

**USING THE ETHNOSTATISTICS METHODOLOGY TO RECONCILE  
RHETORIC AND REALITY: AN EXAMINATION OF THE  
MANAGEMENT RELEASE OF ENRON'S YEAR END 2000 RESULTS**

**William L Smith\***  
**Carolyn Gardner**  
**David M Boje**

**Abstract**

*We analyzed the earnings release of the Enron Corporation for the year ended December 31, 2000. By applying the methodology of ethnostatistics we were able to gain insight into the environment of earnings releases, the underlying meanings ascribed within the content and the resulting limitations on those third party users who rely upon the information provided. Moreover, with this understanding, we were better able to contrast the rhetoric employed by management in light of the reality of a deteriorating company. Our contribution provides for a comprehensive application of ethnostatistics in sensemaking of organizational disclosures and further extends the utility of the ethnostatistics methodology beyond academia.*

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\* William L. Smith is Assistant Professor of Accounting, and David M. Boje is Professor of Management at the New Mexico State University; Carolyn Gardner is Assistant Professor of Management at the Radford University, VA.

## INTRODUCTION

Numerous misconceptions surround the financial disclosures provided by Enron. Claims of management deceit and accounting misrepresentations leading to investor and analyst confusion abound. On the morning of January 22, 2001, the Enron Corporation issued a press release to announce the full year operating results for the year ended December 31, 2000. The press release in bold capital letters was titled: "ENRON REPORTS RECURRING ANNUAL EARNINGS OF \$1.47 PER DILUTED SHARE IN 2000 AND FOURTH QUARTER EARNINGS OF \$0.41." Five pages of text and seven pages of financial data were contained in the press release. Shortly after the press release was made available, Enron management conducted a conference call via a live audio webcast to address the information just released.

Further, the press release provided strong statements regarding the operating performance of the previous year. This seemingly strong performance report resulted in a positive market response. Investors appeared to favorably accept management statements such as "a 32 percent increase in net income to \$1.3 billion" as over five million shares of Enron stock traded that day and closed at \$75.0625 per share representing a one day gain of 2.474 percent.

Many would perhaps argue that only in hindsight could the Enron deception be seen much less understood. Hindsight is offered as a temporal antithesis given efficient capital markets. Fama (1970) proposed the semi-strong form of the efficient market hypothesis whereby the price of a security is adjusted by the capital markets given all the information made available. In the case of Enron, the market was apparently unaware that it was being deceived given the positive capital markets response to the Enron press release. Did sophisticated analysts and investors comprehend the information contained in the press release or was the release itself a misleading disclosure orchestrated by management to obfuscate the real year end operating results?

We attempt to reconcile the management rhetoric from the operating performance reality by using ethnostatistics (Gephardt, 1988) to analyze this press release. In the next section, (2) Background, we introduce Gephardt's (1988) ethnostatistics methodology and the interrelated three levels of analysis to thus explain how Gephardt's method may also be used as a tool in analyzing the numbers in conjunction with management narrative in telling the story of organizational transactions. In section (3), Data, Method and Results, we apply an ethnostatistics methodology to the January 22, 2001 press release of Enron in which the fourth quarter and full year end 2000 operating results were announced as our data set. We further explain the levels of analysis from the detailed methodology set forth by Gephardt in our applications of the techniques to the press release data. This provides for a complete analysis of the press

release using all three levels and relevant areas of ethnostatistics. Finally, in section (4) Conclusion and Implications, we discuss our contribution to ethnostatistics theory in expanding this research methodology for sensemaking of a corporate spectacle. Further, we discuss the implications in utilizing this methodology to parse out management rhetoric from reality in organizational settings, financial disclosures, and the related stories organizations tell with numbers. Finally, we discuss the need for future research in utilizing ethnostatistics to corporate spectacles beyond Enron.

### BACKGROUND OF ETHNOSTATISTICS

In this section we present the ethnostatistics methodology as set forth by Gephart (1988). We also discuss the emerging trend and timeliness of using the ethnostatistics methodology in non-academic settings to analyze organizational stories told by management in both narrative and numerical format discourse. Finally, we present our application of ethnostatistics in this study. Given the rapid demise of Enron shortly after a seemingly strong annual operating performance press release, a methodology for sensemaking of this corporate spectacle is imperative.

Ethnostatistics is defined "as the study of the construction, interpretation, and display of statistics in quantitative social research" (Gephart, 1988, pg. 9). Statistics, as defined in Gephart's (1988) definition, "refers to almost any numerical summary that is the outcome of the application of rule-governed calculations. For example, ... the number of runs batted in during a baseball game are statistics in this meaning of the term" (pg. 10). Numerical presentations as a result of day-to-day activities of an organization can be analyzed using ethnostatistics. The three levels of ethnostatistics are tied to the construction, interpretation, display and discussion of the numbers presented. The first-level of ethnostatistics uses qualitative and ethnographic methods to study the naturally occurring activities, settings, and meanings of social scientists (and others) involved in producing statistics. Second-level ethnostatistics investigates the adequacy of basic technical and practical assumptions made in statistical analyses. And the third level of ethnostatistics looks at statistics (and table presentations) as rhetoric. Further, rhetoric leads to a concern with the textual aspects of statistics by analyzing two areas (1) the rhetoric of economics and (2) the rhetoric of quantitative justification. Ethnostatistics can thus be summarized as the qualitative study of how researchers (or practitioners) employ quantitative metrics to persuade.

While Gephart's *Ethnostatistics* was first introduced in 1988, we are now beginning to see a recent emergence of use of the ethnostatistics methodology to analyze statistics used by organizations to represent the transactions of their

activities. For example, ethnostatistics was the topic of both a symposium, *Telling Stories with Numbers* at the 2003 Meeting of The Academy of Management (Gardner & Gephart, 2003), and a recent call for *Organizational Research Methods*. In the area of analyzing the production and representation of corporate earnings *The Academy of Management Journal* recently published a research note in which the authors specifically research earnings management. Davidson, et al, (2004) cite Corvellec (1995) stating, "As measuring and reporting performance has become increasingly important in our society, ethnostatistics...may need to be included in management thought" (pg. 267). Davidson, et al (2004), acknowledge their study is related to ethnostatistics and call for the use of ethnostatistics methodology in future research of financial reporting, specifically for earnings management.

In this paper we demonstrate how ethnostatistics may be used to study and thereby better understand the financial disclosures provided by management. Using the Enron press release we examine the final year end financial reporting made by the now infamous Enron management team of Ken Lay, Jeff Skilling, Andrew Fastow and Richard Causey. The Enron case demonstrates how management discourse and carefully selected accounting data may be orchestrated to present a distorted picture of operating performance. Perhaps analysts and investors alike were too focused on earnings per share as the quintessential proxy for operating performance. Just as a researcher may become excited when the data yields a correlation of  $r > .80$ , so too may analysts and investors become excited with seemingly strong earnings per share results. It is no wonder that the press release headline was exclusively devoted to earnings per share.

The correlation coefficient is merely a numeric value representing the relationships among variables. In examining the findings of a study, researchers would need to carefully analyze the entire study, such as sample selection, methodology, etc., rather than accepting the findings as "good" merely because an  $r$  value was reported as a result of employing statistical methodology. The earnings per share figure is merely a numeric value representing an accounting computation of available earnings allocated to common stockholders. In analyzing the operating performance of a firm, analysts and investors need to carefully analyze the entire information content rather than a few selected numbers. Accordingly, the entire content of the available information should be considered in any analysis.

Our use of ethnostatistics in this study is a detailed look at one specific document (the January 2001 press release) presented by one firm (Enron). We therefore approach ethnostatistics by examining the entire press release containing both management narrative and reported financial numbers. Further, we demonstrate the potential utility of ethnostatistics methodology applied to a

practical setting by incorporating the three levels of ethnostatistics as interdependent, rather than independent in our analysis. For example, examining the Enron document at level one ethnostatistics, we consider the ascribed meanings of the financial numbers contained in the press release. Examining level three, statistics as rhetoric, we consider how the Enron management team must organize their presentation of these numbers in such a way as to persuade the public of their implied strong financial position. Therefore, the analysis of the presentation of numbers, level three, is dependent upon the meanings ascribed to the numbers, level one. In the next section of the paper, ethnostatistics framework, we apply the three levels of ethnostatistics to the Enron January 22, 2001 press release.

## **DATA, METHOD AND RESULTS**

In this section we first demonstrate how we apply the three levels of ethnostatistics to the Enron January 22, 2001 press release. Next we analyze the press release using the three levels of ethnostatistics and finally, we discuss our findings. Given the background of ethnostatistics as previously discussed, we will now present the three levels of ethnostatistics in which we analyze the Enron press release.

### **Data and application of the ethnostatistics framework**

#### **First level ethnostatistics**

First-level ethnostatistical studies use qualitative and ethnographic methods to study the naturally occurring activities, settings, and meanings of social scientists (and others) involved in producing statistics (Gephart, 1988, pg. 27). Actual observation of the creation of the Enron financial documents and the press release that followed would be impossible. For the purposes of the level of statistical analysis in publicly traded organizations where researchers do not have access to field data or informants, we must rely on documents made public to examine the culture surrounding the production of Enron's public statements. Accordingly, we will only use the content of the January 22, 2001 press release as our data set. By restricting the scope of our analysis we not only mitigate any potential hindsight bias, but also strengthen our contribution with respect to the potential utility ethnostatistics can provide begging the question, "Could the inherent problematic reality of the Enron press release been discernable by those readers had an ethnostatistical methodology been employed?"

We first consider naturally occurring activities regarding the release of prior year performance information disclosures by management. The release of

this information is a naturally occurring event in corporate America. Firms consistently release information in a textual discussion format supplemented by selected financial data to convey prior period operating results. In the case of Enron, there were five pages of text supplemented by seven pages of financial data.

Next, we examine the settings for the release of prior year performance information. The setting would include the reporting environment of corporate results of operations. In the post Regulation Fair Disclosure (Reg. FD) environment, firms must make information released available to everyone at the same time. Given this Securities and Exchange Commission (SEC) mandate, press releases for year end and quarterly operating performance results are instantaneously made available for all users to read. The capital markets in turn respond to these releases and quickly adjust the price of those firms' securities. Event studies have shown support for measuring the capital markets responses to earnings announcements (Bamber, 1987; Kim & Verrecchia, 1991; Morse, 1981). Enron disclosed the combined year end and fourth quarter 2000 operating results information release on the morning of January 22, 2001. Upon this information release, users were provided an orchestrated management discourse and selected supplemental financial data to thereby assess the operating performance of Enron.

The last element of level one ethnostatistics is meanings ascribed by others of the information released. In this case we assume others to consist of those users of financial information to include investors and analysts as well as creditors and other interested third party users. The meanings ascribed in producing the statistics would include the contextual discourse of reporting financial results. Whether presented in a textual discussion, a numerical data format, or a combination of both, meaning is ascribed to changes in sales, operating profits, net income, earnings per share (EPS), etc. The meanings users or readers of the financial data ascribe are very specific within this environment. For example, a year over year change in sales or net income may be used in assessing firm performance whether positive or negative.

In sum, the first-level of ethnostatistics provides a basis for assessing the meanings ascribed within the environment in which the naturally occurring activities exist. This foundation provides needed clarity for sensemaking of the reporting phenomena and further provides a structure for which the underlying assumptions and related limitations can be addressed in second-level ethnostatistics.

#### Second level ethnostatistics

Second-level ethnostatistical studies investigate the adequacy of basic technical and practical assumptions made in statistical analyses (Gephart, 1988,

pg. 29). Accordingly, we will now consider the adequacy of the assumptions to thereby assess any related limitations in the ascribed meanings illuminated in the first level analysis.

We begin with the naturally occurring activities of the earnings announcements provided by the firm management. The capital markets depend upon the information provided to it by management. According to Scott (1981, p. 89) "open systems are capable of self-maintenance on the basis of throughput of resources from the environment ... interaction with the environment is essential for open system functioning." Information is an essential link between the firm and the environment in which it operates. Management is the "gatekeeper" of the information and thus has perfect information but only selectively provides information content to the capital markets environment. The capital markets in turn recognize the existence of this information asymmetry. The FASB stated in Concept Number 1, paragraph 54 the following:

... the usefulness of financial information as an aid to investors, creditors, and others in forming expectations about a business enterprise may be enhanced by management's explanations of the information. Management knows more about the enterprise and its affairs than investors, creditors, and other "outsiders" ...

This information asymmetry is further supported as the premise for the semi-strong form of efficient market hypothesis set forth by Fama (1970) in which all publicly available information is fully reflected in the price of securities. Further, Fama (1970) asserted that when a sufficient number of investors fully exploit available information, the result is market efficiency. Scott (2003) noted that market efficiency does not guarantee that security prices accurately reflect underlying firm value but rather that prices are unbiased relative to publicly available information and will react quickly to new or revised information. The underlying assumption is that management will provide the necessary information to disclose the operating results of the firm for the preceding period thereby creating an inherent limitation. To presume that management will provide all the information of the firm, inclusive of inside and proprietary information, is contrary to the accepted semi-strong form of efficient market hypothesis. Accordingly, the asymmetric information management provides may contain potential bias.

In the case of Enron, the following quote from then chairman and CEO Ken Lay was strategically centered on page one as, "Our strong results reflect breakout performances in all of our operations". To further add to the biased information provided, the supplemental financial data was limited to selected income statement figures. In addition, no balance sheet data or statement of cash flow data were provided.

We next consider the limitations found within the setting by focusing on the time of day in which the press release was issued and the related time of day that the conference call for the press release was scheduled. The environment in which these disclosures are made available may seem uneventful at first blush. Firms release information to third party users who in turn evaluate the information disclosed and then make whatever decisions they deem appropriate. The shelf life of information, however, is extremely limited as the capital markets quickly respond to the information made available. In fact some event reactions can be measured almost immediately following the release of information. Dann, Mayers, and Raab (1977) found that the market price of a stock fully adjusts within fifteen minutes of the release of firm specific information. Mitchell and Netter (1989) found market reactions within ninety minutes of proposed tax legislation news. Moreover, firms often report news after the markets have closed. Sinclair and Young (1991) found support that firms released 'good' news reports earlier in the day than 'bad' news reports.

In addition, firms provide a conference call discussion for those interested after they have had some time to absorb the content within the earnings information release. In the case of Enron, the press release was made available the morning of January 22, 2001; however, on the bottom of the fourth page notice was provided that a conference call with Enron management regarding the press release was to be conducted at 10:00 AM EST that same day. As a result, there was little time made available to study and absorb the data prior to addressing any questions or concerns to management at the 10:00 AM conference call. Given this extremely narrow window of time, management imposed a time limitation in applying any semblance of a rigorous analysis.

Finally, we must consider the adequacy of basic technical and practical assumptions made by those analyzing the information contained within the press releases to better understand any inherent limitations that may exist. Consider the emphasis placed on net income and EPS. Net income can be manipulated by employing various accounting techniques. The term "earnings management" whereby firms employ various accounting techniques to smooth out earnings over multiple accounting periods has become increasingly popular (Dempsey, Hunt, and Schroeder, 1993; Grant, Depree, and Grant, 2000).

A focus on net income and related EPS as a proxy for firm performance to the exclusion of any balance sheet or cash flow data may lead third party users to make inappropriate decisions. Further, the financial data supplement was limited to "selected" income statement items rather than a complete income statement even though the format was presented as that of an income statement. For example, operating expenses were not provided but rather "net income excluding nonrecurring items" was given as a net amount. As a result, any financial analysis that required operating expense data would not be possible.



The assumption that all the necessary financial data is provided to make an appropriate analysis exposes the inherent limitations that exist. The first bullet point in the text of Enron's press release was, "a 25 percent increase in earnings per diluted share to \$1.47" followed by "a 32 percent increase in net income to \$1.3 billion". As we discuss in our results, this limited data obfuscated the reality of Enron's actual operating performance.

In sum, Gephart (1988) set forth second-level ethnostatistical studies to take the perspective of the users of the data and thus to discover and assess the limitations that may exist. Applying second level ethnostatistics to earnings announcements, and more specifically to Enron, we are better able to assess the inherent limitations that exist within this reporting environment. By accepting the limited management disclosures in a narrow time horizon and further ascribing important meanings to this limited data, third party users may not make optimal decisions.

#### Third level ethnostatistics

We will now apply the third level of ethnostatistics – statistics as rhetoric. According to Gephart (1988), rhetoric leads to a concern with the textual aspects of statistics. In the case of this press release, we looked for rhetorical strategies which would be used to persuade a user of the information provided. What most applies to the Enron press release from third level ethnostatistics is contained in Gephart's area two, whereby we look at the appearance of objectivity; or, what Gephart found to be the words that made results "sound" scientific. Enron orchestrated the selective numbers to sound objective or, perhaps to fit within the standard language for a strong operating performance. For rhetoric in level 3 we focus on (1) language and systematic organization that persuades; and, (2) what elements of the financial data Enron chose to include or exclude from this press release as an important part of the orchestrated presentation to persuade analysts and investors. We will next discuss the content of the Enron earnings announcement within the contextual framework of ethnostatistics.

#### Results

The management of Enron took full advantage of the fortuitous opportunity the year end operating results announcement provided. We will now consider the persuasive rhetoric contained in the earnings announcement against the reality of Enron's financial condition utilizing the three levels of ethnostatistics within the naturally occurring activities, settings, and meanings set forth by Gephart.

### Naturally Occurring Activities

First-level ethnostatistics considers the earnings announcement event whereby management provides textual and financial data to disclose the operational performance of the firm for the prior period. Second-level ethnostatistics considers the content of the earnings announcement disclosure to discover and assess any potential limitations on the information made available by management. Third-level ethnostatistics considers the rhetoric of the disclosures to facilitate management to persuade the third party users and thereby influence the investment decisions they will make as a result. By integrating the three levels into the earnings announcement activity the influence management exerted becomes illuminated given the limited data they provided.

Management crafted the earnings disclosures by providing carefully selected text and financial data supplements. Providing some information while simultaneously omitting significant other information, in turn, provides for limitations on any analysis by those third party users of the earnings announcement. The text of the press release shows four bullet points with respect to prior year operations. Next, quotes from the CEO regarding the year-end financial results (i.e. the "performance story"), claimed "strong results reflect *breakout performances* in all of our operations," (emphasis added). And after two brief statements about the fourth quarter, a full year performance summary was provided.

The text was further broken down into (a) wholesale services, (b) retail energy services, (c) transportation and distribution, (d) broadband, and (e) corporate and other. Fragmented statements of various dollar and/or percentage increases were included along with "net" income or loss amounts. The attached financial data consisted of seven pages of "financial tables" that gave the appearance of financial statements. Table 1 was an "earnings summary" where revenues and not expenses were listed for each of the five categories. Detailed data for non-recurring items was provided followed by diluted, not basic, EPS. In addition, various other selected "business highlights" are included; however, there are no cash flow or balance sheet data provided. Further, the net revenues, interest, dividends, income taxes and basic EPS is found in a different formatted supplemental table. Only here does can the total \$1.22 per share of basic EPS be found, which is far less than the "recurring annual earnings of \$1.47 per diluted share" that was incorporated into the headline of the press release. Given the limited financial data management provided, any rigorous financial analysis would be very difficult.

The rhetoric of management thus begins at the inception by the control they have in limiting the data provided in the earnings announcement event. We next consider the setting of the earnings announcement.

## Settings

In the first-level ethnostatistics the setting for earnings releases would center on the environment in which investors, analysts, and others await these disclosures to then make appropriate assessments. Second-level ethnostatistics will discover and assess any limitations on the users. As previously discussed, the SEC mandated in Reg FD that all information is required to be made available to all users at the same time; however, the timing of the announcements can place limitations on the users. Third-level ethnostatistics considers the rhetoric management employs to influence the users. In this case, the posted headline announcing the year end results initiated the rhetoric with which management began to influence investors, analysts and all other users of the disclosed information.

Within the environment of earnings announcements the headline, which is essentially the sound bite of the announcement, is extremely important. Enron chose to include the words "recurring annual earnings" as part of the earnings announcement headline. Further, the entire headline was all bolded and capitalized. This rhetoric not only conveyed annual earnings but stability and consistency were implied by using the term "recurring". After setting this tone, the statement, "FOR IMMEDIATE RELEASE" followed the headline to add urgency to this important information which management had placed for third party readers to see. In addition to overt influence employed by management, the underlying urgency conveyed to the capital markets was further compounded by management in limiting the amount of available time to analyze the content of the disclosure.

Second-level ethnostatistics assesses limitations in the settings. In this case, the conference call was scheduled the same morning of the earnings announcement release. Conference calls are a part of the environment of financial reporting. Management, however, not only controls the timing of the announcement, but also the timing of the related conference call. By releasing the announcement and then scheduling an immediate conference call to address the content, management limited the ability to carefully read and fully consider the content of the earnings announcement it released. This limitation could affect the utility of any subsequent investment decision; and is perhaps why shares of Enron stock traded appreciably higher the day the earnings announcement was released.

In sum, a careful examination of the environmental setting of the earnings announcement reveals a carefully orchestrated event that is controlled by management. As a result, those users of the information are at a disadvantage and, accordingly, more susceptible to the rhetoric and influence of management. We finally consider the meanings ascribed using an ethnostatistical analysis.

### Meanings

First-level ethnostatistics acknowledges the meanings ascribed within the content of disclosures. In the case of Enron, discourses with respect to earnings and changes in net income are assumed to have meaning in interpreting the content provided by management. Second-level ethnostatistics assesses the limitations on the investors, analysts, and all other third party users on those ascribed meanings. Given then the selective content provided by management, third-level ethnostatistics provides a compelling look at the persuasive rhetoric employed by the management of Enron.

Management engaged in the use of rhetoric to achieve the result they wanted. That is, investors were to conclude from the press release that the company was strong financially and a leader in its various business sectors, with the exception of the broadband sector. In an attempt to mislead users regarding its earnings, net income, and levels of achievement in this reporting period, the data contained in the press release were presented to make Enron appear strong. The press release should not have deceived sophisticated investors and professional financial analysts using the data provided by management. After all, the assumed purpose of earnings announcements is informative rather than deceptive. By not having all the financial data, there is an increased reliance upon the management discourse.

As we mentioned previously, the format in which the financial data was presented also confusing. The dividends, income tax and interest expense, as well as the basic EPS figures were listed in Table 2 "Results by Segment" and there were only net results provided. No operating expense detail was provided to better assess the gross margins and operating income results. Operating expenses and depreciation found in Table 3; were given only for the transportation services. The transportation services sector was a miniscule portion of Enron's business relative to the wholesale and retail energy services where operating expense disclosures should have been provided.

Analysts and astute investors perhaps should have seen that while the rhetoric boasted of a 25% increase in diluted EPS of \$1.47 the reality was miniscule diluted EPS of \$1.12 up from \$1.10 in 1999, which is a less than 2% increase rather than the stated increase of 25%. Further, management obfuscated the effect of the Azurix charge off as simply some non-recurring event to be "swept under the rug".

The text references a 32% increase in NET INCOME. The rhetoric of bending the accepted meaning of "NET" in NET INCOME is interesting. The reality was an increase in Net Income of 9.6% from the prior year; however, of even more interest was the glossing over of the year over year increase in revenues of 151.27%. The net income change pales in comparison to the one

year increase in revenues. Perhaps too much focus on this would clearly show problems of net income not keeping pace with net percentage gains in revenues. In addition, a simple net profits ratio provides insight into the reality of weakened operating results rather than the rhetoric of a stable company with recurring strong earnings set forth by management. The \$1.266B "net income" as a percentage of sales was only 1.256% whereas in the previous period it was 2.386% a decrease of nearly 50%.

To continue, while the rhetoric boasted of strong "full year" results, the reality yearly revenues was glossed over. The reality showed that fourth quarter revenues in 2000 exceeded the entire revenues booked in all of 1999. No discussion was provided regarding the fact that over 40% of the total yearly revenue was actually booked in the last quarter, which compared to the prior year total, is clearly disproportional.

The text provides a discourse of rhetoric regarding the 59% increase in marked energy volumes to 52 trillion BTUs. While such a large increase in volume may sound good, no related revenue and expense information was given. This theme can be seen throughout the textual discussion. Numbers of contracts and megawatts, and BTUs, and bandwidth DS-3 capacity, etc. are discussed but the related revenues, and more importantly costs, are glossed over. Clearly such rhetoric is intended to persuade readers of Enron's strong operations, yet, such increases were not verifiable nor subject to GAAP and thus investors and analysts can only assume that the related numbers (revenues and expenses) should also be strong.

In sum, management can obfuscate reality. In this case, we found management used rhetorical strategies to persuade the users earnings release that Enron's was in a strong financial position with breakout operating results for this reporting period. Enron's management accomplished the desired result by carefully selecting, presenting and narrating the results of their operating performance and then limiting the time the users had to analyze the limited data prior to the customary conference call. By the end of the trading day, January 22, 2001, Enron had realized an increased share price, leading the public to believe the firm was on track to continue as the giant success story they had investors believe.

## **CONCLUSION, CONTRIBUTIONS AND FUTURE RESEARCH**

We contribute to ethnostatistics theory by applying the three levels of the methodology, interdependently, to analyze numbers presented by an organization. Where ethnostatistics was previously limited to academia, we clearly demonstrate the potential utility of this methodology outside of an academic setting. Accordingly, we contribute to business practice by providing a

detailed example of how ethnostatistics methodology can be used for sensemaking of the Enron corporate spectacle and further, how this may perhaps serve to understand existing management earnings disclosures.

The use of ethnostatistics should not be confined to academic research and related statistical discourse. We have demonstrated the utility of this methodology in parsing the reality of operational performance from the management rhetoric contained in the earnings announcement of Enron prior to its demise. Thus using ethnostatistics, we were able to examine the rhetoric utilized by management to exert influence over the users of the earnings disclosure. Accordingly, we were better able to reconcile the rhetoric with the reality. In the case of Enron, the orchestrated rhetoric diverted attention from the impending reality of a weakened company that shortly thereafter collapsed on an epic scale.

In future research, ethnostatistics may perhaps be applied to various other forms of organizational reporting. We have shown how organizations decide to construct, interpret and present, as we have seen, is not unbiased, neutral or straightforward. Through the three levels of ethnostatistics, the stories organizations tell with numbers should continue to be analyzed. Of course, corporate spectacles, such as Enron and World Com, attract great interest from management scholars and business professionals; however, many organizations are financial risks. Ethnostatistics applied to lesser known companies under SEC investigation may be of great value to all stakeholders involved. Would ethnostatistics have helped investors during the dot com boom turned dot bust? Perhaps analyzing the financial releases of all organizations in one industry may help us understand each organization's financial or strategic position in relationship to the other. In addition to financial reports, ethnostatistics could be applied to all types performance reports of organizations, such as environmental audits, diversity audits, or wage studies.

Ethnostatistics makes an important contribution. It gets the field beyond the dichotomy of quantitative versus qualitative. It allows qualitative analysis of the rhetoric of the metrics. Ethnostatistics is no longer just about ethnographers trailing academic quantitative researchers, to find out how they do what they do. Now, ethnostatistics is returning to its ethnomethod roots: It is about finding out how all kinds of practitioners of the quantitative arts navigate in a very subjective and fuzzy world, forming and using numbers to make sense of organizations.

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