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Does Hard Work Pay Off?

Channon Chazelle and Kristen Gravlin

The purpose of this study was to determine if relationships exist between a student's level of work ethic, whether or not he or she pays for school, and his or her GPA. The participants were 83 undergraduate students from Lindenwood University's Human Subject Pool, Plato's Closet, and various colleges in the St. Louis area. To study this relationship, a survey was administered inquiring about the participants' opinions towards working, their GPA, and amount paid for school. Upon analyzing our data, no strong relationships were found between level of work ethic and amount paid for school or GPA and amount paid for school, but relationships were found between GPA and work ethic, GPA and amount of scholarship, and hours spent working on homework and work ethic.

Among individuals, there is a wide variety in attitudes towards work. Many studies have been performed measuring work ethic. Work ethic is defined as the belief that work itself is as important and fulfilling as the end result (Dictionary.com, 2009). A person with a high level of work ethic is typically said to value hard work and portray the personal qualities of honesty, industriousness, and integrity (McCortney & Engels, 2003). This study was designed to measure work ethic in undergraduate college students, and to relate this value to the amount of money one pays for his or her tuition. We suspected a correlation would exist between these two variables.

Numerous studies have been conducted in order to test work ethic among working adults, but few have been designed to specifically address college students transitioning into the workforce. One such study of adults related work ethic to welfare in America. Tang and Smith-Brandon (2001) divided their participants into three groups: welfare recipients (Group 1);

welfare recipients in training programs (Group 2); and employed past welfare recipients (Group 3). The researchers then administered surveys assessing the three groups' work ethic, income, and job tenure. Work ethic was measured by using the Protestant Work Ethic Scale (PWE).

PWE was originally developed in 1905 by Max Weber (as cited in Cokley, et al.) and stressed the importance of work, self-discipline, and responsibility. Isonio & Garza (as cited in Cokley, et al.) view PWE as reflecting hard work, having the motivation to do well, and consistently moving to make goals that last throughout life. The results of the study showed that individuals in the groups receiving welfare (Groups 1 and 2) had little work experience, low income, and low endorsement of the PWE. The participants in Group 3 were found to have higher education levels, more income, and longer job experience. They also displayed the highest level of Good, Respect, Power, and Budget (Tang & Smith-Brandon). The findings of this study showed that those not receiving money have a higher work ethic, so this led us to our hypothesis that students paying for their own school will have a higher sense of work ethic than those not paying themselves.

A study conducted by Cohen (1985) investigated the effects of Protestant Work Ethic on educational and occupational success. The study compared work ethic to high school GPA, educational and occupational aspiration, educational and occupational attainment, and income. To determine the level of Protestant Work Ethic, the researcher asked participants what criteria they used when choosing a job. Those who answered that the enjoyment of the work itself was most important expressed Protestant Work Ethic. The results showed that work ethic was positively correlated to GPA, educational and occupational attainment, and income. The

researchers also found that people interested in the enjoyment of work generally chose to complete more schooling than those uninterested in the enjoyment of work (Cohen).

Another study that looked at work ethic examined work-related characteristics to test the sense of work ethic in Canada. The participants took a survey inquiring about work ethic, attitudes about working, and background information. Work ethic was assessed by determining the amount of Protestant Work Ethic, work involvement, contemporary work ethic, individualism, work individualism, and loyalty (Ali & Azim, 2001). The results of this study showed that the commitment of Canada's employees was significantly low. They scored low on general individualism, but scored moderately on commitment involving work-related individualism. They also scored low in the items that compared leisure time and hard work, reporting that they preferred leisure time more than work. The results indicated that from the measures of Protestant work ethic, work involvement, contemporary work ethic, individualism, work individualism and loyalty, the individuals in Canada may focus less on work ethic than other places (Ali & Azim).

A study by Pino and Smith (2004) was designed to test how academic ethic differs in race and whether or not academic ethic is related to GPA. In a previous study, Rau and Durand described those possessing high academic ethic as placing their studies above social activities and studying on a daily basis in a disciplined fashion (as cited in Pino & Smith). To test their hypothesis, Pino and Smith surveyed 15,000 students at Georgia Southern University. Their results indicated that black students were more likely than white students to possess academic ethic, but on average black students had a lower GPA than white students. In general, however,

students possessing academic ethic had higher GPAs and were more likely to be female than those without academic ethic (Pino & Smith).

Another study measuring work ethic compared Protestant Work Ethic in Australians and Sri Lankans. The hypothesis was that, compared to Australia, Sri Lanka would have a low level of work ethic because they are economically depressed and have lack of achievement due to lack of motivation (Niles, 2001). In this study, the researcher used university students from Australia and Sri Lanka. The participants consisted of 134 Sri Lankans and 125 Australians ranging in age from 17 to 47 years old. The researchers had the participants' complete questionnaires, which displayed various questions and measures on work ethic. Both questionnaires were met to fit the participants' needs culturally, so they understood them completely. The questionnaires had statements involving work ethic on a rating scale. These included statements such as ones that ask whether or not the participant agrees that hard work is fulfilling and can enable a person to succeed. The participants rated each item from 1, indicating they strongly agree, to 4, indicating they disagree with the statement. On the total rating scale, Australians scored higher than Sri Lankans, but the difference between them was not significant (Niles). The findings show that culture may not be as big of an influence as other factors in determining work ethic.

Another point of interest concerning this study is whether or not work ethic has an effect on GPA. A previous study tested for a correlation between grades and the amount of hours a student spends studying. Students were asked three times in a semester about the amount of time they spent studying and their grades. Surprisingly, no correlation between the amount of time spent studying and grades was found, although they did find a correlation between attendance and grades (Rau & Durand, 2000).

A study by Duckworth and Seligman (2005) measured the relationship between self discipline and IQ. They wanted to see if students are more likely to progress in school if they have high self discipline or if IQ mainly determines their success. The participants consisted of 198 eighth grade students from various ethnic backgrounds and social economic statuses. The first study conducted in 2002 examined self-discipline by giving questionnaires to students, parents and teachers. After this, they did a second study on IQ the following year including data from many different tests the adolescents did in the past, which helped score academic performance. The researchers found that the more self-disciplined the adolescent was, the more likely he or she would do better not only in school grades, but was also more likely to have better attendance and attend more rigid academic high schools as well. It was also found that IQ did not have as significant an effect as self-discipline when regarding an individual's ongoing progress in school. In the end, this study found that students with high self discipline were more likely to be able to improve their grades over time whereas IQ did not have as much of an effect (Duckworth & Seligman).

From the previous research, we developed a study designed to measure work ethic in undergraduate college students and relate this value to the amount of money they pay for their tuition. Tang and Smith-Brandon's (2001) study indicated that those who were not receiving outside funds had a higher level of work ethic and had higher education levels, so we suspect that work ethic and whether or not a student pays for her or her school will be positively correlated. Duckworth and Seligman's (2005) study indicated that self-discipline strengthens students' performance in school, so we also hypothesized that work ethic will be positively correlated with GPA.

Method

Participants

Our participants consisted of 83 undergraduate students from the St. Louis area. Of the 83 participants, 50 of the students were recruited from the Human Subject Pool (HSP) at Lindenwood University and received bonus points in their introductory psychology, anthropology, and sociology classes. The remaining 23 participants were coworkers at Plato's Closet, a clothing store in Florissant, MO, who attended the University of Missouri-St. Louis and Florissant Valley Community College, and students from Meramec Community College recruited by word of mouth. These participants received no form of compensation. Out of 83 participants, 30 were male, 52 were female, and one gave no response. 33 were freshman, 13 were sophomores, 23 were juniors, and 14 were seniors. Students recruited came from 29 different majors. No data were omitted.

Materials

Participants from the HSP were tested in a quiet area of Lindenwood University's Butler Library at a small table. The remaining participants were tested at a table in the back room of Plato's Closet or at a quiet table at the researcher's house. Each participant received two informed consent forms explaining his or her rights as a participant. The survey given asked for general information such as gender, class in school, and GPA, as well as questions designed to assess the level of work ethic they possessed, the amount of time spent on various activities such as work or sports, and how much of the participant's tuition was paid for by his or herself, his or her parents, and scholarships (see Appendix A). The questions assessing the level of work ethic were taken from Lindsey Geeding's work ethic study and asked participants to rate the extent to

which they agreed with statements such as "There are few satisfactions equal to the realization that one has done his best at a job," and "I feel uneasy when there is little work for me to do" (Geeding, 2008). The participant was also given a feedback letter describing the purpose of the study and providing contact information should he or she desire to learn the results of the study. Once all the data was collected, the results were assessed using The Statistical Package for the Social Sciences (SPSS) in the third floor computer lab of Lindenwood University's Young Hall. *Procedure*

Upon arriving in the designated testing areas, participants were told they would be taking a survey inquiring about their work habits, opinions about working, and whether or not they were paying for their own school. The participants were then given two informed consent forms, one for them to keep and one to return to the researcher. Next, the participants were given the survey to complete. Once the survey was completed, the participants were verbally informed that the purpose of the study was to determine if a relationship exists between work ethic and whether or not they pay for school. After being verbally informed of the purpose, the participants were given a feedback letter restating the purpose of our study and providing them with contact information should they choose to inquire about the results of the study.

Results

In order to determine whether or not a relationship exists between work ethic and amount one pays for school, a correlational analysis revealed a Pearson's r= -.096 (see Table 1). Figure 1 depicts a scatter plot of the findings. In order to determine if a relationship exists between GPA and amount one pays for school, a correlational analysis revealed a Pearson's r= -.045 (see Table 2). Figure 2 depicts a scatterplot of the findings. In order to determine if a relationship exists

between GPA and work ethic, a correlational analysis revealed a Pearson's r=.153 (see Table 3). Figure 3 depicts a scatterplot of the findings. In order to determine if a relationship exists between GPA and the amount of scholarship a student receives, a correlational analysis revealed a Pearson's r=.238 (see Table 4). Figure 4 depicts a scatterplot of the findings. In order to determine if a relationship exists between work ethic and the amount of hours spent on homework, a correlational analysis of work ethic and the amount of hours spent on homework revealed a Pearson's r=.369 (see Table 5). Figure 5 depicts a scatterplot of the findings.

Discussion

Our study revealed that our hypothesis that a correlation would exist between work ethic and the amount a student pays for school was incorrect. The results instead showed a slightly negative correlation (r=-.096). This result differs from Tang and Smith-Brandon's (2001) welfare study that found that adults who earned their own money had higher levels of work ethic than those receiving welfare. Although this hypothesis was incorrect, our other hypothesis that GPA and work ethic would be positively correlated was supported by a weak positive correlation (r=.153). These findings are in accordance with Cohen's (1985) study that found that work ethic was positively related to GPA.

Although one of our hypotheses was not supported, we did find a significant correlation between work ethic and the amount of hours spent on homework each week (r=.369). This is logical because if one has a high level of work ethic, one values the learning experience homework provides. We also found significance in the correlational analysis of GPA and how much the student is receiving in scholarships (r=.238). This also makes sense because many students must maintain a high GPA to maintain their academic scholarships.

We have several theories for why our results contrasted previous findings. First, we were unable to recruit as many participants as we wanted, so our results may not be representative of the population in general. Second, since we constructed our own work ethic survey, it may not have been a valid measurement of work ethic. Third, many people were unsure of their GPA as well as the amount of money they are paying yearly for school, so inaccurate data may have been collected. Fourth, the group we surveyed may have been a biased sample. Since we only surveyed students currently enrolled in college classes, their work ethic may have been greater than that of the public since choosing to attend college displays a stronger desire to work hard than those not attending college.

If one wishes to do further research on this topic, several design changes should be made. First, work ethic may vary among different locations and cultures, so other areas should be surveyed in order to obtain a more representative sample. In addition, a larger sample size would be ideal to survey people of different cultures to see if there is a variation in work ethic. Second, future researchers should use a standardized work ethic survey, such as the Protestant Work Ethic survey, to test the level of work ethic. By using a test that has been widely used and normed, one could be more confident in the reliability and validity of the survey. Third, to avoid confusion regarding GPA and the amount one pays for tuition, future researchers could obtain permission to access financial and transcript information from the registrar. Fourth, to avoid the biased sample of college students, a question could be added to the survey that asks if the students are going to school by their own will or if their parents, for example, are pressuring them to attend. This would eliminate the confounding variable of higher work ethic in college students.

As a whole, our hypothesis that work ethic would relate to amount paid for school was not supported, but relationships were found between work ethic and GPA, work ethic and hours spent on homework each week, and GPA and the amount the student receives in scholarships. Although this study did not show correlations regarding the amount a student pays for school, changes in the design of the survey may prove to be effective in examining work ethic in the future.

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Author Note

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Anyone interested in further information regarding this study can contact Channon at cec036@lionmail.lindenwood.edu or Kristen at monkbue53@yahoo.com.

Appendix A

			Appendix A	A		
STUDI	ENT SURVEY					
ID#	(Assign	ned by Researcher)				
1.	Are you MALE	E or FEMALE?				
2.	Are you a					
	FRESHMAN	SOPHOMORE	JUNIOR		SENIOR	OTHER
3.	What is your m	ajor?				
Please	circle the respo	nse that best repres	ents your opinio	n		
4.	There are few s	satisfactions equal to	the realization th	at one has do	one his or her best at a jol	0.
	Strongly Disag	ree	Neutral		Strongly Agree	
	1	2	3	4	5	
5.	The most diffic	ult college courses u	sually turn out to	be the most	rewarding.	
	Strongly Disag	ree	Neutral		Strongly Agree	
	1	2	3	4	5	
6.	Most people who	o don't succeed in lif	e are just plain la	zy.		
	Strongly Disag	ree	Neutral		Strongly Agree	
	1	2	3	4	5	
7.	A person who su	apports him or hersel	f is likely to be m	ore hard-wo	rking than one to whom	everything
is g	given.					
	Strongly Disag	ree	Neutral		Strongly Agree	
	1	2	3	4	5	
8.	Anyone who is a	able and willing to w	ork hard has a go	od chance of	succeeding.	
	Strongly Disag	ree	Neutral		Strongly Agree	
	1	2	3	4	5	

9. I	9. If people work hard enough they are likely to make a good life for themselves.						
	Strongly Disagree		Neutral		Strongly Agree		
	1	2	3	4	5		
10.	I feel uneasy when th	ere is little	work for me to do.				
	Strongly Disagree		Neutral		Strongly Agree		
	1	2	3	4	5		
11.	A distaste for hard we	ork usually	reflects a weakness of c	haracter			
	Strongly Disagree		Neutral		Strongly Agree		
	1	2	3	4	5		
12.	What is your cumulat	ive college	GPA?				
13.	On a scale of 1 to 5, h	now import	ant do you believe your	degree is	s to getting your desired job?		
	Not Important		Neutral		Very Important		
	1	2	3	4	5		
14.	On a scale of 1 to 5, h	now import	ant do you think a high	GPA is t	o getting hired in your desired field?		
	Not Important		Neutral		Very Important		
	1	2	3	4	5		
15.	Do you plan on getting	ig further e	ducation after getting yo	our bache	elor's or associate's degree?		
	YES		NO NOT	SURE			
16.	How many hours each	h week do	you work on homework	?	hours per week		
17.	Do you have a job ou	tside of sch	nool? YES or NO				
	a. If so, how ma	any hours e	each week do you work?	·	hours per week		
18.	8. Do you participate in Work and Learn? YES or NO						
	a. If so, how ma	any hours e	each week do you work?	·	hours per week		
19.	Do you participate in	after-schoo	ol activities such as spor	ts or club	os? YES or NO		
	a. If so, how ma	any hours e	each week do you spend	on after-	school activities? hours per wee	k	

2	1
う	4

20.	How many nights each week do you go out with friends? nights per week					
21.	. Of your total tuition, roughly how much is paid by each of the following?					
	a. Parent or Guardian: dollars per year					
	b.	You: dollars per year				
	c.	Scholarship: dollars per year				
	d.	Other (Specify): dollars per year				

		Level of Work	How much you
		Ethic	spend on school
Level of Work Ethic	Pearson Correlation	1.000	096
	Sig. (2-tailed)		.411
	N	83.000	75
How much you spend on	Pearson Correlation	096	1.000
school	Sig. (2-tailed)	.411	
	N	75	75.000

Table 1. Correlation between work ethic and how much one spends on school.

Work Ethic vs. Amount Spent on School

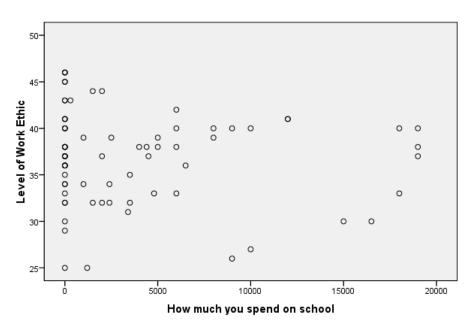


Figure 1. Scatter plot of work ethic and how much one spends on school.

			How much you
		GPA	spend on school
GPA	Pearson Correlation	1.000	045
	Sig. (2-tailed)		.707
	N	79.000	73
How much you spend on	Pearson Correlation	045	1.000
school	Sig. (2-tailed)	.707	
	N	73	75.000

Table 2. Correlation between GPA and amount student spends on school

GPA vs. Amount Spent on School

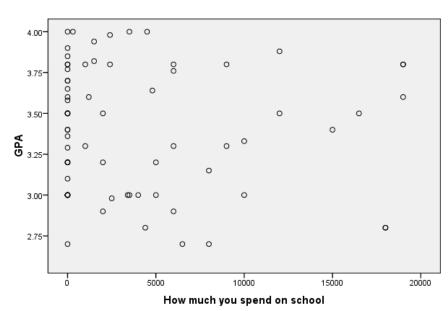


Figure 2. Scatter plot of GPA and amount students spends on school

			Level of Work
		GPA	Ethic
GPA	Pearson Correlation	1.000	.153
	Sig. (2-tailed)		.179
	N	79.000	79
Level of Work Ethic	Pearson Correlation	.153	1.000
	Sig. (2-tailed)	.179	
	N	79	83.000

Table 3. Correlation between GPA and level of work ethic



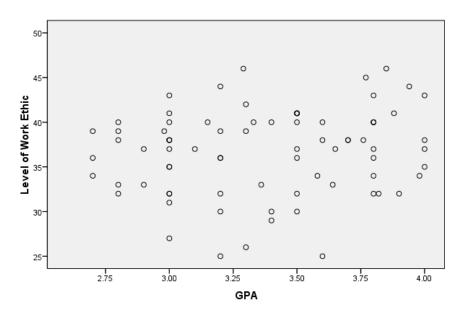
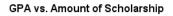


Figure 3. Scatter plot of GPA and level of work ethic

	_		How much
			scholarship pays
		GPA	for
GPA	Pearson Correlation	1.000	.238
	Sig. (2-tailed)		.063
	N	79.000	62
How much scholarship pays	Pearson Correlation	.238	1.000
for	Sig. (2-tailed)	.063	
	N	62	63.000

Table 4. Correlation between GPA and how much scholarship pays for



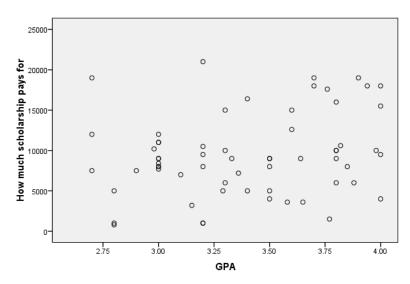


Figure 4. Scatter plot of GPA and amount scholarship pays for

		Hours Spent on	Level of Work
		Homework	Ethic
Hours Spent on Homework	Pearson Correlation	1.000	.369 ~
	Sig. (2-tailed)		.001
	N	81.000	81
Level of Work Ethic	Pearson Correlation	.369 [~]	1.000
	Sig. (2-tailed)	.001	
	N	81	83.000

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Table 5. Correlation between hours spent on homework and level of work ethic

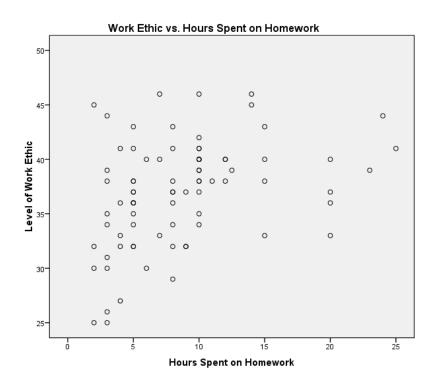


Figure 5. Scatter plot of hours spent on homework and level of work ethic