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The Effects of Absenteeism on Organizations: A Longitudinal Study Spanning Eight Years

Lee L. Hisey

University of Louisiana at Lafayette

Jude Bumgardner

Louisiana State University

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The Effects of Absenteeism on Organizations: A Longitudinal Study Spanning Eight Years

Lee L. Hisey, University of Louisiana at Lafayette
Jude Bumgardner, Louisiana State University

Abstract: *This study spanned eight years—from 2009 to 2017—and examined the effects of absenteeism on employers. The sample was randomly selected from the Louisiana Employer Support of the Guard and Reserve Employer database. Most of the employers indicated that absenteeism had no effect on their operations. However, results from one-sample t tests indicate that, as a result of absenteeism, there was a statistically significant increase in the following measures: customer complaints, level of rework, amount of time spent training, tardiness, number of team and employee efforts, work schedule alterations, and late deliveries to customers. One explanation for the discrepancy between the respondents perceived effect of absenteeism on their operations and the results of the t test is organizational resilience. Organizational resilience was manifested using the following strategies to moderate the effect of absenteeism on organizational performance: overtime, increased workload, full time replacement, temporary agency, and part-time employee.*

Keywords: *Absenteeism, Customer Satisfaction, Employee Behavior, Human Resource (HR), Organizational Output, Organizational Performance, Organizational Resilience*

INTRODUCTION

Literature on the Resource Based View (RBV) of the firm argues that employee absenteeism should have an adverse effect on an organization's resource mix (Barney, 1991; Penrose, 1959). In this study, the effects of absenteeism on organizational operations will be explored relative to the organization's output, customer satisfaction, employee behavior, and the strategies employed by the organization to cope with the effects of absenteeism. The results of this study will then be compared to the results of a 2009 study initiated by the researchers on the effects of deployment on employers of reserve and National Guard soldiers. Referred to henceforth as "soldiers".

REVIEW OF THE LITERATURE

The RBV of the organization which was proposed by Barney (1991) attempts to explain, in part, why organizations require resources to operate. Barney describes the resources that organizations use as having value based on certain qualifications, such that resources must be valuable, rare, inimitable, and non-substitutable. Further, Barney's premise for the RBV says that organizations that acquire the resources to satisfy his four requirements will have an advantage over those organizations that cannot acquire resources. In addition, costs accrued from recruiting and training replacements have an adverse effect on an organization's bottom line (Swart, 2010).

Not only are resources important to an organization's survival, but interaction between the resources is vital as well (Helfat & Peteraf, 2003; Penrose, 1959; Reed, Lubatkin, & Srinivasan, 2006; Teece, Pisano, & Shuen, 1997). These authors maintain that it is not enough to acquire resources; the organization must also utilize the resources effectively and efficiently to maximize the firm's output.

Organizations go to great lengths to acquire human resources (HR) (Conner & Prahalad, 1996). The loss of an employee affects the relationships of employees in the organization. Therefore, not only are the skillsets that the employee brings to the organization inimitable, but the synergy among employees, the

interactions between employees and customers, and the interactions between the organization's capital and its employees are also inimitable (Becker, Huselid, Pickus, & Spratt, 1997; Penrose, 1959).

Effect of Absenteeism on Employee Behavior

Schein (1990), states that "Changes in the environment will produce stresses and strains inside the group, forcing new learning and adaptation." (p. 116). Absenteeism causes a change in the employee's work environment. Further, loss of a co-worker, loss of the employee's social network, unwanted job expansion, or increasing employee workload—due to absenteeism—can negatively affect employee behavior and may lead to a reduction in employee commitment, work performance, and an increase in absenteeism (Conway & Briner, 2012; Ford, Quinones, Segó, & Sorra, 1992; Kopelman, Brief, & Guzzo, 1990; Rhodes & Steers, 1990; Rosen, Levy, & Hall, 2006; Rouiller & Goldstein, 1993; Staufienbiel & König, 2010; Tracey, Tannenbaum, & Kavanagh, 1995). Thus, there is a positive relationship between employee behavior and organizational performance.

Effect of Absenteeism on Customer Satisfaction

Customers' views of the organization may be influenced by their interaction with the organization's employees. One negative effect of absenteeism may include a reduction in customer satisfaction (Anderson, Fornell, & Mazvancheryl, 2004; Gruca & Rego, 2005; Lapre & Tsikriktsis, 2006; Mittal, Anderson, Sayrak, & Tadikamalla, 2005; Rust & Chung, 2006). Studies have shown that a positive correlation exists between customer satisfaction and shareholder value as measured by an increase in shareholder equity resulting from capital appreciation (Anderson et al., Fornell, & Mazvancheryl, 2004; Mittal et al., Anderson, Sayrak, & Tadikamalla, 2005). Further, a reduction in customer satisfaction may have a negative effect on organizational output.

Effect of Absenteeism on Organization Output

Studies show that there is a neutral to negative correlation between absenteeism and output that requires further research to substantiate. Past research has found that using flexible employment arrangements (e.g., incorporating contract, temporary, or part time labor) was not a successful strategy for maintaining organizational output, efficiencies, and improved financial performance (Bhavani and Tendulkar, 2001; Houseman, 2001).

Perceived Effect of Deployment on Customer Satisfaction

Results from the authors' 2010 paper on deployment indicated that, according to most respondents, deployment did not affect customer satisfaction. These conclusions were not supported by most contemporary studies on absenteeism (Anderson, Fornell, & Mazvancheryl, 2004; Mittal, Anderson, Sayrak, & Tadikamalla, 2005; Rust & Chung, 2006), which found that absenteeism may result in a reduction in customer satisfaction.

Perceived Effect of Deployment on Employee Behavior

Results from the 2010 paper indicated that absences, negative employee behavior, and late arrivals for work remained unchanged during deployments. These findings were not corroborated by an earlier study by Rhodes & Steers, 1990.

In addition, the third, fourth, and fifth most used strategies to counter deployment according to respondents in the 2010 paper were full-time replacement, part-time replacement, and temporary replacement respectively. The contemporary studies cited throughout this paper on deployment indicated

that these replacement strategies should have moderated negative employee behavior; however, most respondents from the 2010 paper indicated that employee behavior remained unchanged.

Perceived Effect of Deployment on Organizational Output

The 2010 paper also revealed that, according to most respondents, organizational output measures remained unchanged throughout the deployment; these findings contrast with earlier research on absenteeism, which state that product delivery, work flow, work scheduling, and workload are all negatively affected by absenteeism (Bhavani & Tendulkar, 2001; Ford, Quinones, Seago, & Sorra, 1992; Rouiller & Goldstein, 1993; Tracey, Tannenbaum, & Kavanagh, 1995). However, the authors of the 2010 paper did find that deployment had a greater perceived effect on organizational output measures than either the customer satisfaction or the employee behavior measures.

THEORETICAL FOUNDATION FOR THE STUDY

Few studies have attempted to quantify the effects of removing a resource from the organization over time (Jaarsveld & Yanadori, 2011). The difficulty for such a study lays in the fact that removal of a resource from an organization results in a response by the organization which creates a reactive arrangement affecting the results of the study.

In 2009, the war against terror was at its zenith relative to the number of deployments of soldiers. The establishment of the Uniformed Services Employment and Reemployment Rights Act of 1994 (USERRA) restricted an employer's ability to adapt to the absence of an employee. Due to the spontaneous nature of deployment, many employers were unprepared for the absence of employees called to active duty. These restrictions created a near-perfect environment in which to study the effects of resource-loss on an organization, such that the organization's responses and its ability to prepare in advance would be limited.

In 2009, the researchers initiated a study to quantify the effects of the loss of a HR on the organization, attempting to falsify the RBV of the organization. The findings from the research resulted in a paper published in 2010 which found that, for most respondents, there was no perceived significant effect on organizational performance due to deployment. However, the question remained, "Do employers perceive the effects of deployment on organizational performance as equivalent to absenteeism?"

PURPOSE

This paper aims to describe the effects of absenteeism on the organization and to test whether these effects are statistically different than the effects of deployment on the organization. The objectives are to:

Determine whether there is a statistically significant difference in the responses from the 2009 study on deployment and this study on absenteeism.

Describe employers on the average annual number of employees supervised, organization type, number of months to return operations to a pre-absenteeism level of performance, and the strategy incorporated by the organization to adapt to employee-absence.

3), 4), 5) Describe the effects of absenteeism on changes in customer satisfaction (Objective 3), employee behavior (Objective 4), and product or service output (Objective 5) by comparing pre-absenteeism to post-absenteeism levels of satisfaction, behavior, and output respectively and determine if these effects are statistically significant.

METHOD

Sample

The target population for the 2009 study included 1,109 employers of soldiers in Louisiana who pledged support for the Employer Support of the Guard and Reserve (ESGR, 2006). The primary sampling unit was the employer, and the secondary sampling unit was a respondent knowledgeable of the effect of an employee's absence on the organization's operations. The sample size was determined to be 108 using Cochran's sample size formula (1977). This number was then doubled to 216, based upon the researcher's expectation of a fifty-percent response rate. The selection process involved numbering each employer from the Louisiana ESGR database sequentially, and then randomly selecting employers using a random sequence generator (Random.org, 2008).

For the current study data gathering began in November 2016 and ended February 2017. The only changes made to the original instrument were a replacement of the words "activation and deployment" and "reservist and National Guard soldier" with the words "absenteeism" and "employee," respectively. Due to the predicted low response rate, the respondent population from the 2009 study was canvassed, rather than sampled randomly. The researchers based this prediction on the effects of the recession in the oil and gas industry and the ravages of several hurricanes, leading the researchers to believe that many of the respondents who participated in the 2009 study would no longer be in business.

Drawing from Black (2008), the researchers for the current study calculated the sample size using the population size and the number of usable responses (1109 and 117, respectively) from the 2009 study, a 3% error, five response choices, and a 95% confidence level.

$$n = \frac{(z^2)(p)(q)}{E^2}$$

$$n = \frac{(1.96)^2 [(117/1109) (1-(117/1109))]}{(5 \times 0.03)^2}$$

$n = 16.1$, which was rounded up to 17.

For this current study, 18 respondents submitted usable questionnaires.

Instrument Validation

The instrument for the 2009 study was validated using content experts on the effects of absenteeism in organizations utilizing the Rubio, Berg-Weger, Tebb, Lee, and Rauch (2003) content validity index (CVI) and factorial validity index (FVI). Content validation of the instrument followed the methodology utilized by Cormier (2006).

FVI and CVI values of greater than 0.8 were the criteria for determining if the instrument was a valid measure for this study (Robinson, Shaver, & Wrightsman, 1991). The CVI value indicated that there was an 81 percent agreement among the content experts on the content validity of the instrument. The FVI value indicated that there was a 91 percent agreement among the content experts on the correlation between the objectives of the study and the questions on the instrument. Based on these results, the researchers from the 2009 study concluded that the instrument possessed content validity. Finally, based on the results from the 2009 study, the researchers determined that validation of the 2017 instrument would be redundant.

Pilot Study

In 2009, the researchers conducted a pilot study with 66 randomly selected individuals. The data collection procedures for the pilot study were identical to the procedures used to collect data from the population. No changes were made to the instrument as a result of the pilot test. In addition, the 66 responses from the pilot test were included in the data for the 2009 study. The researchers for this current study decided that based on the results from the 2009 study, a pilot test for the 2017 instrument would also be redundant.

Data Collection

Prior to mailing the questionnaire in 2009, researchers telephoned potential respondents to ensure that they were familiar with the effects of absenteeism on organizational operations. Unlike the 2009 study, respondents were not contacted by phone prior to mailing the questionnaire for this current study. This was done to reduce the chances that a respondent remembered the 2009 study, thus affecting the response.

For the 2009 study, there were three mailings beginning in March. A total of 125 responses were received with 117 usable responses, yielding a response rate of 54.1% (117/216). The researchers used an independent sample *t* test, to compare early and late respondents, to determine if the respondents were representative of the population, as recommended by Gall, Gall, and Borg (2002). The dependent variables in these tests were the means from the three Likert Type measures (Customer Satisfaction, Employee Behavior, and Organization Output). There were no statistically significant differences between the early and late respondents; therefore, the data were combined for further analyses. For the current study, 18 usable responses were received with one mailing.

Instrument Reliability

The researchers measured internal consistency for the 2017 instrument on the original 18 Likert Type measures using Cronbach Alpha. The original measure was 0.63, which is in the questionable range (Matkar, 2012), and the acceptable range (Manerikar and Manerikar, 2015). By removing four variables, the Cronbach Alpha increased to .704, which is in the acceptable range (Matkar, 2012), and the good range (Manerikar and Manerikar, 2015). The Customer Satisfaction, Employee Behavior, and Output results reported in this paper utilize the remaining 14 Likert Type measures.

RESULTS

Objective One: Is There a Statistically Significant Difference Between the Responses of the 2009 Study and the Current Study?

Paired samples *t* tests were ran comparing the 18 respondents from the two studies. The codes and questions from the survey instrument for the “Likert Type” measures are found in Table 1 for the Customer Satisfaction measures, Table 2 for the Employee Behavior measures, and Table 3 for the Output measures.

The data in Table 4 describes the results of the paired samples *t* test. The significance levels indicate that the respondents could not perceive a statistically significant difference between the effects of deployment and absenteeism on the organization’s operations ($p \leq 0.05$). Based on these results, the researchers combined the results of the two studies.

TABLE 1: CUSTOMER SATISFACTION MEASURES INCLUDED IN THE PAIRED SAMPLES T TEST.

Code	Question on Instrument
Cust Sat 1	How much did the level of client/customer complaints change?
Cust Sat 2	How much did the level of client/customer compensation for delivery of an inferior service or product change?
Cust Sat 3	How much did the level of rework change due to mistakes?
Cust Sat 4	How much did the number of clients/customers served by your organization change?
Cust Sat 5	How much did the rate at which your organization gained, or lost clients/customers change?
Cust Sat 7	How much did the amount of time training employees on client/customer satisfaction issues change?

Cust Sat 6 removed by Cronbach Alpha

TABLE 2: EMPLOYEE BEHAVIOR MEASURES INCLUDED IN THE PAIRED SAMPLES T TEST.

Code	Question on Instrument
Emp Beh 1	How much did negative employee behavior change?
Emp Beh 4	How much did the number of late arrivals for work (tardiness) by employees change?
Emp Beh 5	How much did the number of employees who were satisfied with their work change?
Emp Beh 6	How much did the number of team efforts change?

Emp Beh 2 & 3 removed by Cronbach Alpha.

TABLE 3: ORGANIZATIONAL OUTPUT MEASURES INCLUDED IN THE PAIRED SAMPLES T TEST.

Code	Question on Instrument
Output 2	How much did the level of effort required to produce the organizations output change?
Output 3	How much did the number of work schedule alterations change?
Output 4	How much did the number of late deliveries of product or services change?
Output 5	How much did the amount of time spent training on employee performance change?

Output 1 removed by Cronbach Alpha

Respondents were asked to describe the number of months required to return their operations to a pre-absence level of performance. The mean number of months required to return to normal operations, according to the 2009 study on deployment, was 1.64; the mean for the current study on absenteeism was 2.07. Based on the number of months to return to normal operations there is no statistically significant difference between the 2009 study on deployment and the current study on absenteeism ($t = 0.581$, $p = 0.570$).

Objective Two: Describe Employers on Number of Employees, Organization Type, Months to Return to Normal Operations, and Strategy.

Table 5 describes the organizations by number of employees supervised. The average number of employees supervised was 262, and the median was 36. The range was from 0 to 5200 and the standard deviation is 708.24. For comparison data from the Bureau of Labor Statistics are included for 2016.

The data in Table 6 describes the organizational types represented by the respondents. The largest employer type was the service sector at 61%; professional, managerial, or related occupations comprised approximately 20% of the respondent organizations. For comparison, 2014 data from the Bureau of Labor Statistics are included in table 6.

Table 7 describes the organization by the number of months required to return to normal operations. Fifty-percent of the respondents indicated that absenteeism had little to no effect on their operations, and the organization returned to normal operations within two weeks or less. Seventy-five-percent returned to normal operations within one and one-half months, and all respondents reported a return to normal operations within 42 months.

TABLE 4: PAIRED SAMPLES T TESTS AND 2-TAILED SIGNIFICANCES ON THE CUSTOMER SATISFACTION (CUST SAT), EMPLOYEE BEHAVIOR (EMP. BEH), AND OUTPUT (OUTPUT) MEASURES.

Code	<i>t</i>	2-tailed Sig.
Cust Sat 1	-1.374	0.187
Cust Sat 2	-1.288	0.215
Cust Sat 3	-1.567	0.135
Cust Sat 4	0.000	1.000
Cust Sat 5	-0.566	0.579
Cust Sat 7	-1.567	0.135
Emp Beh 1	-0.697	0.495
Emp Beh 4	-1.719	0.104
Emp Beh 5	-1.317	0.205
Emp Beh 6	-0.524	0.607
Output 2	1.166	0.260
Output 3	-0.622	0.542
Output 4	-1.144	0.269
Output 5	-0.369	0.717

Table 8 breaks down mean number of months to return to normal operations by industry. On average the Transportation & Material Moving and the Sales & Office Administration industries returned to normal operations within one month. Farming, Forestry, & Fishing returned to normal operations in six months. The average for the remainder of the organizations was one to three months.

Table 9 lists the usage rates for the strategies employed to adapt to absenteeism. The respondent assigned usage rates to each strategy utilized to adapt to employee-absence. The usage rates range from 0 to 8, where 0 indicated the strategy was not used, 1 was the respondent's strategy of choice, and 8 was the strategy least used. The data in table 9 was then weighted, based on the total ranks (8) multiplied by the total number of responses (141), a product of 1,128. The number of respondents per usage rate was then divided by 1128 to calculate the weighting. For example, from Table 9, the frequency for overtime as the respondents first choice is 48, $(48/1,128) \times 100 = 4.255$, which is rounded to 4.3. Finally, the weighting is divided by how attractive the strategy was to the respondent to get a relative score. Therefore, $4.3 / 1 = (4.3)$, where the one in the denominator indicates that this strategy was the respondents first choice of strategies. If for example Overtime was used as the second most used strategy as 30 respondents indicated, then the relative would be $(30/1,128) \times 100 = 2.7 / 2 = 1.35$, rounded to (1.4). Thus, the

relative is a measure of how popular a strategy was amongst all the respondents considering the rate at which a strategy was used.

Based on the relatives, the most popular strategy is the use of overtime with a relative score of (4.3), second was increased work load as the first choice (3.0), third is a full-time replacement as the first choice (2.8), fourth is the use of overtime as the second most used strategy (1.4), fifth is the use of a temporary full-time replacement as the first choice (1.3), and finally part-time employment as the first choice and increased work load as the second choice were both sixth with a relative score of (1.2). The remaining relatives were below 1.0.

TABLE 5: NUMBER OF EMPLOYEES SUPERVISED FROM 2017 SURVEY AND 2016 BLS DATA

# Emp.	Range	<i>f</i>	Percentile	#Emp.	Percentile	Mean	Median	SD
Survey	Survey	Survey	Survey	BLS	BLS	Survey	Survey	Survey
≤ 10		34	25	≤49	28			
≤ 36		70	50	≤999	60			
≤ 134		105	75					
Total	0-5200	140	100	≥1000	100	262	36	708.24

TABLE 6: FREQUENCY AND PERCENTAGES OF ORGANIZATION TYPES AND 2014 BUREAU OF LABOR STATISTICS DATA.

Organization Type	<i>f</i>	%	BLS % (2014)
Service Sector	86	61.0	a54.6
Professional, Managers, or related occupations	28	19.9	b18.0
Construction, Extraction, & Maintenance	11	7.8	12.7
Transportation & Material Moving	10	7.1	3.1
Sales & Office Administration	4	2.8	c10.2
Farming, Forestry, & Fishing	2	1.4	1.4
Total	141	100.0	100.0

^a Residual after all other services have been accounted for

^b Includes professional, business, and financial activities

^c Retail trade only

TABLE 7: NUMBER OF MONTHS REQUIRED TO RETURN TO NORMAL OPERATIONS.

Months	Range	Frequency	Percentile	Mean	Median	SD
0 to 0.5		59	50			
≤1.5		92	75			
≤42		134	100			
Total	0 to 42	134	100	2.07	1	4.628

TABLE 8: AVERAGE TIME FOR ORGANIZATIONS TO RETURN TO NORMAL OPERATIONS.

Organizational Type	Mean Number of Months	<i>f</i>
Transportation & Material Moving	0.56	9
Sales & Office Administration	0.63	4
Construction, Extraction & Maintenance	1.64	11
Service Sector	2.11	79
Professional, Managerial, or Related Occupations	2.73	28
Farming, Forestry, & Fishing	6.0	1

Table 10 tabulates the maximum usage frequency for each strategy by the number of months required for the organization to return to normal operations. According to Table 10, when the strategy of overtime was employed as the first choice, absenteeism had no effect on the organizations operations (*f* 19). Overtime used as the first choice resulted in a return to normal operations within one month (*f* 10), hiring a full time replacement as the first choice resulted in normal operations within two months (*f* 5), and overtime as the first (*f* 4) and second (*f* 4) choices resulted in normal operations within three months. Usage frequencies for the remaining strategies was two. Frequencies not shown were one or not used.

Objective Three: Effects of Absenteeism on Customer Satisfaction.

The respondents reported changes in Customer Satisfaction on the six measures from Table 1 using a Likert Type scale that ranged from 1 to 5; 1=Substantial Decrease, 2=Some Decrease, 3=No Change, 4=Some Increase, and 5=Substantial Increase. The average percentages for the responses for Customer Satisfaction are presented in Table 11.

The results for the Customer Satisfaction responses in Table 12 indicate that absenteeism did not have a significant effect on customer satisfaction. The Grand Mean was 3.09, which was within one standard deviation (SD = 0.483) of “3 = No Change”.

TABLE 9: DISTRIBUTION OF STRATEGIES TO ADAPT TO THE ABSENCE OF AN EMPLOYEE.

Strategy	Usage rates for strategies <i>f</i> (relative score)									
	0	1	2	3	4	5	6	7	8	Total
Overtime	44	48(4.3)	30(1.4)	9	8	2	-	-	-	141
Increase Workload	60	34(3.0)	28(1.2)	8	5	5	1	-	-	141
Fulltime Replacement	82	32(2.8)	10	10	6	1	-	-	-	141
Temporary Agency	103	15(1.3)	10	4	2	1	2	3	1	141
Part Time Employment	89	13(1.2)	12	15	8	2	1	1	-	141
Reduce Output	110	7	7	9	5	-	1	1	1	141
Automate/Tech.	119	-	2	4	1	7	5	1	2	141
Contract labor	117	3	4	3	3	4	1	2	4	141
Total	724	152	103	62	38	22	11	8	8	1128

Note. A dash (-) indicates no response.

Objective Four: Effects of Absenteeism on Employee Behavior.

The respondents reported changes in Employee Behavior on the four measures from Table 2 using the same Likert Type scale as the Customer Satisfaction measures. The average percentages for Employee Behavior are presented in Table 11.

The results for the Employee Behavior responses in Table 12 indicate that absenteeism did not have a significant effect on employee behavior. The Grand Mean was 3.06, which was within one standard deviation (SD = 0.479) of “3 = No Change”.

Objective Five: Effects of Absenteeism on Changes in Product or Service Output.

The respondents reported changes in Organizational Output on the four measures from Table 3 using the same Likert Type scale as the Customer Satisfaction measures. The average percentages for the responses from the Output measures are presented in Table 11

The results for the Output responses in Table 12 indicate that absenteeism did not have a significant effect on organizational output. The Grand Mean was 3.33, which was within one standard deviation (SD = 0.582) of “3 = No Change”.

TABLE 10: STRATEGY USAGE RATE FREQUENCIES BY MONTHS TO RETURN TO NORMAL OPERATIONS.

Months to Return to Normal Operations	Overtime as 1st Choice	Overtime as 2nd Choice	Hire Fulltime Replacement as 1st Choice	Increase Employee Workload as 1st Choice	Increase Employee Workload as 2nd Choice
0	19	-	-	-	-
0.5	2	-	-	-	2
1	10	-	-	-	-
1.5	-	-	-	-	2
2	-	-	5	-	-
2.5	-	-	2	-	-
3	4	4	-	-	-
4	2	-	-	-	-
6	2	-	2	2	2
12	-	2	-	2	-

Usage rate frequencies are maximum values by months to return to normal operations.

A comparison of the means for the Customer Satisfaction, Employee Behavior, and Output measures was performed using a One Sample Student *t* test. Three (3) = “No Change” was used as the test value. The results of the one-sample *t* test are presented in Table 13. For every statistically significant measure, the *t* statistic is positive, indicating that respondents perceived the effect of absenteeism as increasing, the measure ($p \leq 0.05$).

CONCLUSIONS

Conclusion One

The researchers wished to determine if there is a statistically significant difference in the responses between the 2009 study on deployment and the 2017 study on absenteeism. The paired samples *t* statistic indicated that, on all 14 Likert Type measures, there were no statistically significant differences between how respondents perceived deployment and absenteeism.

TABLE 11: AVERAGE PERCENTAGES FOR CUSTOMER SATISFACTION, EMPLOYEE BEHAVIOR, AND OUTPUT RESPONSES.

Likert	Custsat	Empbeh	Output
Scale	Avg. %	Avg. %	Avg. %
1	0.5	0.2	0.4
2	5.4	8.0	2.0
3	80.8	78.6	65.6
4	11.5	12.2	28.3
5	1.8	1.1	3.8
Total	100	100	100

TABLE 12: DISTRIBUTION OF RESPONSES FOR THE THREE SCALES IN THE RESEARCH INSTRUMENT.

Measure	<i>N</i>	Grand Mean	SD
Customer Satisfaction	136-140	3.09	0.483
Employee Behavior	140	3.06	0.479
Output	138-140	3.33	0.582

Conclusion Two

Service organizations employed most respondents. The second largest number of respondents were employed by a management, professional, or related organization. These two organizational types comprised approximately 81% of the total number of respondents.

Notable differences between the 2017 survey and the BLS data from 2014 include: fewer respondents from the construction, extraction, and maintenance industries in the 2017 survey (7.8%), versus the 2014 BLS study (12.7%). This can be explained by the contraction in the oil and gas industry in Louisiana over the past three years.

Other differences between the 2017 survey and the 2014 BLS data are the sales and office administration numbers from the 2017 survey (2.8%), and the 2014 BLS data for retail sales (10.2%). This difference may be the result of two separate mechanisms. First, the effect of technology in reducing the number of office administration jobs thus reducing the number of respondents identifying as office administration

employees in the 2017 survey and leading to the elimination of this job category from the BLS listing sometime between 2009 and 2014. Secondly, an increase in the number of retail sales jobs nationally by 306,300 between 2004 and 2014 thus increasing the number of respondents identifying as retail sales employees in the BLS survey.

TABLE 13: ONE SAMPLE T TEST RESULTS FOR LIKERT TYPE MEASURES (TEST VALUE = 3 “NO CHANGE”).

Code	<i>t</i>	2-tailed Sig.
Cust Sat 1	2.522	.013
Cust Sat 3	3.402	.001
Cust Sat 7	5.208	.000
Emp Beh 4	2.137	.034
Emp Beh 6	2.540	.012
Output 2	6.649	.000
Output 3	9.310	.000
Output 4	3.828	.000
Output 5	6.308	.000

Finally, there is a discrepancy in the number of transportation and material moving jobs from the 2017 survey (7.1%), and the 2014 BLS data (3.1%). This discrepancy may be explained by the migration of oil and gas workers to the transportation sector of the economy.

The sample for the 2017 survey was taken predominately from smaller organizations; 50% of the respondents indicated that they supervised 36 employees or less, and 75% supervised 134 employees or less. Conversely, BLS data from 2016 indicates that 28% of employers in the U.S.A. employ 49 or fewer employees, and 60% employ 999 employees or less. For this reason, generalizing the results of this study to larger organizations may be problematic. Finally, the results from the 2017 survey indicated that there was no significant statistical difference in the time to recover from deployment (Mean=1.64 months) and the time to recover from absenteeism (Mean=2.07 months).

Respondents indicated that overtime was their primary strategy for dealing with absenteeism. Recent studies have found that prolonged use of overtime can lead to a reduction in worker productivity due to fatigue and a reduction in employee morale, and, in some cases, eventually lead to an increase in absenteeism (Bowling, Alarcon, Bragg, Hartman, 2015; Diestel & Schmidt, 2012; Kim & Phillips, 2014).

In addition, respondents indicated that a full-time replacement (recruitment) was their third most popular strategy for dealing with absenteeism which is consistent with previous studies (Ghebregiorgis & Karsten, 2007). The reader should note, however, that the Ghebregiorgis & Karsten study used absenteeism as the

criterion and recruitment as the predictor, whereas this study assigns recruitment (full-time replacement) as the antecedent and absenteeism as the precursor.

Conclusion Three

Findings from this study indicate that there is a statistically significant increase in the number of customer complaints, level of rework due to mistakes, and the amount of time spent training on client and customer satisfaction issues. Moreover, these findings are consistent with earlier studies on absenteeism. For example, Podsakoff, Whiting, Podsakoff, and Blume (2009) found that there is a negative correlation between employee behavior operationalized as organizational citizenship behaviors and absenteeism, and that absenteeism had a negative effect on customer satisfaction and profitability.

Conclusion Four

This study found a statistically significant increase in the employee behavior measures of tardiness and number of team efforts. Earlier findings support these results. Carraher and Buckley (2008) found that employee performance and employee behavior measured as intention to quit ($r = -.122, p < .049$), intention to search for another job ($r = -.168, p < .007$), and intention to be absent ($r = -.139, p < .027$) were all negatively correlated. Mirvis and Lawler (1977) found a negative correlation between employee satisfaction and absenteeism ($r = -.81, p = \leq .01$). In addition, Podsakoff, Whiting, Podsakoff, and Blume (2009) found that an employee's organizational citizenship behavior was negatively correlated with absenteeism. Finally, Tharenou (1993) also found that absenteeism was negatively correlated with job satisfaction, and that absenteeism explained approximately eight percent of the variance in job satisfaction. Conversely, Russo, Vecchione, and Borgogni (2013) found that employee behavior measured as affective commitment was unrelated to absenteeism.

Conclusion Five

Conclusions from this study are consistent with extant literature regarding the effects of absenteeism on organizational output. There was a statistically significant increase in the organizational output measures, level of effort required to produce and deliver goods and services, number of work schedule alterations, number of late deliveries, and time spent training on employee performance. Earlier studies corroborate this same negative correlation between absenteeism and productivity (Elorza, Aritzeta, Ayestaran, 2011; Ghebregiorgis & Karsten, 2007; Jaewhan & Philips 2014; Staufenbiel & Konig, 2010; Stumpf and Dawley, 1981). In addition, the Output measures were affected more than the Customer Satisfaction or Employee Behavior measures based on variations from the 3 = "No Change" measure in the Likert Type scale.

PRACTICAL RECOMMENDATIONS

Based on the conclusions of this study, employers should establish overtime policies during absentee events that consider the effects of fatigue on employee performance, which may lead to an increase in customer complaints. Two strategies to combat performance issues include the use of teams and the use of contractors when employee performance reaches marginal returns. Teamwork has a social component which draws employees together in a common goal and creates a climate of responsibility for team members that can be more motivational than corporate or organizational incentives. In addition, to prevent performance issues, employers should institute programs that cross-train employees to take over when an employee is absent.

Finally, the negative effect that absenteeism has on employee effort, work schedule alterations, and performance issues can be moderated with training interventions. Training should focus on minimizing

the effects of poor performance on the customer's perception of the organization and how that perception affects repeat business.

DISCUSSION

Most employers perceived that absenteeism, despite the amount of time for the organization to recover (approximately two months), had no effect on the Likert Type measures in the survey instrument. Yet there was a statistically significant increase in the number of customer complaints, rework, training, tardiness, team efforts, level of effort, work schedule alterations, and late deliveries. How could most respondents claim that absenteeism had "No Effect" on their operations based on the results from the "Likert Type" measures when the One Sample t tests indicated that there was a statistically significant increase in these measures?

One possible explanation for this anomaly might be organizational resilience (Wilson, 2016). The employer's perception is that the strategies team work, training, work schedule alterations, overtime, increased workload, and a full-time replacement will moderate the negative effect of absenteeism on the organizations operations. It may be that these strategies are robust enough to bring the employer back to normal operations within the two-month period. Thus, from the employer's perspective, the threat to the organization is immaterial; it's merely a question of which strategy to use. Moreover, since the strategies are a part of the employer's everyday arsenal of strategies, his response is almost reflexive to the threat.

These results seem to indicate that there is some degree of flexibility in the RBV and that the organization's resource acquisitions become a necessity outside of the organization's capacity for resiliency. However, inside the organization's capacity for resiliency, strategic intervention dictates the organization's response to absenteeism rather than resource acquisition.

Therefore, the perception of the employer is that absenteeism has no effect due to the mediating effect of the strategy on the organization's performance. However, absent the strategy absenteeism will moderate organizational performance and it is this perception that is manifested in the results of the One Sample t Test. Thus, future studies may include an expanded version of the RBV which includes the mediating effect of organizational resilience on organizational performance. This effect (resiliency) allows the organization not only to adapt, but to absorb the loss of the resource without the loss moderating organizational performance.

Organizational resilience may explain, in part, the recent trend in many organizations to revert to permanent part-time employees and contract labor. Past the point of resilience, organizations must acquire resources, thus increasing the trend toward automation, off-shoring, and mergers and acquisitions. Further, this trend may be partially driving the demand for cheap labor through increased immigration, — a factor in the drive for minimum wage standards, —and may also be suspect in the pay discrepancies between resources that are highly valued and thus, difficult to replace (the 1%) versus resources that are easily replaced through technology, automation, or off-shoring jobs (the 99%).

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