. The general level of interest in our students has increased, and placement rates have increased for interns and new full-time positions. Several members of the local Society for Human Resource Management chapter – including the Vice-President of HR of a large local hospital; the Director of HR for the County Courts; and the College Recruiters for two global oil companies with a presence – have commented that the new curriculum has had a noticeable effect in that interns and new HR professionals have a better understanding of how HR activities fit into the big picture of the organization. This is not a task to be taken lightly. Much like designing a new product, the right stakeholders need to be involved, and the right questions must be asked. The end result, though, appears to be promising and worth the time and effort spent.

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## ABOUT THE AUTHORS

**Michael Bedell** (Ph.D., Indiana University) is an Associate Professor of Management, M.B.A. Program Director with the School of Business & Public Administration at California State University, Bakersfield.

**Gary H. Kritz** (Ph.D., Indiana University) is Assistant Professor of Marketing and Faculty Fellow of the Institute for International Business, Stillman School of Business, Seton Hall University.

# **DO AS I SAY- NOT AS I DO: AMERICAN COLLEGES PREACH TO CORPORATE AMERICA ABOUT DIVERSITY**

**Michael L. Monahan, Frostburg State University  
Amit J. Shah, Frostburg State University**

## **ABSTRACT**

Dramatic demographic changes are occurring in our society as our students and workforce becomes more diverse. The literature cites the benefits of having a diverse workforce for innovation, problem-solving, and competitive advantage. Institutions of higher education chastise business for not being inclusive in their senior management positions. However, a study of Masters I institutions revealed that their presidents are predominantly Caucasian (87%), married (79%), male (77%), first time presidents (71%), between 50-59 years of age (49%), with an earned doctorate (90%) and reached the presidency via Academic Affairs (47%)

The presidents of Masters I institutions are not representative of the general population and in most cases; are not representative of their student populations. This may become a problem as both the general and student population continues to transform and the necessity of working collaboratively with people of different backgrounds, skills and values becomes more pronounced.

## **INTRODUCTION**

The United States has often been called a melting pot as people from every corner of the world risk lives and property for the hope of a better life. Their individual abilities, customs, and values have blended into a stew of diversity and opportunity. These collective differences make the country stronger and provide a competitive edge for addressing future challenges.

Institutions of higher education are an integral component of America's economic engines. They serve as bell-ringers for change and use their bully pulpit to preach to the political, commercial, social, legal and technological elite. They are complex organizations with diversity in their structure, governance, and mission. Within their realms, challenges and opportunities abound, and solutions to problems are rarely simplistic.

However, despite their cries for greater multicultural diversity in business, government, and secular institutions, it is questionable if institutions of higher education follow their own advice. Thus, the purpose of this study is to determine if a segment of the higher education monolith does indeed practice what it preaches.

## INSTITUTIONAL PROFILES

There are 3,913 institutions of higher education in the United States; 41.7% are publicly controlled, 42.7% are privately controlled, and 15.6% are operated as for profit institutions (Carnegie Foundation, 2001). The 496 Masters I institutions account for 12.7% of the total institutions of higher education and produce one-fourth of the total degrees. Masters I institutions are almost equally comprised of public controlled and privately controlled institutions. Only one for-profit institution exists (Carnegie Foundation, 2001). Jeffrey Selingo (2000), writing in *Chronicle of Higher Education*, dubbed these institutions as the “Middle Child of Public Higher Education.” They are situated between the major universities and the community colleges, and offer associates, bachelors, masters, and selected doctoral degrees. Although they are classified as Masters I, nearly 70% of the degrees they award are bachelors (Carnegie Foundation, 2002). **Table 1** illustrates the percentage of degrees earned by students at all the institutions.

**Table 1**  
**Degrees Earned at Higher Education Institutions 2001\***

Degree	Total number Earned at All Institutions	Percentage of Degrees	Number Earned at Masters I Institutions	Percentage of Degrees	Masters I Percentage of Degrees
Associates	578,865	23.9%	16,532	2.8%	2.9%
Bachelors	1,244,171	51.4%	404,970	68.9%	32.5%
Masters	473,000	19.5%	156,791	26.7%	33.1%
Doctoral	79,707	3.3%	998	.2%	1.3%
1st Professional	44,904	1.9%	8,307	1.4%	18.5%
Total	2,420,647	100.0%	587,598	100.0%	24.3%

\* Data obtain from the National Center for Education Statistics

The Masters I classification consists of institutions that award at least 40 master’s degrees across at least three disciplines. However, there are a number of institutions that far exceed these minimal criteria! For example, the average institution awarded 285 master’s degrees in 1997-1998 across twelve disciplines. However, 3,667 master’s degrees in 28 fields were produced at the largest institution, and another institution, though smaller in terms of degree production, provided 1,274 degrees across 57 disciplines (Carnegie Foundation, 2001). Thus, central tendencies for this sector may be especially misleading since Masters I institutions encompass both those institutions that barely qualify by definition and gigantic degree granting institutions.

The institutions range in size from Goddard College in Vermont with an enrollment of just over 600 students to California State University- Long Beach with over 33,000 students (Carnegie, 2001). The number of institutions was almost perfectly split between public (50.2%) and private institutions (49.6%) Also, there was a reasonable distribution of institutions. Institutions with enrollments less than 2000 represented 13.6% of the respondents, while institutions with enrollments greater than 2000 but less 4000 represented the largest sample (25.9%), while the three remaining enrollment categories of 4000-6,000 (21.3%), 6,000-10,000(22.8%) and over 10,000 (16.4%) were surveyed.

The American Council on Education conducts a bi-annual survey of all institutions to determine their demographic composition. However, in their survey both Masters I and Masters II institutions are grouped together. Therefore, this study surveyed Masters I institutions to ascertain their composition.

## LITERATURE REVIEW

Diversity, as defined by the University of Maryland at College Park (1995,) is the otherness or differences from our own and apart from the groups which we belong, yet are present in other individuals and groups. These attributes include such factors as gender, race, age, ethnicity, physical abilities, sexual orientation, educational background, income, religious beliefs and work experiences. In other words, the characteristics that make people unique.

This uniqueness, which can spur innovation, can also lead to conflict as more and more primary differences enter the workplace. The new variables make it incumbent on management to coach and educate their employees to work together. J.T. Childs Jr., Vice-President, Global Workforce Diversity, IBM stated “No matter who you are, you will have to work with co-workers and customers who are different from you--black, white, brown, red or yellow, young or old, gay or straight, male or female, able-bodied or physically challenged” (Mayo, 1999). Further, Turner (1998) stated, “Our economy and our society are weakened if we exclude people from employment opportunities simply on the grounds of arbitrary and unfair stereotypes and assumptions -- whether these are based on age, sex, race, disability or anything else”.

Business often espouses the belief that people are an organization’s greatest resource. Their effort through collaboration yields innovation and creates social capital that Larson (2002) defined “as the quality and depth of relationships among people in any community, a school or an office, a factory or a laboratory”. However, many businesses have not yet learned how to utilize the varied skills of their employees. Business must seek to harness the power in diversity and exploit its potential for superior decision-making (Simons & Pelled, 1999). The inherent barriers due to different values and identities must be demolished so that people can work together in collaboration which can lead to multiple and diverse cognitive resources and extraordinary social capital. (Mayo, 1999). Jock Noble, CEO of [Diversity@work](#) passionately asserts; “Every

competitive advantage begins with people; people are different, differences create opportunity. That's diversity" <http://www.work.asn.au/businesscase>.

This belief has taken root at Canadian Occidental Petroleum Ltd. as President and CEO Bernard F. Isautier contends diversity is a source of competitive advantage that provides both value to the company and enhances the quality of decision-making. "If a company is to be successful in today's business environment, it must develop policies and practices in step with an increasingly diverse workforce" (Benimadhu, 1995).

In higher education Gurin (1999) found that a diverse student body benefits all students, enhances deep thinking and learning, and better prepares students to coexist in a pluralistic society.

Since the literature speaks adamantly about the advantages from diversity for students and business, shouldn't the senior university administration be expected to follow suit? Paradoxically, the opposite is true.

Shawver (1985) compiled a portrait of the 65 presidents who were members of the American Association of State Colleges, and likewise found the majority of presidents held doctorates, were white, male, and married. Reece (1997) profiled female presidents in the Southeast and found the president had a Ph.D. and had been in office five years or less. Further, the demographic portrait of presidents has been remarkably stable.

So, do higher education institutions have the moral acuity to judge other organizations shortfalls? By any measure, business does an abysmal job of promoting females and minorities since only 1.6% of the Fortune 500 CEO's are female and less than 4% are African American (Fortune, 2004). Prima facie, institutions of higher education are much more diverse than business. However, when comparing the gender and ethnicity of higher education institutions with the population in general and specifically, their student populations, the disparity is egregious.

## METHODOLOGY

A mail survey was simultaneously sent to all 494 Masters I presidents. If less than 50% of the surveys were returned after three weeks, a reminder notification was sent to participants who had not responded. After another three weeks if returns were below 50%, a final reminder was sent. After three mailings, a total of 254 valid responses (51.4%) were returned. Institutional and personal demographic questions asked included enrollment, location, gender, age, ethnicity, degree, academic expertise, and last position held.

## RESULTS

The data obtained paints a rich portrait of the men and women who run these extraordinary institutions. Nearly 77% of the respondent population was male. In

addition, the majority (86.6%) of presidents were Caucasian, and the majority (79.1%) were married. In addition, approximately half of the presidents were under the age of 60 (52.3%).

Nearly all (95.7%) of the respondents were permanent presidents. A doctoral degree had been earned by 90% of the respondents with nearly one-third of the presidents' academic expertise in education (31.1%) followed by the social sciences (27.6%). First-time presidents accounted for 70.5% of the respondents. The largest group of respondents had been presidents between one and five years (29.5%). In addition, a prior position in academic affairs appeared with the greatest frequency (46.9%) followed by a previous presidency at another institution (26.0). Presidents of public institutions represented 52.4% of the respondents and presidents of private institutions accounted for 47.6% of the population. Institutions with enrollments between 2,001 and 4,000 were the largest represented group (27.6%) followed closely by institutions with enrollments between 6,001 and 10,000 (26.4%). The Southeast contained the largest number of respondent institutions (25.2%), and mid-size cities possessed the greatest concentration of institutions (32.3%).

## DISCUSSION

This study found most (86.6%) presidents were Caucasian. Nearly 77% of the respondents were male, and the majority (79.1%) was married. An earned doctoral degree was most prevalent (89.7%) among the respondents. Nearly one-third of the presidents' academic expertise was in education. In addition, almost half (49.2%) of the presidents were between the ages of 50 and 60 years of age. First time presidents accounted for 70.5% of the respondents. The largest single group of respondents (47.2%) indicated academic affairs as their last position. This study's demographic findings are congruent with Corrigan's survey (2002) of the presidents of Associate institutions. Corrigan's respondents were similarly permanent presidents (96.3%), first presidencies (70.1%) and previous position President (24.5%) and Academic VP (41.2%)

There were a few interesting differences between Corrigan's Associates level leaders and this study's findings. Presidents of Associate institutions with less than 5 years in the position accounted for 52.8% while Masters I presidents accounted for 32.8%. Conversely, Masters I presidents serving over 15 years represented (25.3%) of the respondents while only 10.4% of the Associates presidents had served over 15 years.

An astounding 75% of Associate presidents were under the age of 60 while 47.2% of Masters I presidents were over 60 years of age. Only 41.9% of Associate presidents had a doctorate versus 89.7% of Masters I presidents. In addition 73% of Associate presidents had a background in education while only 31.6% of Masters I presidents had this area of academic expertise.

Nearly 5% more of Associate presidents were married. In relation to gender 26.8% were female as opposed to 23.2% of Master I presidents. Finally, non-Caucasians represented 13.9% of Associate presidents as compared with 13.4% of Masters I

presidents. Nevertheless, despite these variances, no statistically significant relationships emerged.

However, 76.8 % of presidents of Masters I institutions were male, and even in Associate institutions, males comprised 73.2 % of the presidencies. This inequality is further exacerbated when examining ethnicity. Caucasians inhabit the presidency 17% more than the Caucasian population as a whole. Conversely, Blacks were underrepresented by over 5%, Hispanics between 7-9%, and Asians over 2% as compared to their respective populations (see **Table 2**).

**Table 2**  
*Comparison of Ethnicity of Presidents with Census and Variance*

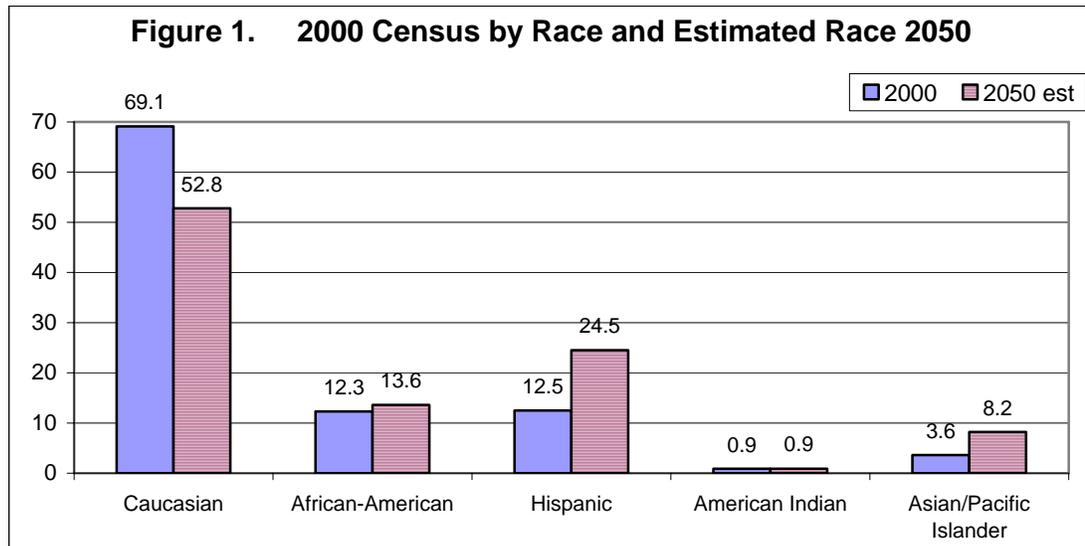
Race	Masters	Associates	2000 Census	Variance to	
				Masters	Associates
Caucasian	86.6	86.1	69.1	17.5	17.0
African-American	7.1	6.5	12.3	-5.2	-5.8
Hispanic	3.9	5.1	12.5	-8.6	-7.4
American Indian	0.8	nm	0.9	-0.1	-0.9
Asian/Pacific Islander	1.2	0.9	3.6	-2.4	-2.7
Other	0.4	1.4	1.6	-1.2	-0.2
Total	100.0	100.0	100.0	0	0

An even greater lack of parity exists between the presidents of these institutions and their students. Caucasian presidents are over represented between 14 – 22 % over their student populations while Black presidents were underrepresented by 6-7%, Hispanics by 4- 10% and Asian 4-6% (see **Table 3**).

**Table 3**  
*Comparison between Fall 2002 students with 2003 Presidents \* Latest available data*

	2002	2003	Variance	2002	2003	Variance
	Masters Students	Masters President		Associate Students	Associate Presidents	
Caucasian	72.7	86.6	13.9	63.6	86.1	22.5
Black	13.1	7.1	-6.0	13.4	6.5	- 6.9
Hispanic	8.2	3.9	-4.3	14.9	5.1	- 9.8
Asian	5.2	1.2	-4.0	6.9	0.9	- 6.0
American Indian	0.9	0.8	- .1	1.3	nm	
Total	100.0	100.0	0	100.0	100.0	

According to the United States Census, Caucasians accounted for 69% of the U.S. population in 2000 and Hispanics, the fastest growing group, has replaced African-Americans as the country's largest minority. In fact, many believe that soon after 2050, the United States may not have any ethnic majority. **Figure 1** illustrates the Census findings of 2000 and projects the ethnicity percentage at 2050.



Economic growth for minorities is crucial to society as a whole, however, the disparity between Whites and Hispanics and Black Americans has widened (Blank, 2001). As our information economy continues to transform work process and business models, there will be an increased need for internet access so that the digital divide by income and race does not hinder their personal and professional progress (Van Dusen, 2000).

This tremendous increase in minority populations will have profound effects on society and education. As the 21<sup>st</sup> century develops there will be an accelerated need for education and training to maintain a reasonable standard of living in the global economy. Hispanic educational achievement lags Caucasians. Camarillo and Bonilla found that “In 1997 about 33 percent of Whites had completed college, compared with about 11 percent for Hispanics and 14 percent for Blacks (p.116).

The gender and race of presidents is remarkably homogeneous. Even though women and non-Caucasians are making strides in higher education, they only account for less than one-fourth, and one-eighth of Masters I presidents respectively. Programs targeted to develop women and non-Caucasians, as candidates for presidencies are essential since women constitute the majority student population. As the ethnic composition of the United States changes, so to should future presidents and faculty should be representative of the students they serve. But where will new presidents come from? The ethnic composition of faculty in 2003 was overwhelmingly male (63.9%) and

Caucasian (78.5%) (See **Table 4**). This fact indicates that future presidents will not vary much than current presidents.

**Table 4**  
**Total Higher Education Faculty by Race and Gender 2003**

Race	Male	Female
Caucasian	78.5	78.7
Black	5.6	4.6
Hispanic	3.4	3.3
Asian	5.1	5.7
American Indian	0.5	0.2
Non Resident Alien	2.4	2.9
Unknown	4.5	4.4

Likewise, when comparing the ethnicity of the faculty to the student populations' similar disparate ratios are found. **Table 5** compared the 2002 student population with the Faculty of 2003 and again revealed the faculty composition is very similar to that of presidents, and far removed from their students.

**Table 5**  
**Comparison to Student 2002 and Faculty 2003 Latest Available Data**

	Total Students	Masters Students	Associates Students	Total Faculty	Var Fac to total Student	Var Fac to Masters Stud	Var Fac to Assoc Stude
Caucasian	67.1	72.7	63.6	78.6	11.5	5.9	15.0
Black	11.9	13.1	13.4	5.3	-6.6	-7.8	-8.1
Hispanic	10.0	8.2	14.9	3.4	-6.6	-4.8	-11.5
Asian	6.5	6.3	6.9	5.3	1.2	-1.0	-1.6
American Indian	1.0	1.1	1.3	0.5	-0.5	-0.6	-0.8
Non Resident Alien	3.6			2.6	-1.0		
	100.0	100	100.1	99.6			

While nearly 64% of males held faculty positions in 2003, less than 43% of their students were males. Conversely, females accounted for only 36% of faculty positions yet the students accounted for 57% of the students (**Table 6**).

**Table 6**  
**Gender Comparison to Student 2003 and Faculty 2003**

	Students	Faculty	Variance
Male	42.9	63.9	21
Female	57.1	36.1	-21
Totals	100	100	0

## CONCLUSIONS AND IMPLICATIONS

Remarkable changes will continue to occur as our society ages, incorporates an ever-increasing number of immigrants, and competes in the global economy. It is incumbent on institutions of higher education to prepare students to think and work collaboratively with others different from themselves. Fincher (1991) prophesized that higher education must deal with unexpected shifts in cultural pluralism, declining basic learning skills; and diverse learning habits, motives, and values. Tatum (2000) recommends that higher education institutions must continue to deepen its commitment to campus diversity since research and experience confirm the success of inclusion for students. Further, there should be more emphasis on diverse work teams for enhanced performance and innovation.

Institutions of higher education have made progress towards addressing diversity, as evidenced by the University of Maryland web resource [www.Diversityweb.org](http://www.Diversityweb.org). Similar sites are available at sister institutions such as the University of Michigan. However, it appears that higher education's efforts haven't been totally effective as an array of public and private firms have rushed to the marketplace to address this new dynamic. These firms includes The Federal Executive Institute & Management Development Center (<http://www.leadership.opm.gov/content.cfm?CAT=SDABN> ).

In addition, there is a plethora of websites designed to help business and constituents with diversity issues. A small sampling includes [www.diversityinc.com](http://www.diversityinc.com), [www.blackissues.com](http://www.blackissues.com), [www.hispanicissues.com](http://www.hispanicissues.com), [www.disabilityworld.com](http://www.disabilityworld.com), [www.workingmother.com](http://www.workingmother.com) [www.diversityandbusiness.com](http://www.diversityandbusiness.com), [www.diversitydtg.com](http://www.diversitydtg.com), [www.diversityinc.com](http://www.diversityinc.com), and [www.work.asn.au/businesscase](http://www.work.asn.au/businesscase).

Mauricio Velásquez, President of The Diversity Training Group asserts that business is not looking at diversity training because it is the right thing to do. Rather it is due to the demand of your employees and customers. "Corporate diversity efforts are about money, business, and the bottom-line" ([www.diversitydtg.com/articles/buscase.html](http://www.diversitydtg.com/articles/buscase.html))

Institutions of higher education are acting properly by sounding the bell and encouraging diversity, however, they must be leaders and practice what they preach. Perhaps the Center for Diversity and Business best encapsulates the advantage of a diverse workforce "Leveraging sustainable performance from the changing talents, cultures and values of the existing and future workforce, customers and suppliers" ([www.diversityandbusiness.com](http://www.diversityandbusiness.com)) Fully using the varied skills from all of your workers will lead to greater employee satisfaction, productivity, innovation, decision-making, and greater profits!

This paper has focused on the gap in diversity representation in the presidency of Masters I institutions. Further research could focus on the upcoming faculty and promote programs for females and minority, especially Hispanic scholars to join the Academy. Higher education institutions do provide a service by being a diversity watchdog,

however, they must make greater efforts to put their own house in order before they throw stones at others.

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#### ABOUT THE AUTHORS

**Michael Monahan** is a lecturer in the Department of Management at Frostburg State University in Maryland. He has 27 years of experience in administration and academia. His primary areas of interest are management, leadership, operations and strategic management.

**Amit Shah** is a Professor of Management and Director of Center for Community Partnerships at Frostburg State University in Maryland. He has 20 years of experience in the industry and academia. His primary areas of interest are strategic management, organizational behavior, and international management. He has published over 50 refereed publications in various journals, proceedings, and texts including the *SAM Advanced Management Journal*, *International Journal of Management*, *Management in Practice*, *American Business Review*, *Coastal Business Journal*, and *Feedback* and has conducted training for several organizations in the area of strategic management, organizational behavior, and culture. Shah serves on the Editorial Review Board of the *Advanced Management Journal* and *Coastal Business Journal*.

# AN EMPIRICAL STUDY OF THE RELATIONSHIP BETWEEN CONSUMER AND PRODUCER PRICE INDEX: A UNIT ROOT TEST AND TEST OF COINTEGRATION

Alireza Dorestani, The University of Memphis  
Lari H. Arjomand, Clayton State University

## ABSTRACT

*Policy makers have been long concerned about finding early indicators of inflation, a continuous rise in aggregate price level measured by the consumer price index (CPI). One of these indicators, which has been a target of many studies and has been supported by the production chain view, is the producer price index (PPI). The production chain view suggests that higher PPI will be passed to consumers through higher prices of finished goods. The purpose of this paper is to investigate the relationship between these two indexes using a unit root test and test of cointegration which are becoming more popular in time series analyses.*

## REVIEW OF PREVIOUS STUDIES

Many studies have evaluated the link between the producer price index and consumer price index as indicators of inflation. Researchers have investigated different components of these two indices, or in different time periods, and have summarized mixed results. For example, Gordon (1988) analyzed data from 1954 to 1987 and concluded that there is no significant statistical relationship between Consumer Price Index (CPI) and Producer Price Index (PPI). Emery and Chang (1996) used data from the 1990s and indicated that “workers’ compensation growth adjusted for productivity has no power to predict inflation.” Mehra (1991) and Huh and Trehan (1995) concluded that in the long run CPI leads labor cost, which is a major component of the PPI - a finding that contradicts the production chain view.

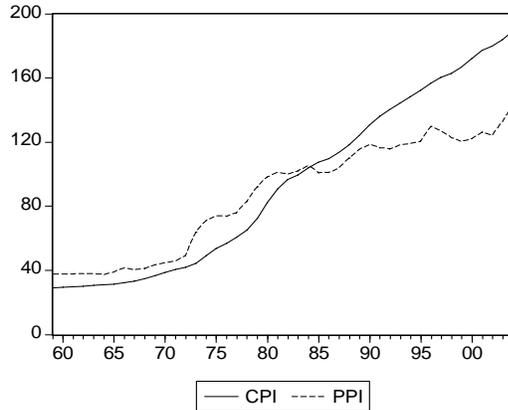
Other studies appear to show a different relationship. For example, Lown and Rich (1997), using data from 1965 to 1996, indicated that labor costs have an important role in predicting inflation. Furthermore, Brauer (1997) demonstrated a link between service sector wages and prices to the overall economy’s inflation. However, he also indicates that this link cannot be observed in goods producing sectors. Finally, Clark (1997) graphically represented the link between CPI and PPI and suggested that the CPI should be broken down into three categories: labor-cost-sensitive services, labor-cost-sensitive goods, and other expenditure categories. Using graphs, he concluded that there is only a link from service sector wages and prices to the economy’s inflation. Researchers, such as Clark, have not provided objective criteria to show how they have broken down these three categories of CPI indexes, and also their conclusions are heavily depended on observation periods. Other studies done in this area are those of Roth (1986), Garner (1989), Boughton and Branson (1991), Mehra (1993), and Feder (1994).

The purpose of this study is to statistically evaluate the links between CPI and PPI by applying a unit root test and test of cointegration—two tests which are becoming more popular in economic research, especially in time series analyses.

## DATA AND METHODOLOGY

All monthly data used in this study (from 1960 to 2005) are drawn from the U.S. Department of Labor, Bureau of Statistics. The classical linear regression model, unit root test, and test of cointegration have been employed in this study. Specifically, this research investigates the relationship between all urban consumer price indices (CPI) and producer price indices (PPI) for finished goods commodities. **Figure 1** represents the monthly data from 1960 to 2005.

**Figure 1: CPI and PPI (monthly data from 1960 to 2005)**



## EMPIRICAL RESULTS

To statistically evaluate the relationship between CPI and PPI, the CPI is regressed on PPI. The estimate model and some descriptive statistics are shown below.

$$CPI = -35.82589 + 1.492671PPI \quad \dots (1)$$

(t-statistics) (-5.775030) (22.51838)

Adjusted R-squared: 0.920156  
F-statistic: 507.0776  
Prob. (F-statistic): 0.000000  
Durbin-Watson stat: 0.127676

The above results show that all estimated coefficients, as well as F-statistics, are statistically significant. The high adjusted R-squared (0.92) is an indicator that there is a strong relationship between CPI and PPI. However, the Durbin-Watson statistic is very low (0.13). Based on Granger and Newbold (1986), whenever the Durbin-Watson statistic is less than adjusted R-squared, there is a good chance that the estimated regression suffers from the problem of spurious regression. In other words, it indicates that we are regressing a nonstationary time series against another nonstationary one.

A stochastic time series process is said to be stationary if its mean and variance are constant over time and that the value of the covariance between any two time periods does not depend on the actual time at which the covariance is computed. **Figure 1** graphically shows that there is the

possibility that CPI and PPI are not stationary because both series exhibit an upward sloping time trend. That is, it is possible that there is no relationship between CPI and PPI and the apparent relationship is nothing other than a third factor that causes both CPI and PPI to move in the same direction. To statistically test for this possibility, we employed a unit root test, and the results are shown in **Table 1**. For more information on a unit root test, and other econometric topics used in this study, the readers are referred to any econometrics textbooks such as those of Enders (2004), Green (2005), and Gujarati (2006).

**Table 1: Unit root tests of CPI and PPI**

	CPI		PPI	
	t-statistic	Prob.	t-statistic	Prob.
Augmented Dickey Fuller Test Statistic	0.172958	0.9676	-0.052847	0.9482
Test Critical Values:				
1% Level	-3.596616		-3.584743	
5% Level	-2.933158		-2.928142	
10% Level	-2.604867		-2.602225	

Based on **Table 1**, at any reasonable significance level, we fail to reject the null hypotheses that CPI and PPI have unit root; that is, both CPI and PPI are nonstationary and the regression of CPI on PPI is a spurious regression - a regression that has a high R-Squared and t-statistics that appear to be very significant but the results do not have any econometric meaning.

**Test of Cointegration**

Even though the two time series (CPI and PPI) are nonstationary, it is possible that they are cointegrated; that is, it is still possible that there is a long run equilibrium relation between these two indexes. To test whether the two time series are cointegrated, that is, to see whether or not there is a long run equilibrium between these two time series, the following residuals are calculated from a regression of CPI on PPI using equation (1).

$$e_t = CPI + 35.82589 - 1.492671PPI \quad \dots (2)$$

Now treating  $e_t$  as a time series, a unit root test (Dickey Fuller Test Statistic) can be applied to it. The results of test of cointegration are shown in **Table 2**.

**Table 2: Test of Cointegration**

	Residuals	
	t-statistic	Prob.
Augmented Dickey Fuller Test Statistic	-1.132370	0..2304
Test Critical Values:		
1% Level	-2.617364	
5% Level	-1.948313	
10% Level	-1.612229	

The results in Table 2 show that CPI and PPI are not cointegrated; there is no long run equilibrium between these two time series. In other words, one cannot look at the PPI to predict the CPI. Therefore, higher costs of production will not necessarily result in a higher inflation rate. To remedy this non long-run equilibrium, there are two possible remedies: (1) use the first difference of these two stochastic processes; or (2) break down these two indices into their different components.

In this study, the first remedy was employed. That is, we conducted a unit root test for the first difference of CPI and PPI. The results of a unit root tests of the first difference of these two time series are shown in **Table 3**. To avoid the loss of first observation, which can adversely affect the results, the following Prais-Winsten transformation is used:

$$CPI_1^* = \sqrt{1 - \rho^2} (CPI_1)$$

$$PPI_1^* = \sqrt{1 - \rho^2} (PPI_1)$$

Where  $\rho$  is a coefficient of autocorrelation and it is assumed to be 0.5. The coefficient of autocorrelation shows the relationship between the same time-series variables in two consecutive periods.

**Table 3: Unit root tests for first difference of CPI and PPI**

	$\Delta$ CPI		$\Delta$ PPI	
	t-statistic	Prob.	t-statistic	Prob.
Augmented Dickey Fuller Test Statistic	-2.159589	0.2234	-4.388383	0.0010
Test Critical Values:				
1% Level	-3.584743		-3.584743	
5% Level	-2.928142		-2.928142	
10% Level	-2.602225		-2.602225	

The first difference of CPI is still nonstationary and has a unit root; however, the first difference of PPI is stationary. In other words, the first difference of PPI does not have a unit root at any reasonable significance level.

The descriptive statistics that regresses the first difference of CPI on the first difference of PPI are shown below.

$$\Delta CPI = -3.021841 + 0.203020 \Delta PPI \quad \dots (3)$$

(t-statistics)    (-8.436161)    (2.562515)

Adjusted R-squared: 0.110082  
 F-statistic: 6.566483  
 Prob. (F-statistic): 0.013890  
 Durbin-Watson stat: 0.397144

The above results show that this estimated model (equation 3) does not suffer from the problem of spurious regression. Thus, it is possible to use changes in PPI to predict changes in CPI. In other words, changes in PPI are good indicators of changes in CPI.

## **POLICY IMPLICATIONS AND CONCLUSION**

Analyzing the link between the Consumer Price Index (CPI) and the Producer Price Index (PPI) has been a target of many studies. The link is important since it allows policy makers to predict future inflation by using PPI data. Through the analysis provided in this study, policy makers may be better prepared to avoid, or at least mitigate, the negative consequences of inflation. This paper is another effort in this area of research which uses a unit root test and test of cointegration in order to statistically analyze the link between CPI and PPI. Overall, the test results indicate that both CPI and PPI are nonstationary, have unit roots, and regression of CPI on PPI is a spurious one.

Even though both time series, CPI and PPI, are nonstationary, the authors have employed a cointegration test to see whether there is still long run equilibrium between CPI and PPI. The result of the cointegration test indicates that there is no long run equilibrium between these two time series. To correct the problem of nonstationary time series, the authors have used the first difference of both CPI and PPI and concluded that regression of the first difference of CPI on first difference of PPI does not suffer from the problem of spurious regression. This finding can help policy makers to rely more on the link between CPI and PPI and use changes in PPI to predict changes in CPI. In other words, it can be concluded that the combined regression-time-series-model, if used with proper care, can be an effective forecasting tool.

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### ABOUT THE AUTHORS

**Alireza Dorestani** received his Ph.D. in economics from the University of Missouri-Columbia in 2002. He worked for three and a half years as an Assistant Professor of Economics at Clayton State University and Albany State University. He is now pursuing his second Ph.D. in accountancy at the University of Memphis. He has many publications in industrial organization, macroeconomic issues, finance, and instructional development. His primary research interests are industrial organization and macroeconomics issues.

**Lari H. Arjomand** earned his Ph.D. in quantitative economics from the University of Oklahoma in 1980. A full Professor of Economics in School of Business at Clayton State University (CSU) in Morrow, Georgia. In 2001, he received CSU's Alice Smith Teaching Excellence Award, the top award for faculty members, as well as the School of Business' Research Professor of the Year. He has published in numerous journals and his primary field of research is in Applied and Instructional Development.

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