

9-1-2007

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Training Costs and Performance:
Do High Training Costs Lead to Higher Revenues?

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Accounting Research Project 692Q
Professor El-Gazzar
December 18, 2006

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ABSTRACT

The objective, or goal, of this research paper is to try and examine the relationship between training costs and corporate performance, which is measured in revenue and profits; this paper also looks at the equity of various corporations in an effort to fully examine corporate performance. The process of trying to get the best possible performance out of employees has always been a subject of much discussion within organizations and with scholarly authors. In exploring the topic, researchers have found it difficult to come up with a standard method of evaluating the monetary long and short-term value of training employees. Though there are many conflicting views on the subject, this paper tries to explore a common ground where all organizations, from all over the world, can consistently have reliable and valid data to see if their respective training costs should be increased, decreased, or stay the same at any given point in time.

The analysis done in this paper will look at ten organizations, which have been recognized, by the American Society of Training and Development, as having excellent implementation of various training strategies during sporadic years between 2001 and 2005, inclusively, and compares ratios to try and find a common trend with training excellence and overall company performance. The results of the paper show, however, that there is no reliable or valid way of measuring data that is cost effective to the organizations and can be used by many industry sectors. This paper will also emphasize the need to have comparative historical data so that organizations can easily assess which programs are making or wasting money.

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INTRODUCTION

The objective of this research paper is to try and examine the relationship between training costs and corporate performance, which is measured in revenue and profits; this paper also looks at the equity of various corporations in an effort to fully examine corporate performance. The topic of trying to find the value of training and development is not a new topic and has been thoroughly evaluated by various experts. One source of information is McFarlane (2006) who explained that Donald Kirkpatrick and James Kirkpatrick are experts in the field of training and development. McFarlane did a review of a book written by Kirkpatrick and Kirkpatrick titled Evaluating Training Programs: The Four Levels and commented that "training programs must be a constant and vibrant part of organizational development and settings in order to attain growth, effective transition, and achieve strategic goals" (p. 96). Essentially, this is the goal, on a theoretical level, that all programs want to follow, but this is easier said than done. McFarlane goes on to state the four levels of evaluating training as defined by Kirkpatrick and Kirkpatrick are reaction, learning, behavior, and results (p. 96). Though each step is strategically explained in this review, McFarlane fails to note that some terms used by Kirkpatrick and Kirkpatrick such as "organizational value" are vague and does not give the reader an overall idea of what is happening in the training programs that is causing the "value" (p. 97). What does "value" mean and how do we measure it? This question was dimly addressed in the article by McFarlane, but others have come up with a way to place a monetary unit amount to training programs in organizations.

Gail Johnson (2003), in her paper titled "Waiting for the Payoff", she briefly points out that it has "become mission-critical for training professionals to measure training's impact on the bottom line and prove its value to the organization" (p. 44).

Once more, there is a failure to clearly define how to get the bottom line and prove that training costs are an important and vital part of an organization. Bangert (2006) asserted that executives want to know how to reach their maximum return on investment or ROI, as it is commonly referred to, but that the task of cumulating data, analyzing it, and coming up with a conclusions, increases the cost to the organization and out weighs the benefits; however Bangert (2006) goes on to state that the costs are worthy because it adds "infrastructure" to the organizations (p. 49). One way to try and cut costs would be to use a sample of programs to evaluate some programs instead of evaluating the entire curriculum. Burkett (2005) suggests using sample data as a means of getting an appropriate return on investments for particular programs (p. 99). Not only would this save time, but it will also save a great deal of money to the organization. But again, we want to determine how to specifically "evaluate" these programs.

Though there will always be conflicting views on just about anything in life, we must be able to look at facts and statements and determine if we agree/disagree with the statements or if we believe them to fact/fiction. Whichever position is chosen, it is important to look at things critically to find their sometimes, hiding value. For the purposes of this paper, we want to see what the experts have to say and what other scholars believe to be valuable in training and development. The above gives us an idea of what people think, but, as one can tell, they fall short of giving us a clear and definitive answer on how to measure training in terms of revenue for the organizations paying for trainings.

LITERATURE REVIEW:

According to a periodical titled Education and Training (1998), "US corporations spend a staggering \$30 billion on training... [there is an] estimated waste of \$27 billion as only 10 percent of the \$30 billion investment is apparently transferred back to the workplace in the form of improved skills and knowledge" (p. 168). Although this statistic is almost 10 years old and, considering that it is almost a sure thing that training costs have risen, the article's author, who is unknown, does not detail why this occurred in 1998. An explanation about return on investments was given, but again, there are no accounting methods or calculations used. However one can infer that tracking costs and benefits of training was not as easy or plausible in 1998 as it is in 2006.

Due to the lack of information regarding monetary valuation of training costs, one must wonder if the value of training is created by the staff getting trained and that perhaps the employees add value to their organizations in intangible ways (i.e. ways that be measured qualitatively and quantitatively). Maybe, the real value of training could be the motivation of each employee. This topic is explored by Erbacher, D'Netto and España (2006) where they studied the success of expatriates in China and determined that success was based more on the individual's personal drive, than on the organization's bottom line as a whole; organizations do benefit from this, but exact measures were not discussed (p. 183). Liang and Hsieh (2006) suggest that development, in the commercial banking sector, can be measured by the FSD or the Fuzzy Synthetic Decision, which is set to calculate " the relative importance for each dimension of the mean factor [that affect]...efficiency, leadership, business culture talents and strategy (p. 729). Even small hotels in Africa are being examined for performance in measurable and immeasurable customs; this investigation was conducted by Sharma and Upneja (2005) and discusses an assortment of manners of

measuring performance through use of various evaluations. It would be fantastic if there was a method or evaluation that could be used by all industries and could give us comparative results.

A person might argue that the method of using the return on investment (ROI) could be a great idea to implement across the board. Some may even ask why use the return on investment method. Training costs can be referred to as investments in and organization and might be included in the investment section of the statements of cash flows. Yet, there are large variations between ROIs across industries. For example, Burkett (2005) measure ROI for specific courses in a somewhat simple looking calculation: $ROI = (Total\ benefits - Programs\ Costs) \times 100$ (p.101). An organization might be able to easily calculate the cost of the programs, but how would they calculate benefits? Benefits, as defined by Burkett (2005), are calculated through the use of surveys. Surveys by participants is often a good, but not reliable, source because all participants assess value differently and it could depend on whether the participants are happy, sad, sick or upset when they take the surveys and may not answer truthfully.. There is no taking into account how a particular employee will respond to a questions and the questions, or rather their responses, might be taken into account when performance appraisals are conducted.

Kirkpatrick and Kirkpatrick (2003) have a set of principles that can be used to measure return on investment. These ten measures are:

Report the complete story - for a higher level of evaluation, data must be collected at lower levels, conserve important resources - when an evaluation is planned for a higher level, the previous level of evaluation needn't be comprehensive enhance credibility - when collecting and analyzing data, use only the most credible source, be

conservative - when analyzing data, base your calculations on the most conservative alternative, account for other factors - find at least one method to isolate the effects of the program to ensure that the evaluation results are not considered inaccurate or overstated; account for missing data - if no improvement data are available for a participant, assume that little or no improvement occurred, adjust estimates for error, omit the extremes - For example, if a list of numbers ranges from 30 to 70 but included one 100, that 100 could skew the results, capture annual benefits for short-term programs - use only the first year of benefits in your return on investment analysis of short-term program and finally, isolate all program costs in the ROI analysis, from the cost of the needs analysis to the cost of the evaluation (p. 4).

Although the above list is very expansive, it is only one way of looking at return on investment through the use of evaluations by the participants. As one might expect, this is a very time consuming task and there might be other more cost effective methods to be used..

Huling (2004) claims that "while it's hard to pinpoint the effect of specific training programs, those agencies whose cultures are learning-focused enjoy consistently above-average results"; Huling (2004) mentions several areas (productivity, quality and accuracy, applying new competencies, client feedback, and general observations) that are affected by good training (p. 142-143). The terms "good" and how they arrived at these conclusions are not very specific and cannot be tied to monetary values.

Profiting from Learning: Do Firms' Investments in Education and Training Pay Off? By Bassi, Ludwig, McMurrer and Van Buren is a very informative source regarding ROI. They explain that because the market relies heavily on accounting and financial information, that companies often do not consider if the training they are spending money on is actually effective to enhancing to the bottom line (p. 1).

Bassi et al., (2002) go on to explain two reasons why firms should invest in ways to calculate the exact value of training employees; these reasons are "business improve their market valuation when they invest more in training and investors could improve their performance if they has access to information about firm training expenditures when making investment decisions (p. 1)." By looking at these points we notice that not only will the exposure of training costs improve an organization's valuation by the market, but, more importantly, the lack of training expenditures being explicitly stated on financial statements negatively affects an investors' portfolio. Investors are the bloodline to public companies and should have access to this form of information in order to make better decisions..

Bassi et al., (2002), authors of this article, highlight the problem of formally asserting standardized training costs and that lack thereof. This was a constraint that many researchers face when trying find concrete evidence of such expenditure. It must be mentioned that some companies prominently display their training costs, while others "hide" it as part of their operating costs, investments, expenses or assets, and others just do not bother to come up with a cost that goes on the financial statements; to the latter, this would be one more expense that would have to be audited (this would only occur if the company had shareholders) and they would incur large auditing fees because of it. Perhaps it is best to go back to the idea of

performance appraisals, which was briefly mentioned before, and see if more information can be divulged.

Performance appraisals could also be a good way to measure return on investments; Courter (2006) states that "good performance appraisals for operations staffers are based on quantifiable data and conducted regularly" (p. 30), but the appraisals alone are not an objective way of looking at training benefits. Aik and Tway would argue that "workers learn better when they perceive that learning will help them perform tasks or deal with problems that they confront in their work" (p. 28). Although Courter and Aik and Tway offer tangible and intangible ways of looking at the evaluation of training respectively, it is still imperative that we look at measurable, consistent, reliable and valid sources to come up with an return on investment (ROI).

At times, performance appraisals are done to evaluate employees and determine compensation packages. Fink (2006) mentions that there can be a clash of cultures when pay for performance is used; even though the article focused on physicians, it was interesting to find that training and performance affects every job and industry. This could be a method to help determine costs of training; but there is the potential for a great deal of conflicts between employees that could lead to a decrease of morale and could affect the organizations bottom line.

BACKGROUND

In trying to find the most consistent information that could be used objectively, facts from the American Society of Training and Development (ASTD) will be heavily relied upon due to the consistency of the data gathered. The ASTD gives out awards to organizations that develop ways of training and developing staff which can stand to be staples for other industries as well.

This method proved to be most effective because information about each company was already compiled and an analysis needed to be conducted to find a correlation to between winning the BEST award and high profitability.

American Society of Training and Development – How are they useful to this paper?

The ASTD website provided a standard way of getting information regarding training and development. Based on a page on the ASTD titled “History” (2006), this society was founded in 1964 by 15 trained workers that were set up as a result of the United States’ need to replace workers that went to war in the 1940's. Although it started in Baton Rouge, Louisiana, it started to become national when the scope of the work they were doing increased. Because of this, the ASTD was officially formed in 1965 and their main goal has been to find ways in which people can be better workers (p. 1).

The ASTD website has published work by Sugrue and Rivera titled *The State of The Industry 2005* (2005). As part of their introduction, Sugrue and Rivera (2005) reported that "the learning function [of a company] is being run like any other business function with increased attention to operational efficiency, accountability, and connection to organizational strategy (p. 2)." Through expansive research, the

BEST organizations were found to help their organizations in meeting their respective training needs.

Below are some facts about the *State of The Industry* report mentioned above:

Table 1
Facts about the ASTD

The data focused on information found between 1999-2004 with the 2005 numbers shown as projected (p. 2)
The data compiled took into account ASTD benchmarking surveys, benchmarking forum and the BEST Awards program (p. 2).
This data was captured by looking at workplace learning and performance investments and practices in the US (p. 2).
The organizations mentioned in the report also sponsored it; so this information might not be as object as one would like (p. 2).
In 2005, it has been projected that the BEST awards are 64.18% all instructor lead, 38.34% all technology based and all online is 29.18% (p.14). <i>(Note that the sample population is 26; this is not the standard thirty units, but due to lack of resources it will be used.)</i>
The average expenditure of distribution of training costs for the BEST organizations decreased from 63.1% in 2004 to a projected 2005 62.4% (p. 8).
"The main reason given by BEST organizations for not outsourcing was a belief that learning is critical in organization culture development, and responsibility lies within to nurture learning" (p. 9).
"The average cost to provide on hour of learning content in BEST Organizations was \$1,092 (p. 11)".
"In the BEST organizations, the top three contextual areas were: Profession or Industry Specific; IT and Systems; and Managerial and Supervisory, it accounted for 38 percent of all content in training programs (p. 13)".

Note: From "*The State of The Industry 2005*," by Brenda Sugrue and Ray J. Rivera, 2005, *The American Society of Training and Development*, p. 2-14.

There was also an informative statement made by Sugrue and Rivera (2005) about the nature of the participants in the BEST awards. It emphasis that

All 2005 BEST organizations had systems in place to measure and report the activities and impact of the learning function across the enterprises. Data from learning management systems (LMS) were combined with data collected from business units and presented as scorecards or dashboards, which focused on investment and

operational aspects of the learning function. Some BEST organizations had created frameworks for gathering and presenting evidence of the value of learning, included metrics such as time to proficiency, competence levels, and retention. Many BEST organizations included agreed-upon indicators of success for particular learning initiatives such as increase flow of information across the organization, or speed of decision making. They also incorporated evidence of alignment of learning activity with business needs into their reports (p. 15).

Though this provides an immense amount of information about the statistics found on the BEST organization and how it was gathered, it is prudent to look at the some facts about the BEST companies. Sugrue and Rivera summarized the eight areas where the BEST organizations excelled in are:

- Investment: In general, they spent more, but many spend less than the norm
- Measurement: They were effective on monitoring the effectiveness or learning on the individual and corporate level and were able to see how changes in performance affects learning
- Efficiency: They maximize efficiency of the learning function by balancing centralized and decentralized aspects of the learning functions, internal process improvement, use of technology, and strategic outsourcing.
- Effective: Maximizing the effectiveness of learning by aligning learning activities with business needs and providing timely access to relevant learning opportunities.

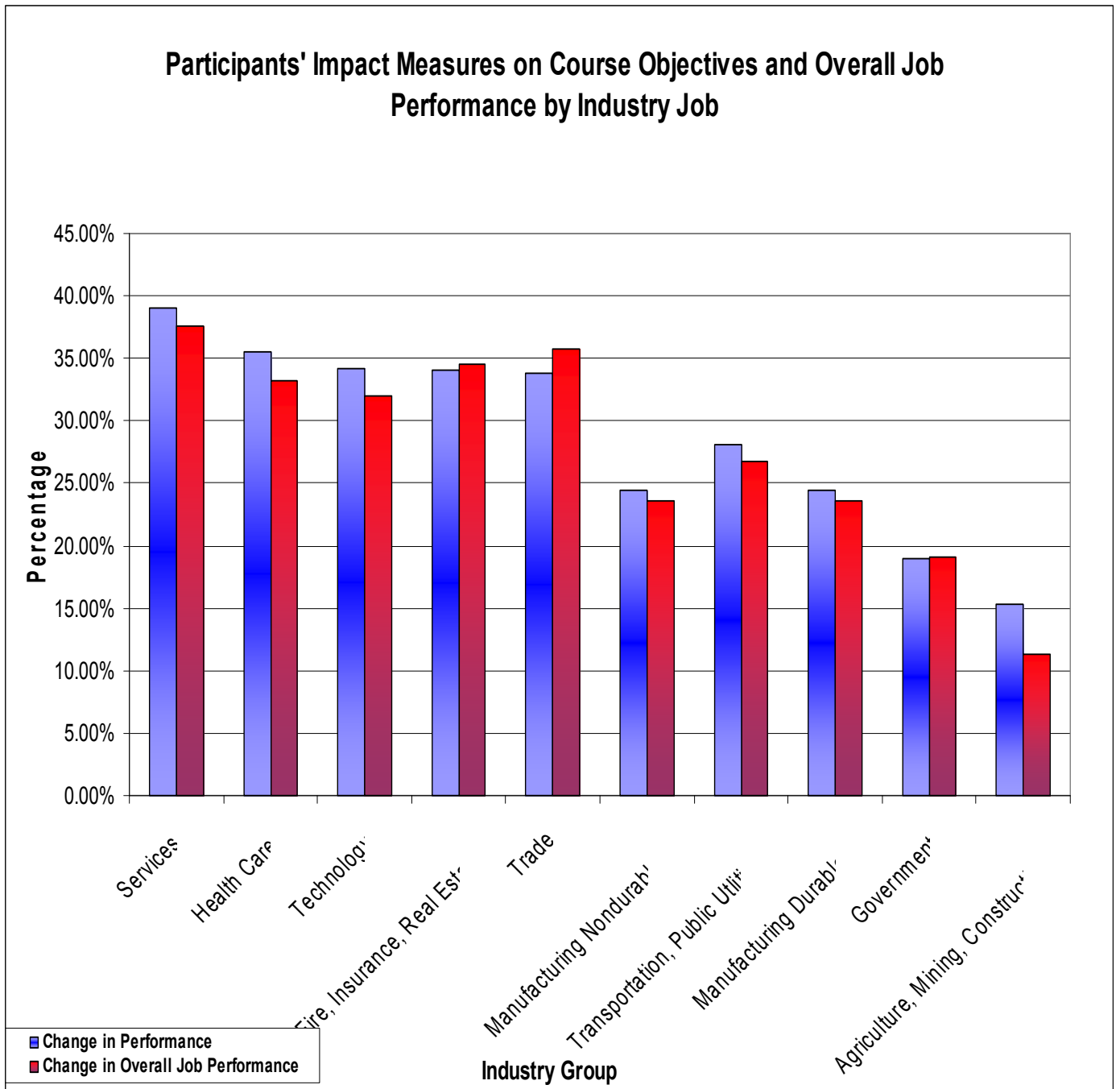
- Alignment: These organizations have a formal process to align short and long term business strategies with competency learning, and performance solution needs and priorities. They also map learning resources to competencies, individual development plans, jobs, and corporate goals
- Learning Opportunities: The BEST organizations provide a board range of internal and external formal and work-based learning opportunities, including knowledge sharing systems, coaching and conference attendance.
- C-Level Involvement: Most of the BEST have overt support from senior executives, and involve leaders as teachers.
- Non-Learning Solutions: The BEST devote a large portion of resources to non-learning performance improvement activities, particularly organizational development, process improvement, and talent management (p.16).

The awards were given every year and a list of the companies that won the awards during the years was compiled using each of the published reports from 2001-2005 inclusively ("Excellence in Workplace Learning and Performance: The ASTD Awards 2001-2005"). By looking a list of all the companies that won awards, we are able to see the wide breadth of industries the ASTD looked at to determine which organizations stood out above the rest. This information can be found in the appendix of the paper.

Another publication titled *The 2002 ASTD Learning Outcomes Report*" by Van Buren and Erksine (2002) was more specific to industry sectors. Van Buren and Erksine came up with a Measurement Kit to help set some standards on how to "predict the utility [use of] of learning" (p. 11). It was interesting to note that the

outcomes showed that mandatory courses (these courses have to be taken by the staff) were rated lower by participants than voluntary learning sessions. Mandatory training is not always well received because it takes the staff away from their prior commitments. Training that is done in the classroom as oppose to newer forms of education such as online or electronic learning, is much better received (p. 14). The participants in the services sector, for example, acknowledged that on a scale of 1-5, 5 being the highest, that they were 4.40 satisfied with the skills that they learned; these skills could be directly applied to their respective jobs received a score of 4.24 as stated by Van Buren and Erksine (2002 p. 17). The greatest amount of change in performance was felt most by the service industry participants as they experienced a 39% change; it also experienced the highest percentage of an increase in job performance by 37.6%. It is pretty safe to say that, as a result of this survey, people in the services industry are able to apply their learning in a positive manner than in other industries. This make sense because the professionals in the service industry because they do not produce widgets, they provide, at times, intangible services. To better display these changes across industries from the information stated in the report was formulated so that we can better visualize the data.

Table 2



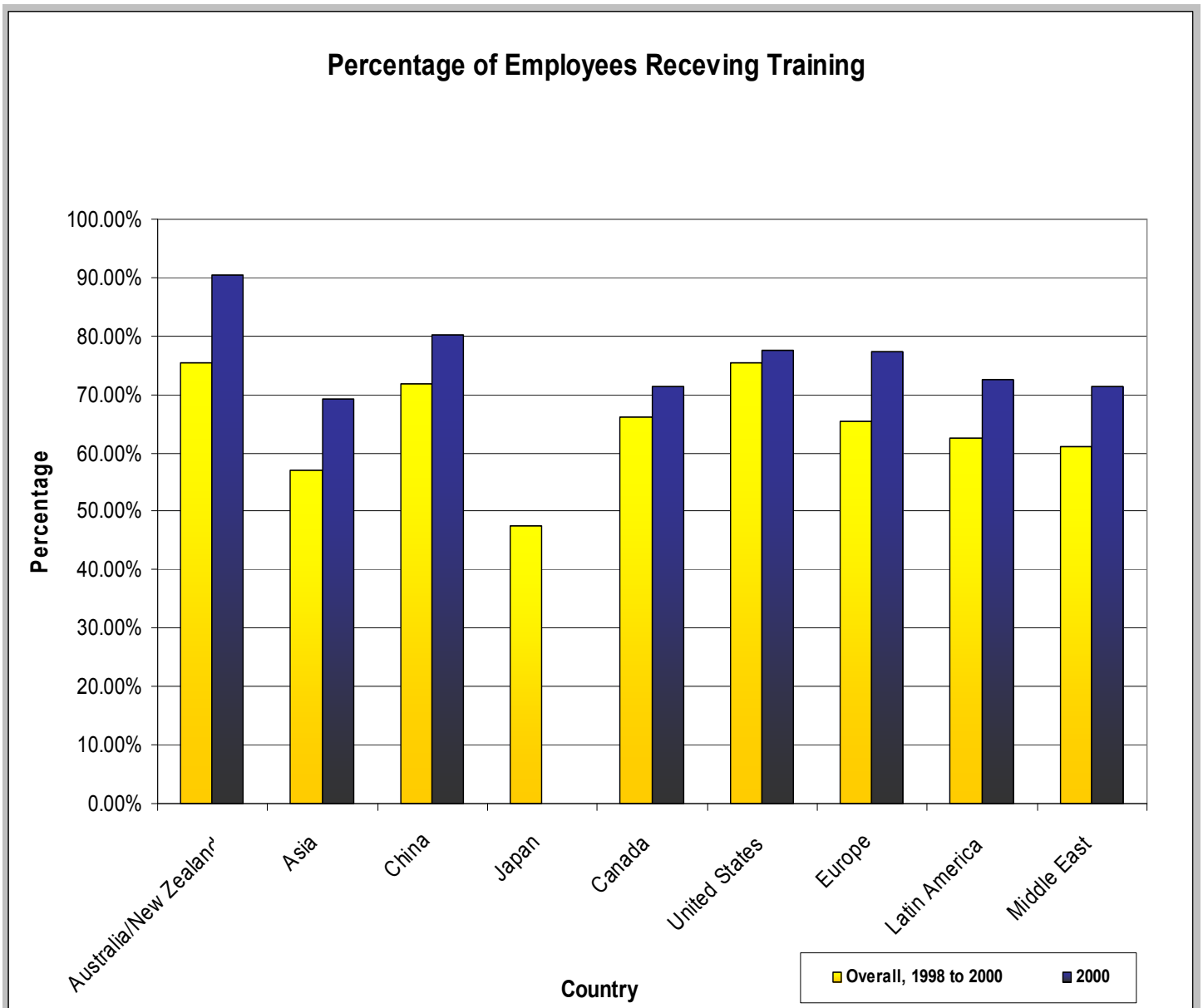
Note: From “*The 2002 ASTD Learning Outcomes Report*,” by Mark C Van Buren and William Erksine, 2002, *The American Society of Training and Development*, p. 18.

To add an extra dimension to the area of study, one more report that was published by the ASTD titled *International Comparisons* by Marquardt, King and Erksine (2002). This report focused on training costs from all over the world. The

Middle East, followed by Europe and then US were the leaders in "training expenditure per employee stated by Marquardt et al., (2002, p. 5)."

Perhaps one of the more interesting facts is the percentage of employees receiving training. This can be easier to understand in the form of a chart so that we may be able to see the comparisons.

Table 3



Note: From “*International Comparisons*,” by Michael J Marquardt, Stephen B. King and William Erksine, 2002, *The American Society of Training and Development*, p. 10.

We can clearly observe that in Australia/New Zealand, there is the highest percentage of employees who receive training in 2000. Please note that no data were available for 2000 in Japan. We can also see that the percentage of employees being trained has increased from 1998 to 2000 overall. We can infer that training is an important part of developing employees and that perhaps, the largest countries of the Asia Pacific have an edge on the competition by making sure that training is an important part of employee development.

As Marquardt et al., (2002) indicates, the Middle East ranks the highest when compared to other countries in terms of total training hours topping off at an astonishing 57 hours per employee in 2000 (p. 10). Based on the evidence presented by the authors it is easy to see that the US does not have the upper hand when it comes to training and developing their employees. Perhaps this shall have an effect on the outcomes of training costs in various organizations.

HYPOTHESIS

The topic of investigation deals with training costs incurred by organizations. We will examine data to determine if there is a correlation training costs and revenues. This paper will look at various organizations, from many industries, to come up with the most complete and significant organizational view to see if any correlation does exist. It would make logical sense that as staff members get trained, the staff will use the knowledge they have obtained to increase sales; this paper hopes to find concrete measurable evidence that will prove this hypothesis, and this notion will be tested by looking at financial statements and comparing what is found.

METHODOLOGY

Economy Analysis

Before we examine, the impact of the BEST awards on the various companies, we have to understand what was happening in the economy from 2000-2005. We cannot look at the economy during this time without mentioning the effects of the terrorism attacks that occurred on September 11, 2001. Previous to the attacks, the US economy was already in a recession due to the technology boom and accounting scandals and frauds (i.e. Enron, WorldCom, and Tyco etc...); after the attacks, the economies all over the world suffered. The consequences of 9/11 were felt most by the airline industry so we will note that Delta Airlines had to file for bankruptcy due to the increase cost of fuel and lack of consumer confidence (there were also some management issues that arose as well, but due to the nature of the paper, we will not be exploring that aspect of Delta in detail.)

In addition to this, we must be able to look at data correctly. We must acknowledge that previous costs of training have led to increases in subsequent years as well. Because of this, we must also notice that the effects of 9/11 weighed heavily on some industries, while others thrived regardless of the current or previous economic state; in addition to this, we should note that after 9/11 many companies were not able to rebound to pre-9/11 earnings. Companies that are mainly based or do regular business with the US also faced difficulties, but yet again, this was not endured by every company across every industry. This is important and relevant to this paper because when we look at the financial statements of companies, we must also look at the economic state and how it affects each company and industry.

Company Analysis

Presently, this paper will focus on companies that won the BEST awards. To recall, the BEST organizations are recognized by the ASTD for being innovators in the field of training and development. To try to get some comparative information, a compellation of ten companies where studied. These companies were narrowed down based on who won more than one award during the years examined and financial information, from Mergent Online, was sought to determine if there was indeed a trend of increase revenue or decrease costs during the years when the companies won the awards. One might ask why not simply compare training costs of each company over a number of years to determine if there is a trend. The main obstacle with this is that training costs are not readily available to the public so we cannot reply on them on a comparative basis. A list of the companies chosen can be seen below.

Companies
Toshiba
Wipro
Equity Residential
Lockheed Martin
Delta
MTR
International Business Machine
Hewlett-Packard
American Express
Dow Chemical

Please note that the BEST awards are given to public, private and governmental organizations, but since only publicly held companies need to file financial statements with the SEC, the search was narrowed down to companies with shareholders. Although it is standard to use a sample of at least thirty units, due to the lack of information available, only ten could be used for research purposes.

For each of these companies we will look at a several ratios to determine if revenue increased when the companies were given the BEST Award. The numbers in

red represent the years in which the organizations won the awards. As mentioned in the Literature Review of this paper, companies can have their respective training costs recorded as assets, expenses or a host of other areas, but only ratios Return on Asset, Profit Margin, and Debt to Equity were examined in this paper.

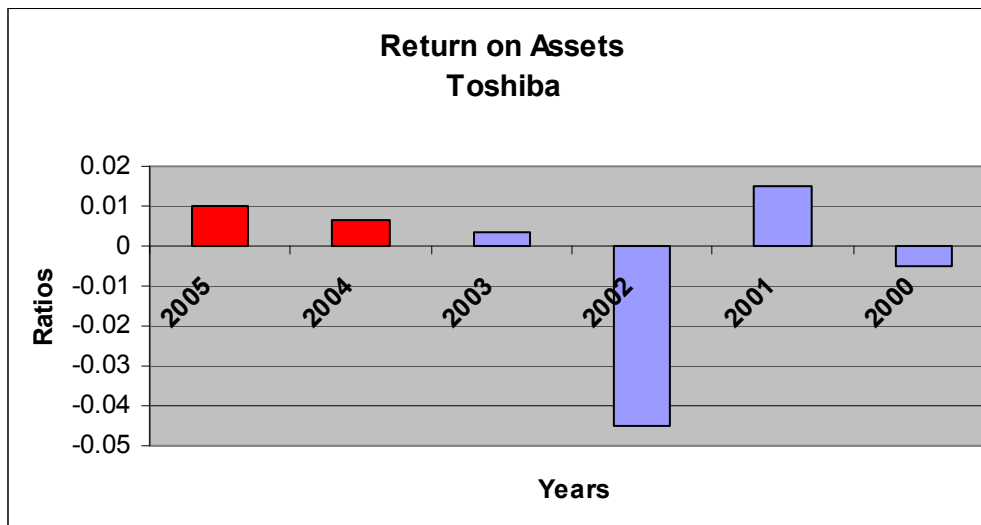
According to Investopedia.com (2006), a common investment for new and learning investors, it stated that the Return on Assets or ROA is "an indicator of how profitable a company is relative to its total assets" (p.1). Some people believe, especially in the service industry, that the staff are part of the companies assets so it would be relevant to look at this particular ratio. On the website it stated that an ROA "tells you what earnings were generated from invested capital (assets)" (p.1). Since the cost of training the staff is, at times a cost that is not disclosed, this ratio can give us an idea of well the company is doing financially. Essentially, "the higher the ROA number, the better [it is for the company], because the company is earning more money on less investment" (p. 1).

Profit Margin was used as well and Investopedia.com (2006) it states that "it measures how much out of every dollar of sales a company actually keeps in earnings" (p. 1). This would be a great tool to see if in fact the companies chosen made a great deal of money during the years in which they received the awards.

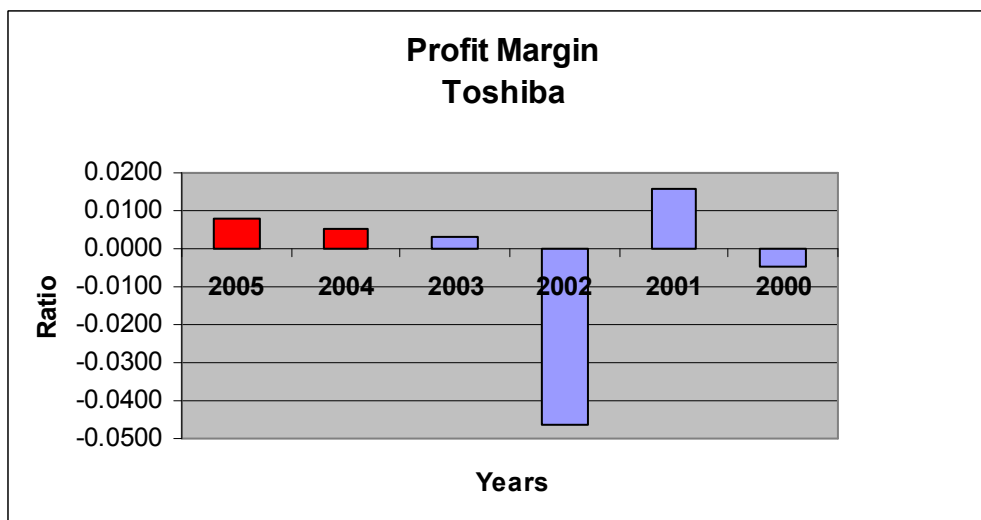
One last ratio that was studied was the debt to equity ratio; on the Investopedia.com (2006) it affirmed that this ratio "indicates what proportion of equity and debt the company is using to finance its assets; a high debt/equity ratio generally means a company has been aggressive in financing its growth with debt (and) this can result in volatile earning as a result of the additional interest expense." Looking at this ratio, we would like to investigate if the rate of growth in the company could be accounted for by looking at its debt relative to its shareholder's equity.

Mergent Online is a database that provides subscribers with comparative company financial statements. All of the financial sources for the companies examined will be available as part of the appendix. This database was used to find and compare the company data seen below:

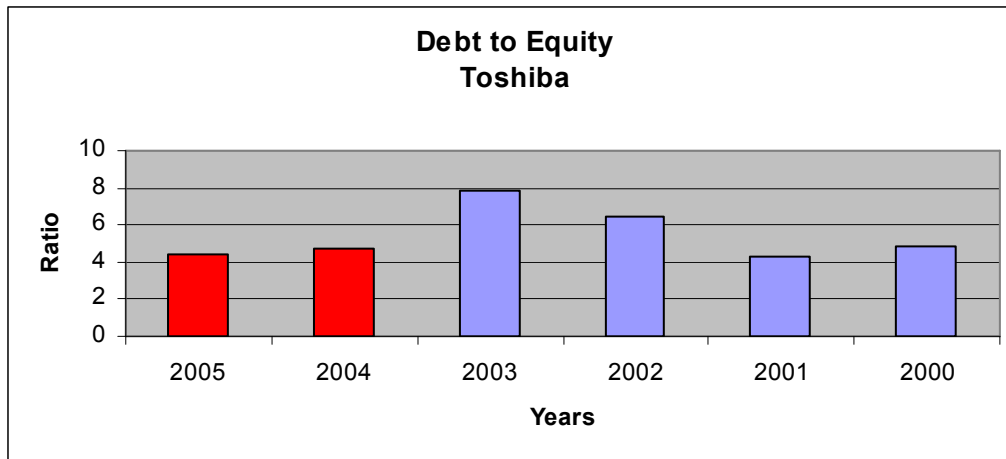
Toshiba: The Toshiba Company is in the business of producing electronics. It won the BEST awards in 2004 and 2005. Please see data below:



This signifies that the company is doing well as compared to previous years.



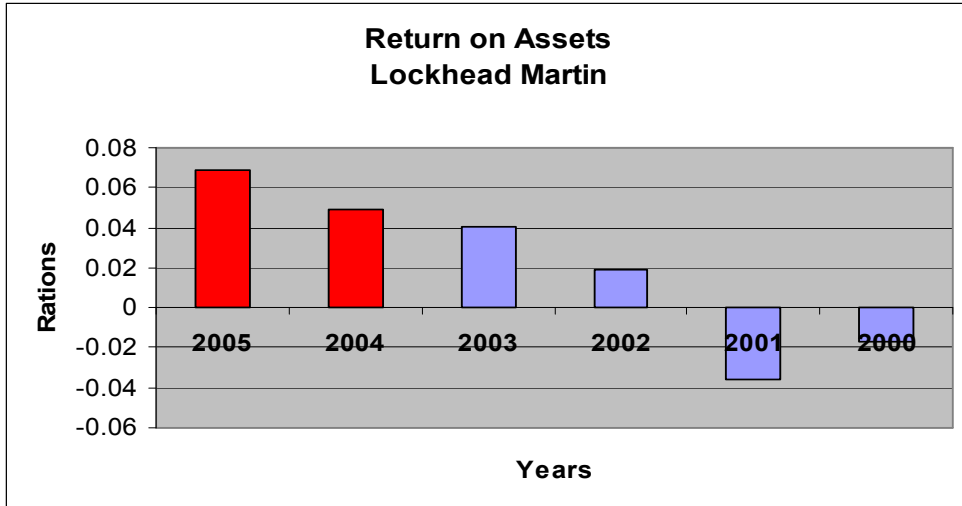
This suggests that Toshiba is doing well currently compared to previous years; especially when it won the BEST Awards.



With Debt to Equity, Toshiba has managed to reduce the amount of debt it uses to increase earning when it won the BEST Awards.

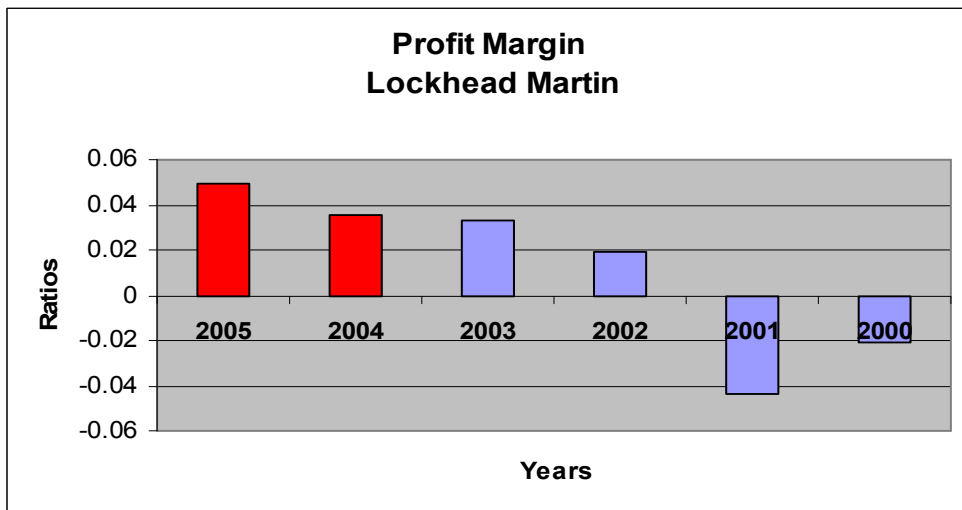
Lockheed Martin: According to the *Excellence in Workplace Learning and Performance: The ASTD Awards* periodical (2005), Lockheed Martin is a "defense contractor...that instituted some crucial leadership development changes (p. 46)."

Some key points were that it's "funding was increased more that \$5 million, which greatly increased the number of participants in lower-level leadership roles...human resources professionals were trained to serve as executives coaches and a world-class facility - the Center of Leadership Excellence - was constructed to house the programs as mentioned by *the Excellence in Workplace Learning and Performance: The ASTD Awards* magazine (2005 p. 46-47)." In 2004, the company also won. Let's look at there information:



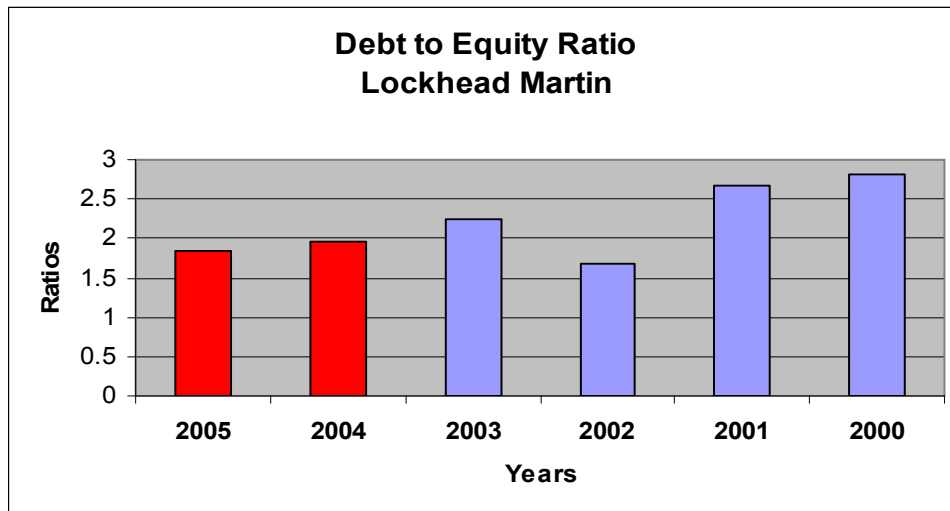
This shows that the company is doing well as compared to previous years.

There is a steady increase starting in 2002.



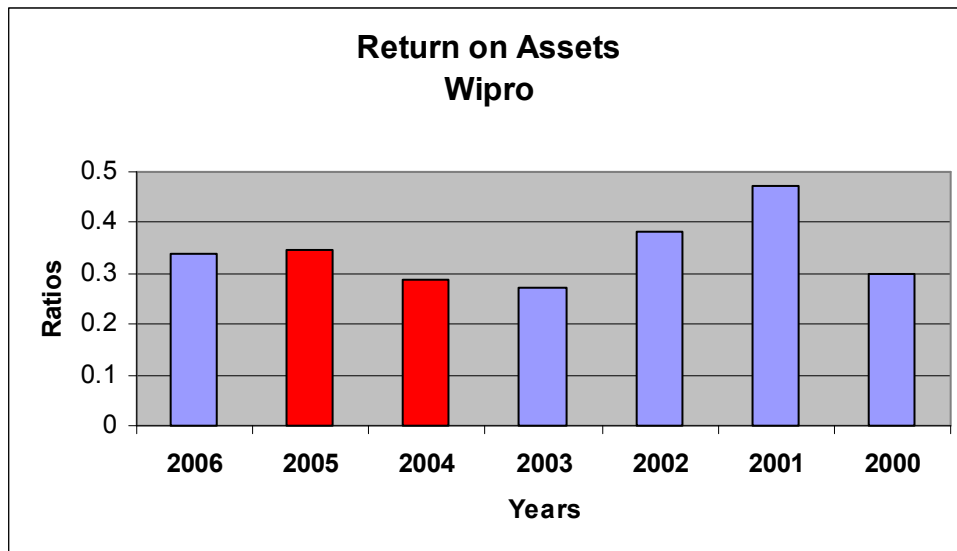
This specifies that the company is doing well as compared to previous years.

There is a steady increase starting in 2002. They did especially well during the years they won the awards.

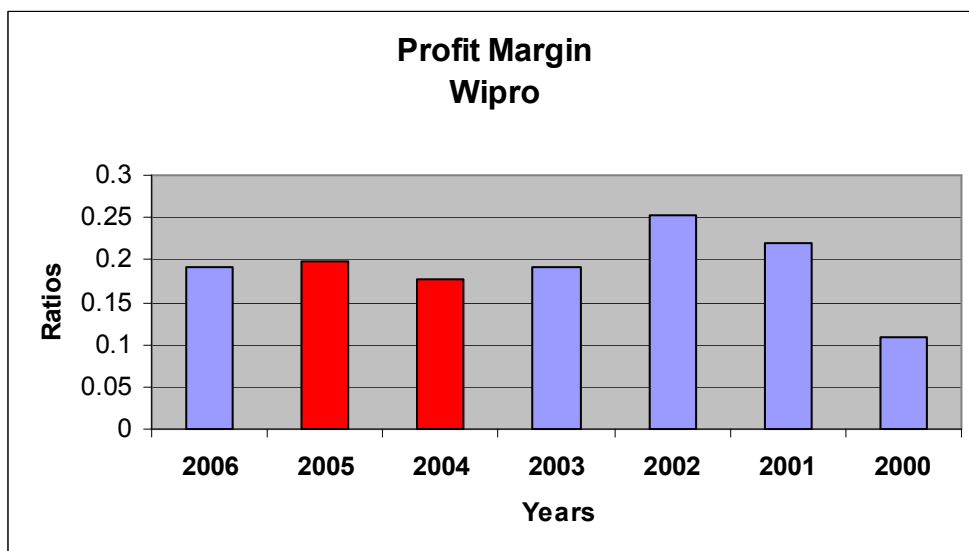


The amount of debt has been decreasing during 2005 which could explain the high profit margin.

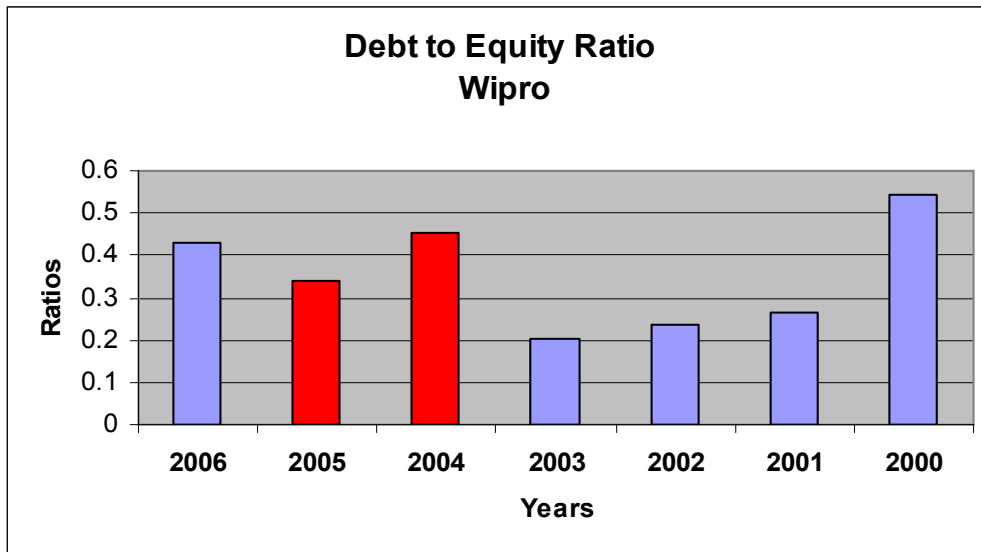
Wipro Technologies: According to the *Excellence in Workplace Learning and Performance: The ASTD Awards* periodical (2004), this company produces "consumer care products, lighting, engineering and health care [paraphernalia]" (p. 43). In reference to the article in the periodical, the Chairman of the company stated that they do not have a way of measuring ROI because they just ask themselves if "they are differentiating themselves from a customer-acquisition point of view?" (p. 57). In *Excellence in Workplace Learning and Performance: The ASTD Awards* periodical (2004), Wipro decided to use some e-learning solutions to help with their forty percent annual employee growth rate (p. 65). This organization was a great company to analysis because they have a fiscal year end during the middle of the year, so it will be possible to examine how winning the award for 2004 and 2005 affected their performance in 2006. Their ratios are as follows:



There was a sign of growth from 2004 through 2005, which could be a result of increased learning capabilities, but it has since leveled off in 2006.

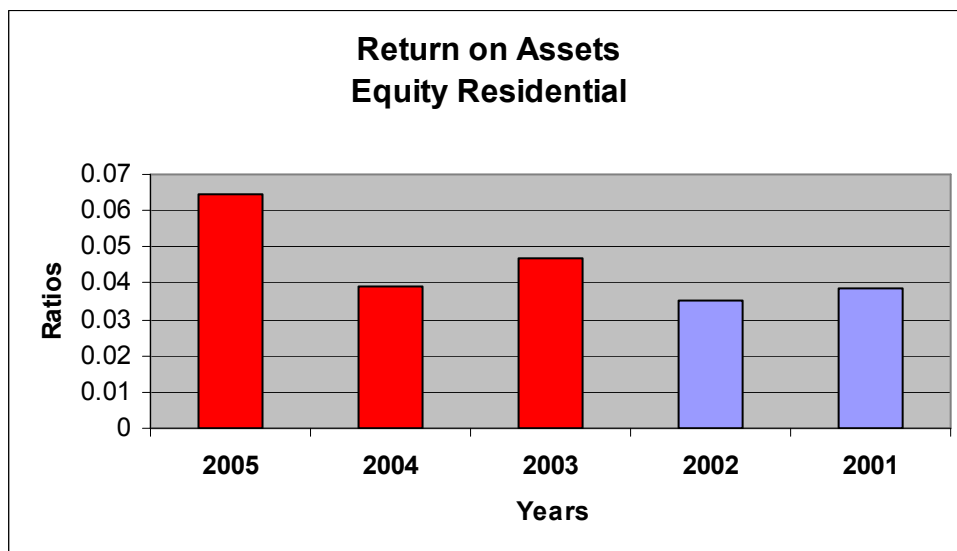


As compared to the last two companies, profit margins have decreased in 2006. However growth was noted from 2004 to 2005.

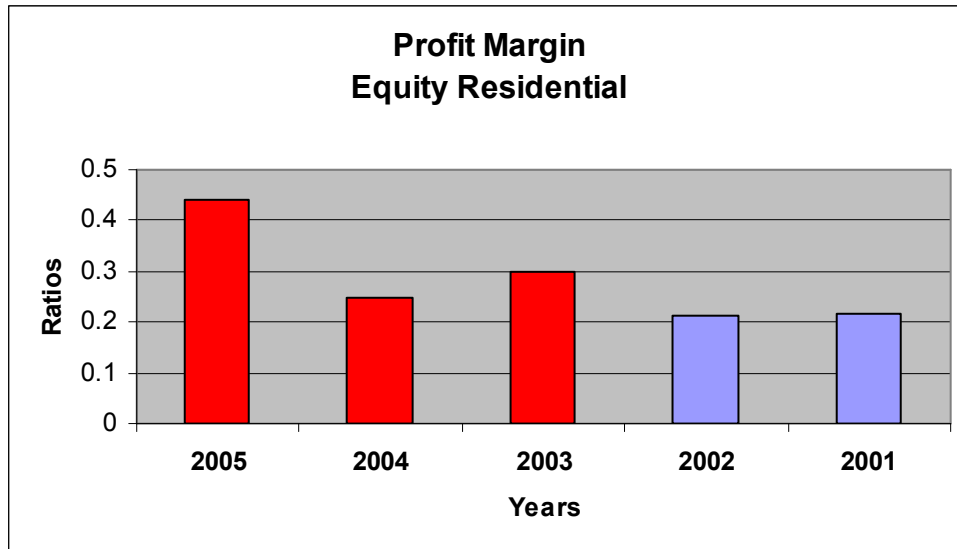


There is a great deal of volatility here, which is to be expected in a technology based company since they have to keep up with rapid changes in trends. Perhaps because of the industry they are, this ratio is not very indicative of performance.

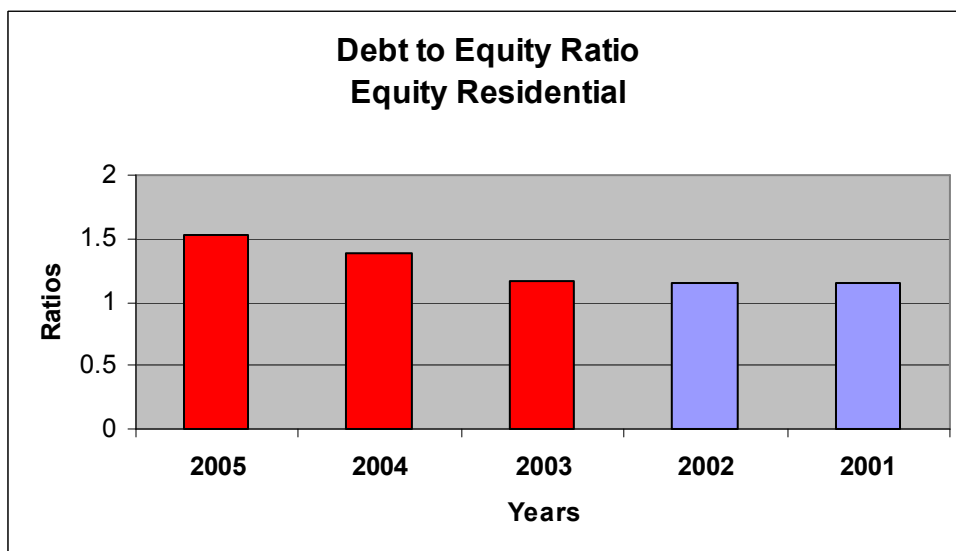
Equity Residential: This company received the BEST awards in 2003, 2004, and 2005. They developed a two day workshop that was mentioned in the *Excellence in Workplace Learning and Performance: The ASTD Awards* magazine (2005). This program has helped them develop an Action Selling plan to raise sales.



Looking at the astounding rate of growth from 2004 to 2005, it is safe to say that there was an increase of attention to training and development during the years when they won the BEST awards.



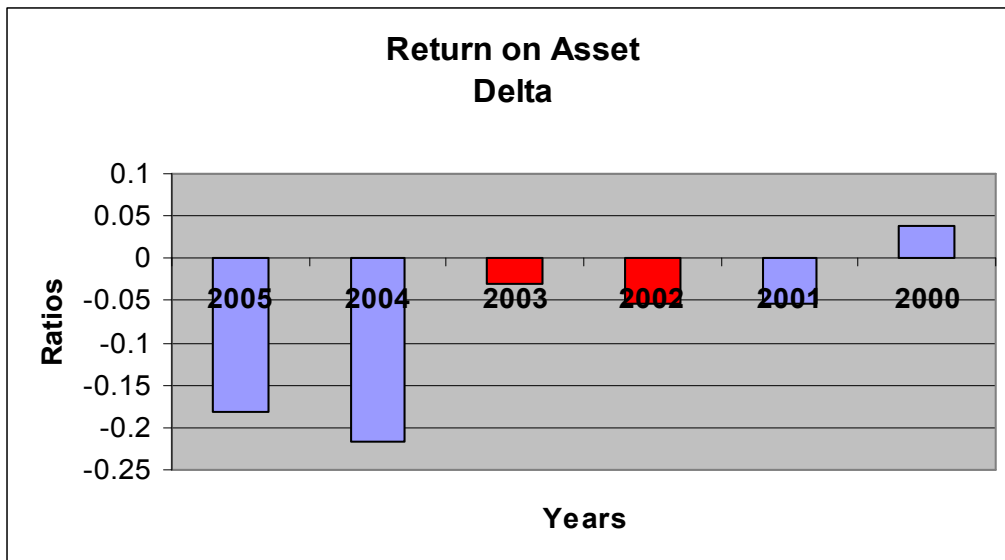
Again, here we can see the rate of growth from 2004 to 2005 during the years when they won the BEST awards.



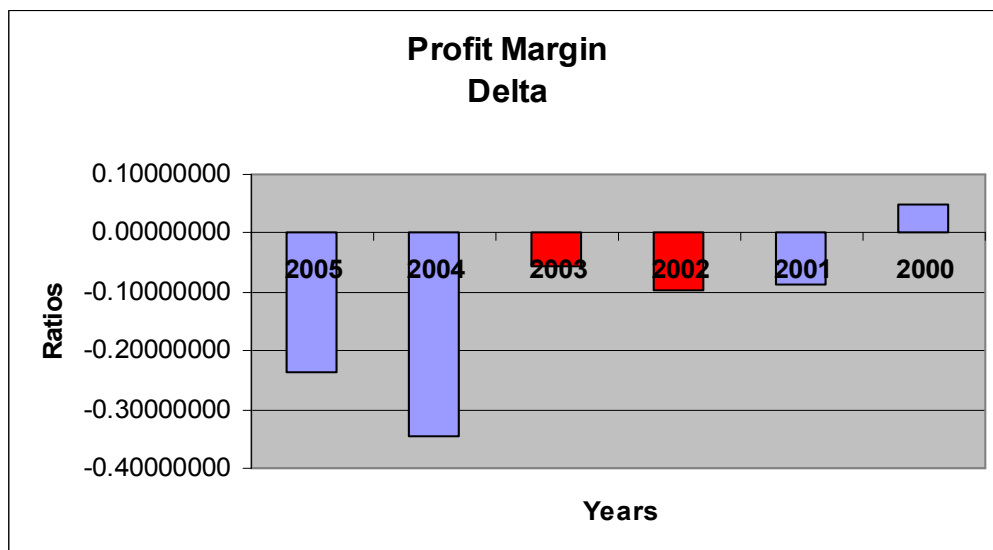
As we can see, the ratios are increasing as each year progresses. This implies that they have been increasing their earnings through financing

Delta: Delta Air Lines Inc. received the BEST Awards in 2001 and 2002. It is common knowledge that Delta filed for bankruptcy in 2003 and all of their liabilities were dissolved. It is with great curiosity that we look at the data since this company

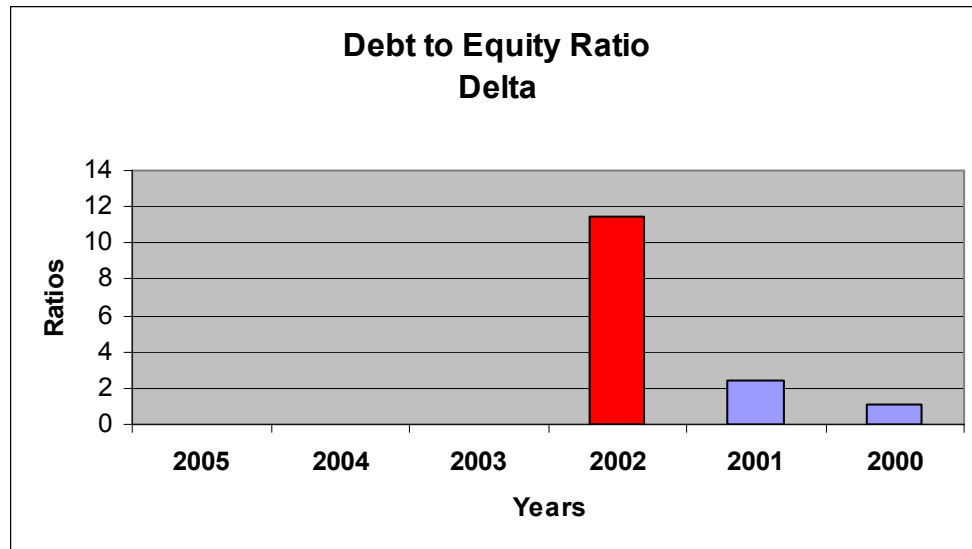
was the only one who won an award during bankruptcy; perhaps the data presented before 2003 could be an indicator of what happened in 2003. In the *Excellence in Workplace Learning and Performance: The ASTD Awards* magazine (2002), Delta was recognized for "career path training and designing programs to reach those goals (p. 8)." In the 2003 edition of the magazine mentioned above, it was mentioned "that under the leadership of the new VP of HR [at the time], the company became focused on talent management, organizational effectiveness, e-learning, and corporate training (p. 28)." Let's take a look at the data:



Delta is earning less money on more investments so their Return on Assets are very low.

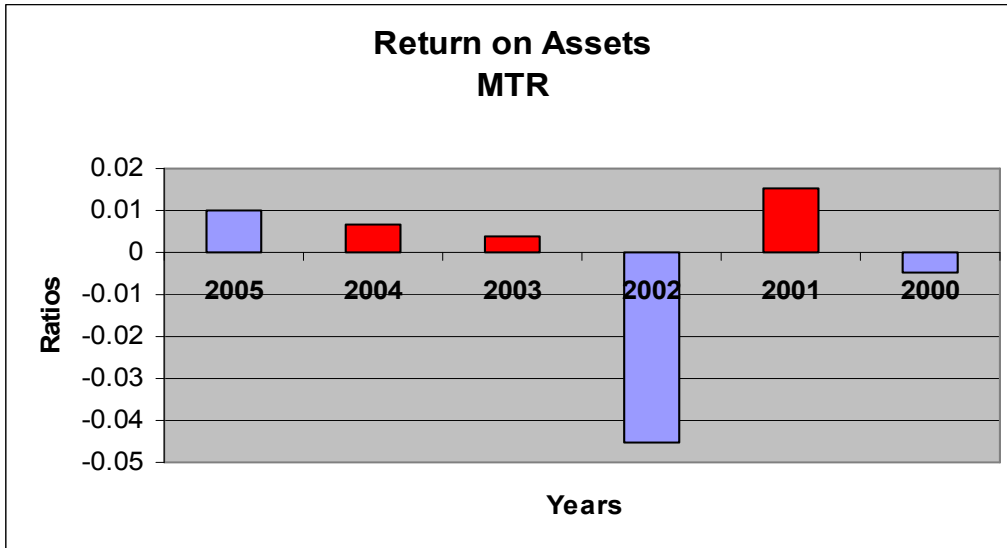


Here it can be observed that the BEST awards might have helped Delta in 2003, but as of 2004, there profitability significantly decreased as a result of their bankruptcy.

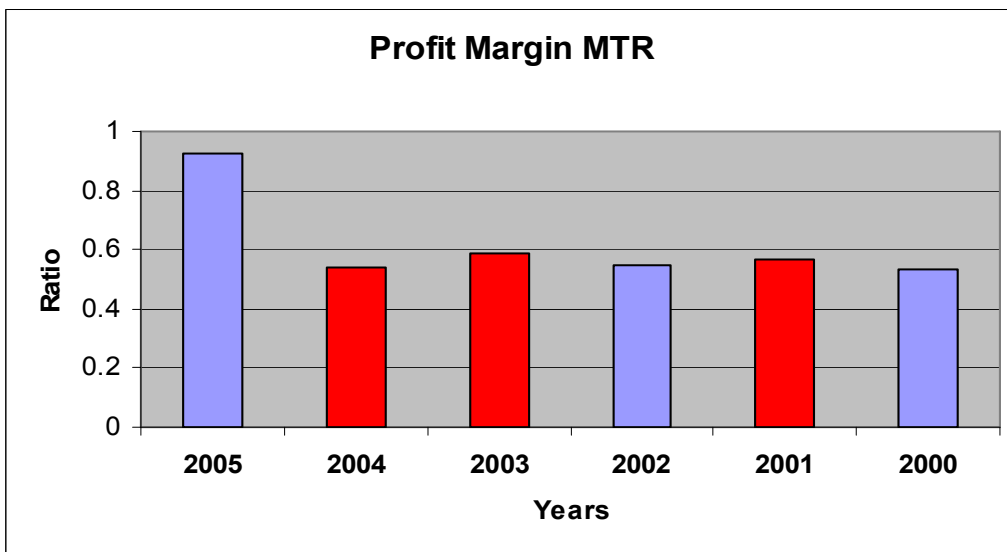


Perhaps this chart is the most telling of all presented because we can see how much they had to finance in order to increase their bottom line. If we look at profitable at 2002, it is still on the decline with all of this financing.

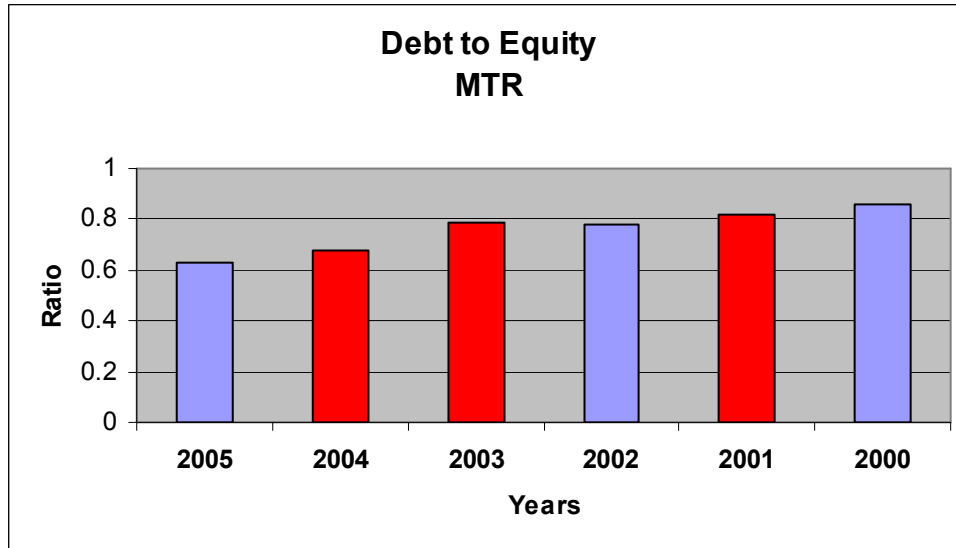
MTR: MTR builds mass transit railways in Hong Kong. This organization is very large and an important part of Hong Kong society. MTR won the BEST awards in 2001, 2003, and 2004. They were recognized for their excellence in career development in 2001, and this process involves helping employees achieve their long term goals within the corporation. They developed the Executive Accelerated Development Program which helps them "build groups of talented individuals for cross-functional strategic placement in the corporation" as pointed out by the *Excellence in Workplace Learning and Performance: The ASTD Awards* magazine (2001, p. 10).



Here we notice that after incurring a significant decrease in 2002, in 2001, 2003 and 2004, which are also the years when the company won the BEST awards, they experienced growth.

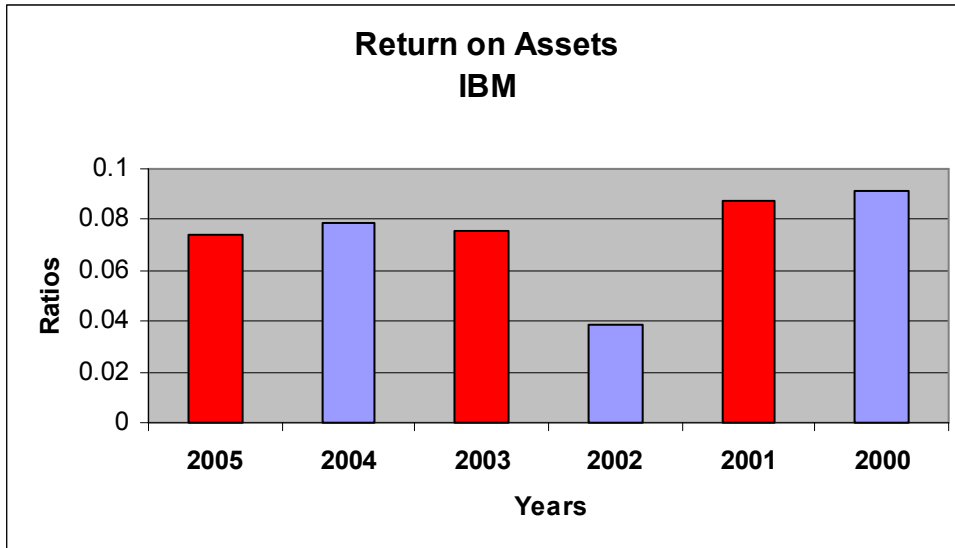


Although growth had been consistently on the positive side, there really is not outstanding proof that growth was fuelled because of the BEST organization recognition.

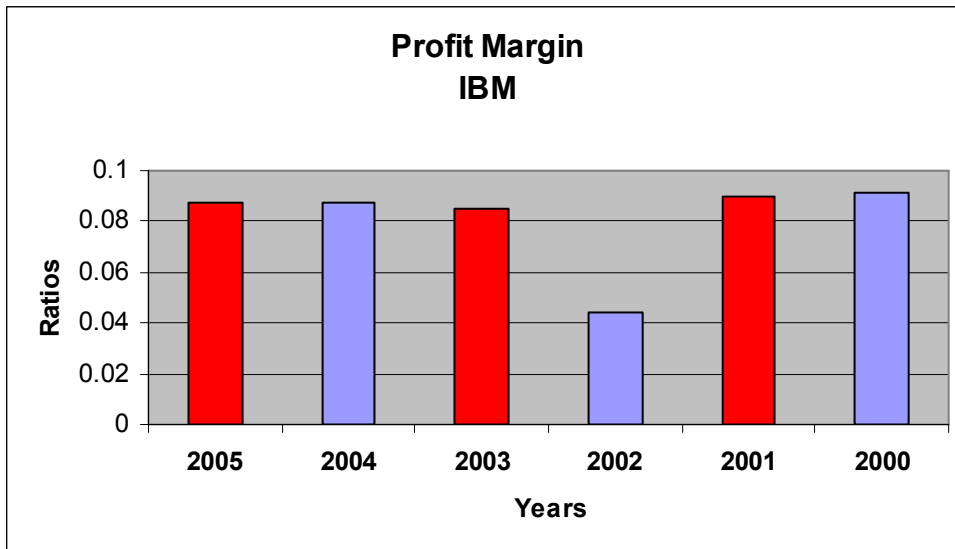


Outside financing has been used less and less from 2000-2005. This means that the company is relying on other resources to raise funds.

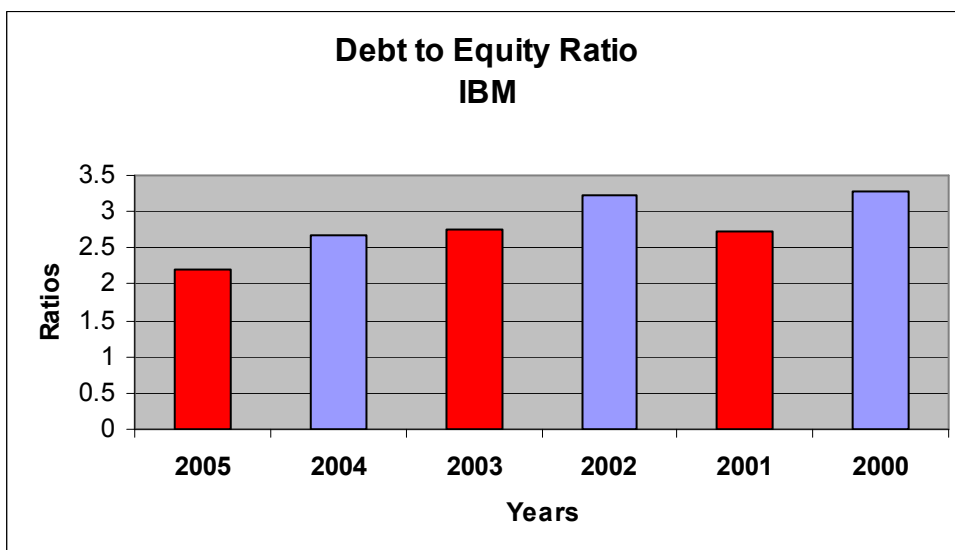
IBM: First winning the award in 2001, for its excellence in Virtual Collaboration Space, IBM has proven to be a training and development force to be reckoned with; the Virtual Collaboration Space has provided a forum where people from all over the world can have meetings at the simultaneously as confirmed by *Excellence in Workplace Learning and Performance: The ASTD Awards* magazine (2005, p. 9)." The setting up of a new system called on demand, helped IBM receive this award in 2005; "the on demand experience is based on the recognition that technology offers the opportunity to integrate learning with work in order to enhance performance in a dynamic, interactive, and measurable way" as explained by the *Excellence in Workplace Learning and Performance: The ASTD Awards* magazine (2005, p. 61).



This shows that IBM is going very well with they way they use their assets to make money.

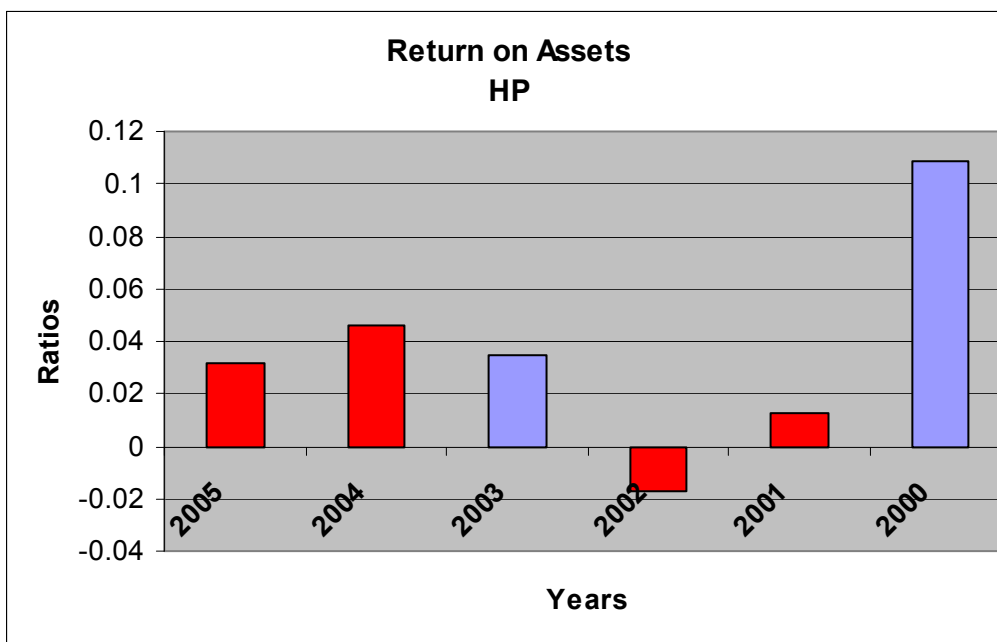


Profit Margins are good and have improved on years they won the awards.

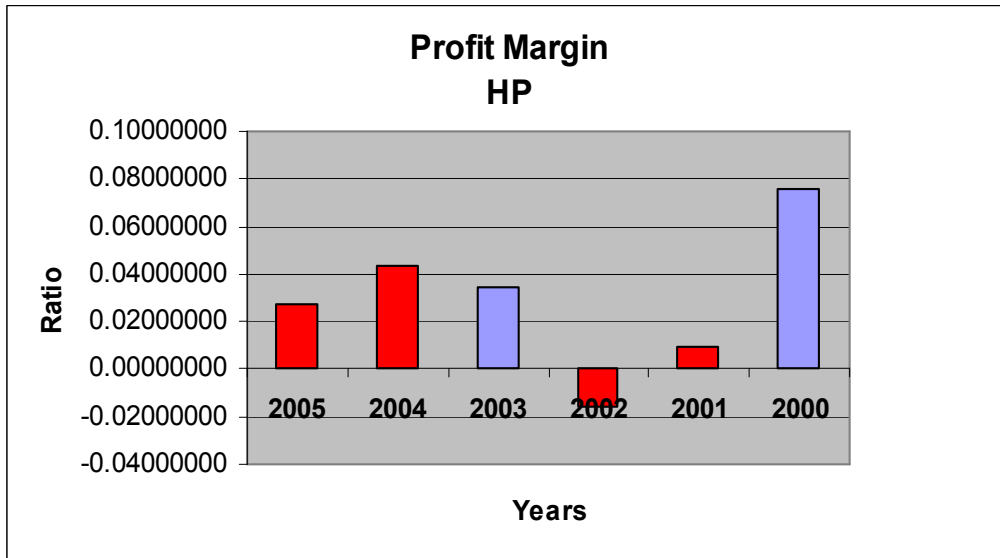


This ratio is on the decline, especially when we look at the years in red. This means they are using less financing to increase growth in the company.

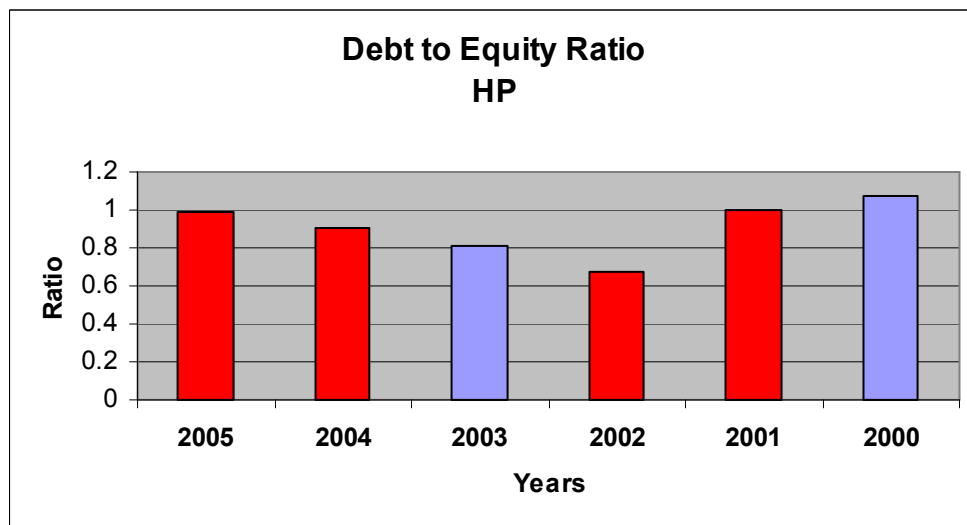
Hewlett-Packard: HP was the only company to be recognized as a BEST organization for four years. In the *Excellence in Workplace Learning and Performance: The ASTD Awards* magazine (2001) edition it was stated that, they were able to "replace traditional products training with an electronic performance support system" to better help their clients (p. 8). This new system "will be projected to realize a \$23 million annual cost reduction (p. 8). For the 2002 edition of the magazine, they were recognized for workplace learning and development and career development. New program development along with more coaching put them on the list in 2004 and in 2005 a specialized program called Basic Essential Selling Skills Training (BESST) put them on this list again.



For years examined, it seems that being part of the BEST organizations did not make a bit of difference as to how they used up their assets.



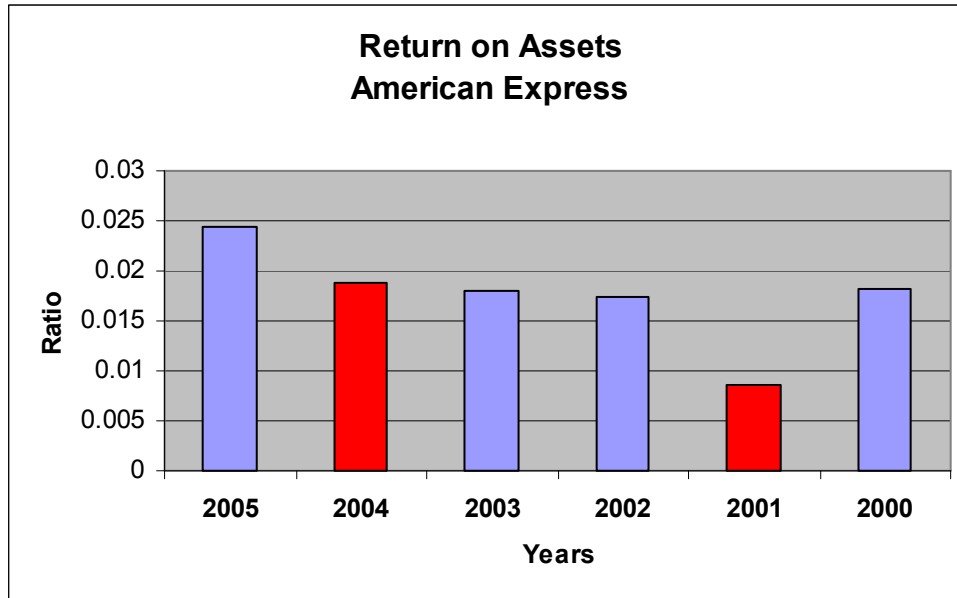
Winning the BEST awards does not seem to make much of a difference in HP if reference to its profitability. It is interesting to note that when an organization wins the award, it does not necessarily mean that a company is more profitable.



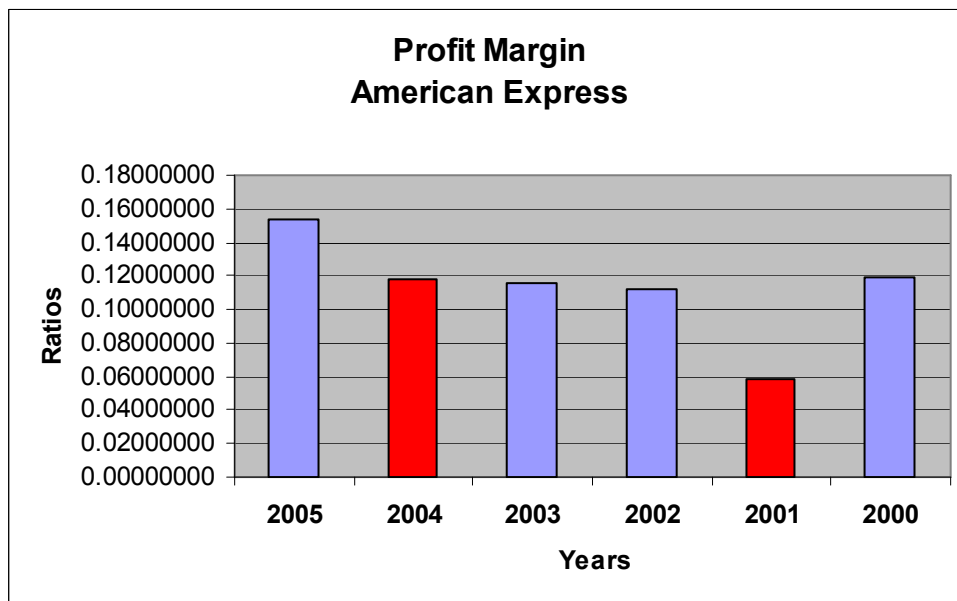
We notice the same pattern here as well. There is really no correlation with training and recognition as a means of reducing costs.

American Express: Is a service based credit card company and they were a BEST organization in 2001 and 2004. Because many employees leave the company, American Express came up with a Retention Toolkit and Workshop Practice to fine tune leaders in the firm as stated in the *Excellence in Workplace Learning and Performance: The ASTD Awards* magazine (2001, p. 5). Because of their

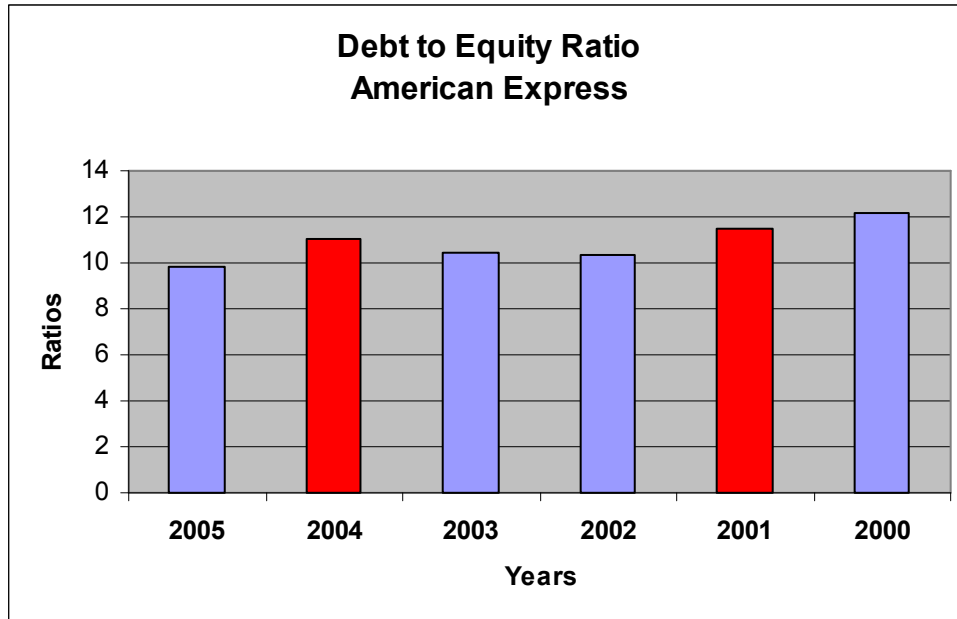
commitment to the training of line managers, they were able to "reduce the cost of transactions by 5%, which was a savings of \$2.8 million (p. 5)."



There has been an increase in the way the way they use their assets to increase earnings.

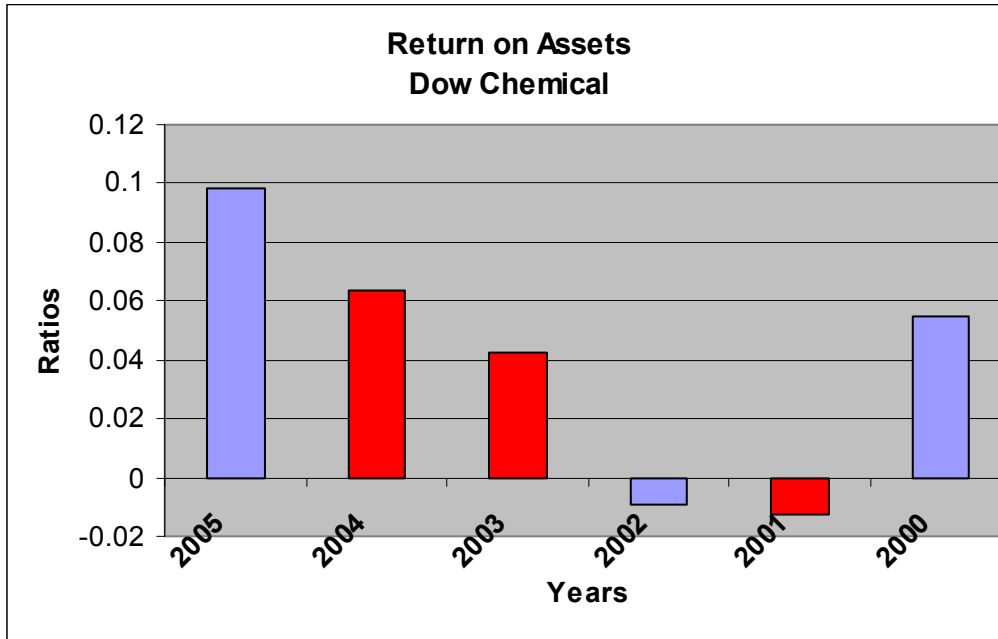


Profitability has increased during the times they were got their awards which is a good sign to detect the effectiveness of training.

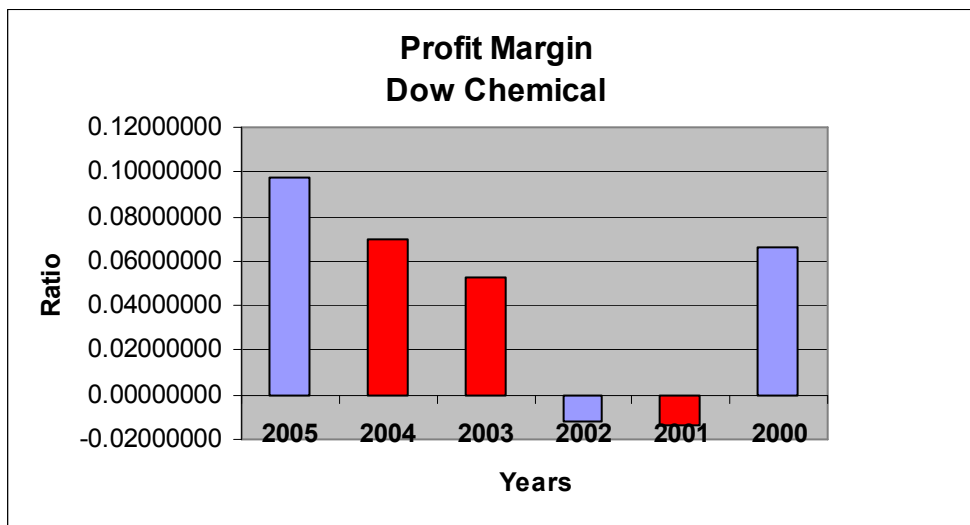


There has not been much of a difference here so perhaps training cannot be correlated to financing for earnings.

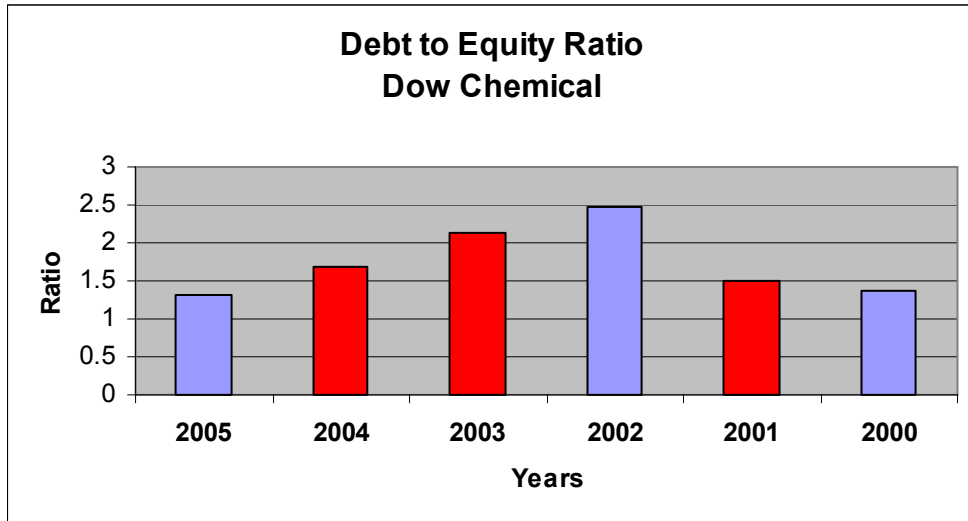
Dow Chemical: In the *Excellence in Workplace Learning and Performance: The ASTD Awards* magazine (2001, p. 7), they were recognized in three areas; performance management, which resulted in an \$8.5 million cost savings, electronic learning technologies, that saved them \$22 million, and organizational learning, which has made it easier for new employees to get involved much sooner. These ratios should indicate that Dow Chemicals financial performance has benefited from training and development.



The increasing trend in ROA is a great sign that they have been able to use their assets to their best potential.



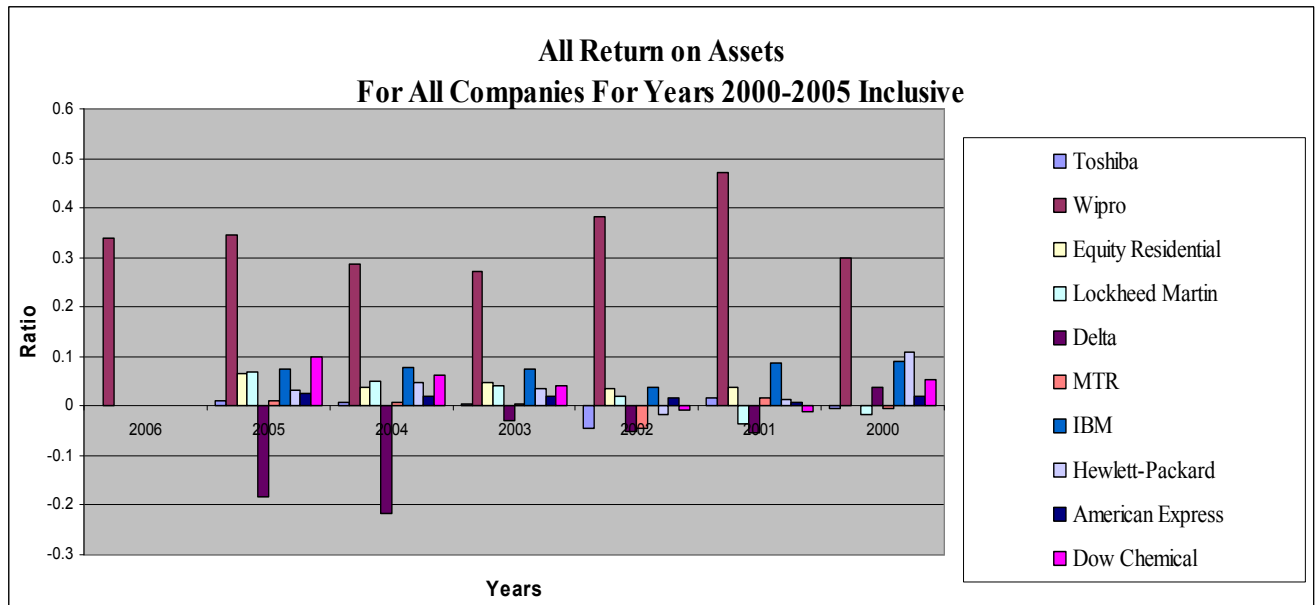
The increasing trend in profitability is also a great sign that training could be measurable in this manner.



This decrease in trends shows that they are using less financing to increase their earnings.

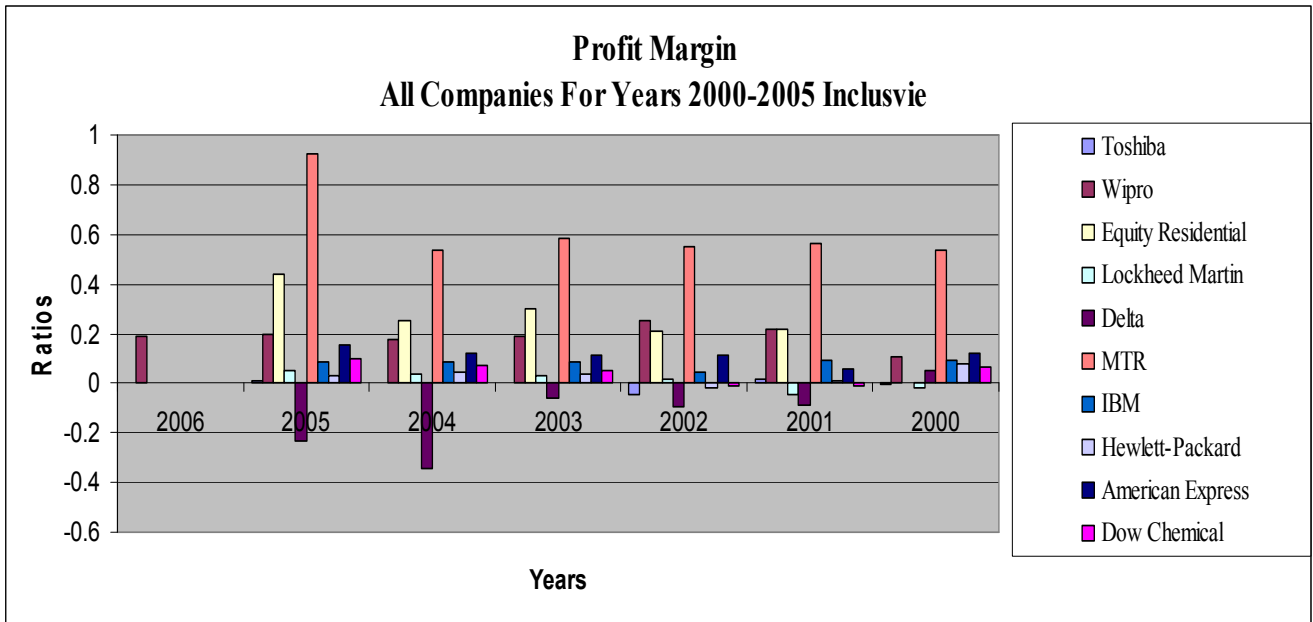
Company Comparisons

It would be interesting to see how the companies ranked with each other, therefore several charts and graphs have been composed to better show these changes and how these ten organizations compare to each other.

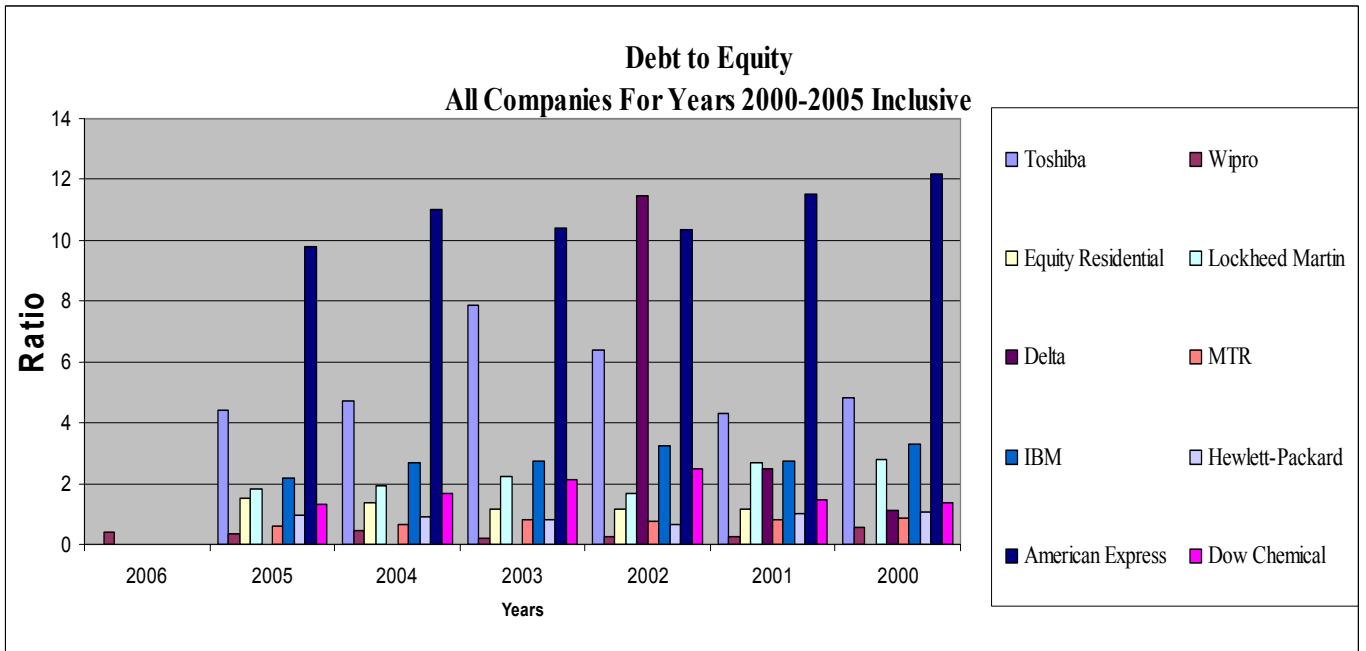


The highest return on assets was from Wipro and the least was Delta.

Everything else was pretty much on the positive side for most years.

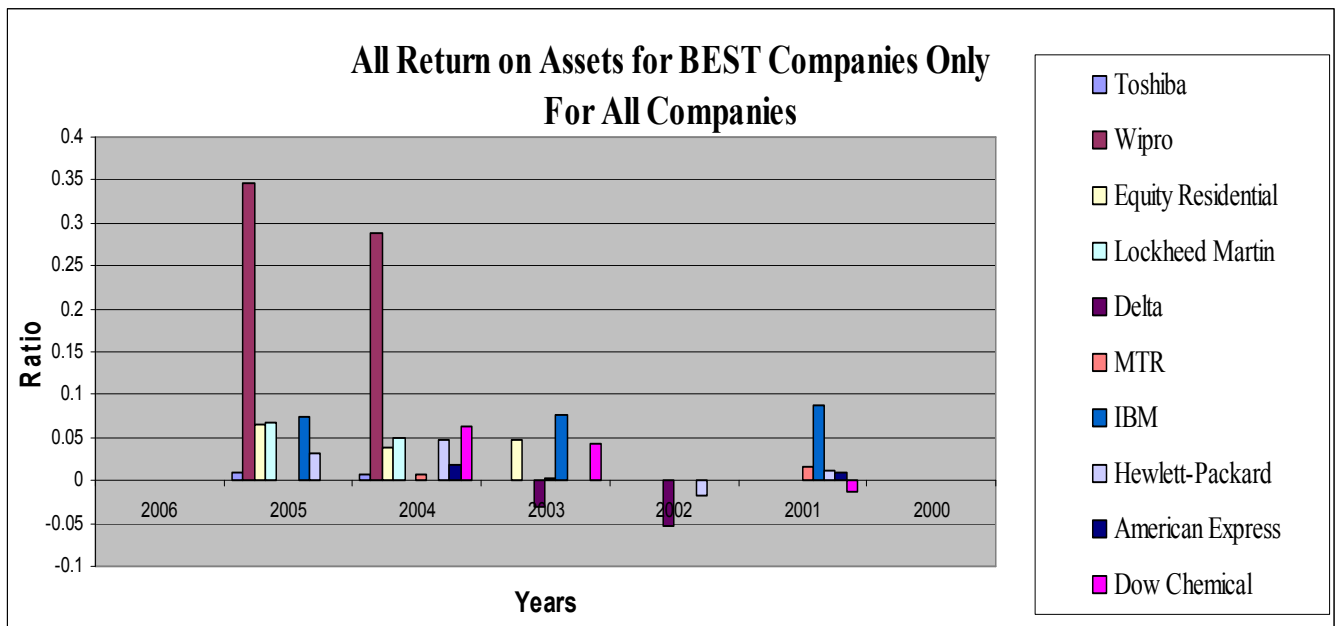


Here we can see that MTR has the highest profit margins out of all the companies examined; especially on the in 2005 and 2004 when it was recognized as a BEST organization.

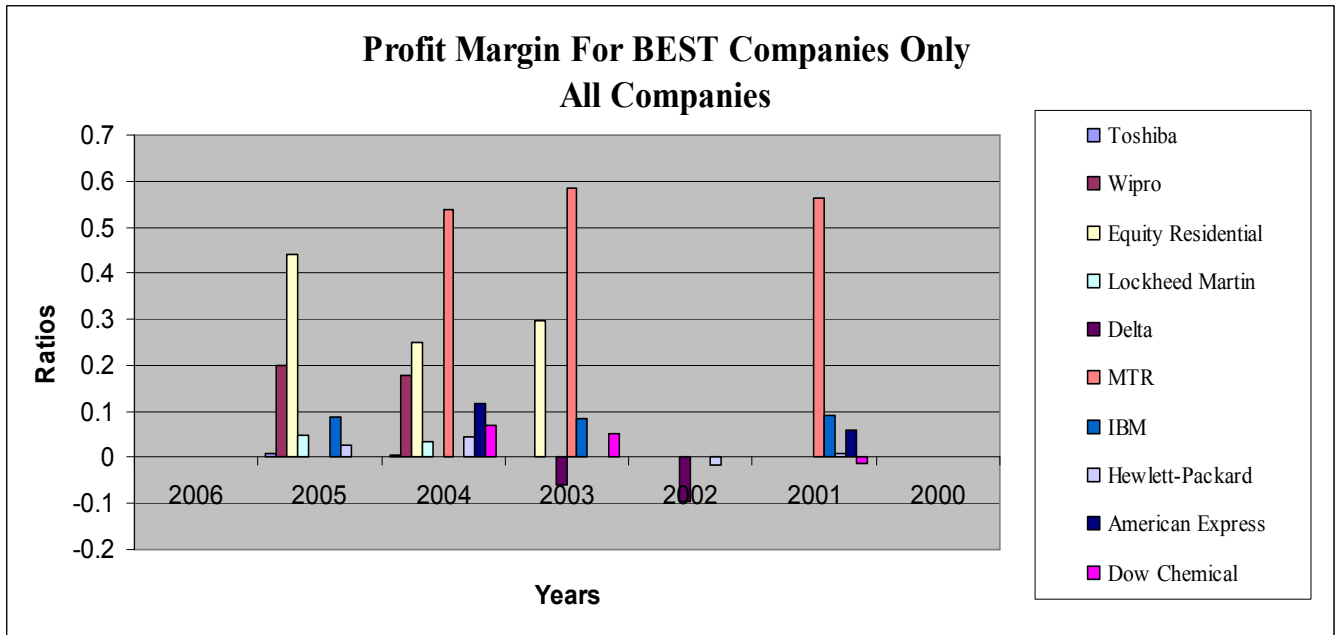


This chart clearly states that, within these companies, the trend is to reduce the raising of funds through the use of financing. If we notice the trend, we can see that American Express is an obvious outlier.

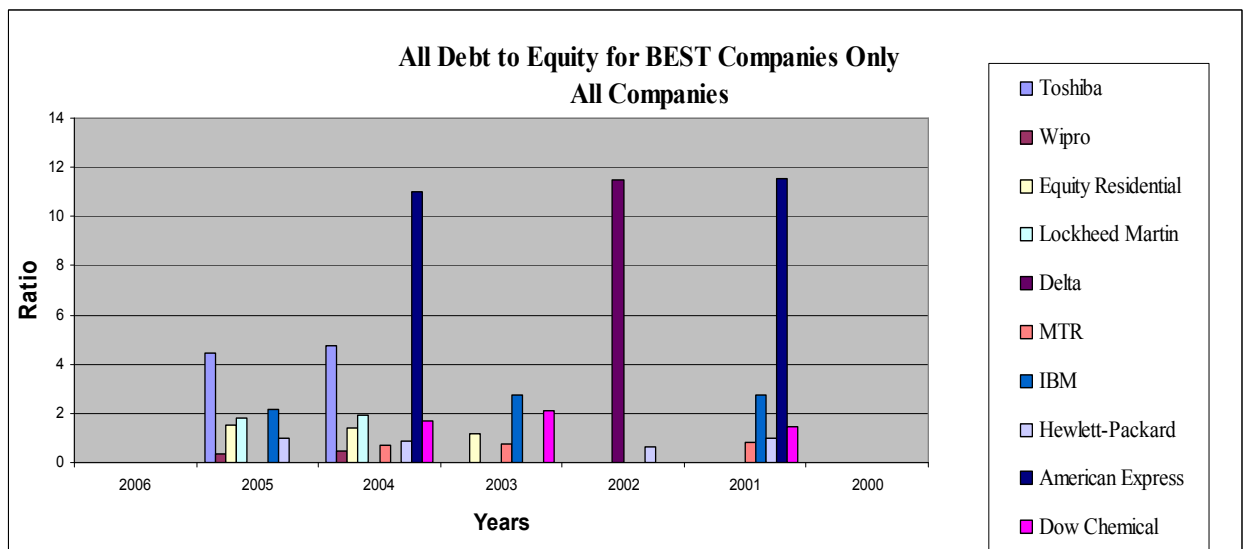
For the purposes of finding the most accurate trends for these companies, we need to look at the trends for years when the companies were recognized for being a BEST organization. Perhaps the data will not change as much but it might provide sufficient evidence to determine if costs and training expenditures (which we have defined as years when these companies won the BEST Awards), have an impact on performance.



Wipro is still the leader in this category. To recall, some companies place their training costs as assets so looking at this chart could be a good indicator of how the company is doing.



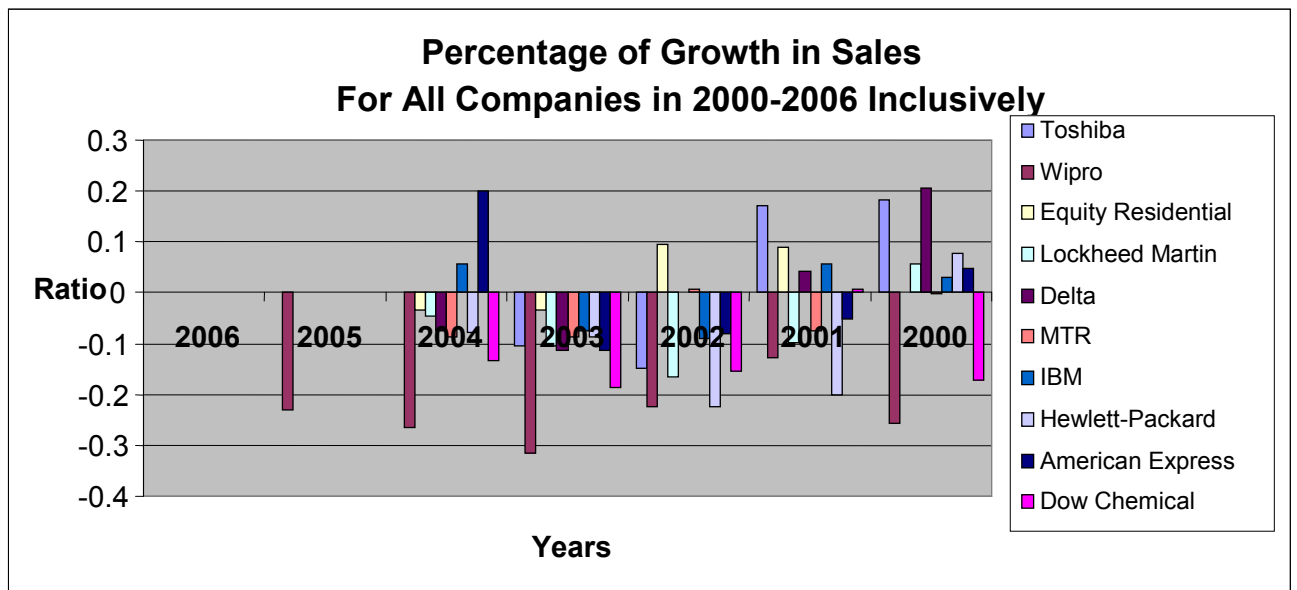
MTR is still a leader here, but Equity Residential turns out to be a considerable opponent for MTR. However, if we look at the trend between both companies, we can see that the growth is not consistent.



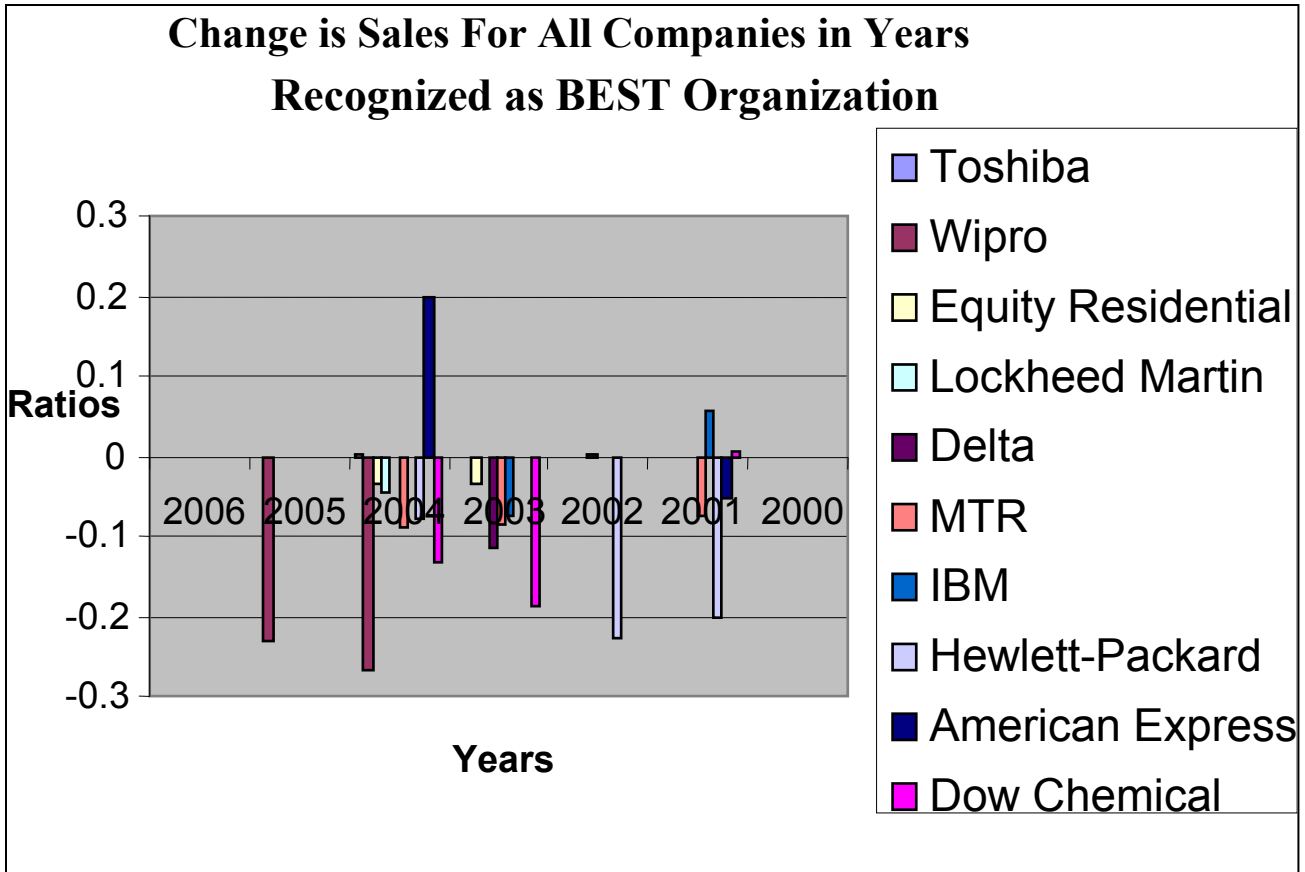
Not surprising enough, American Express and Delta are at the top of list. American Express had a high ratio in the previous chart and Delta's financial woes put it at the top of list in 2002.

Sales and Cost of Goods Sold

By looking at the ratios above, we are able to get an idea of how companies are doing financially. However, in an effort to present all valuable and useful information available, we should also explore changes in sales and cost of goods sold from 2000-2005 and to look at the years when the companies were recognized as a BEST organizations as well.

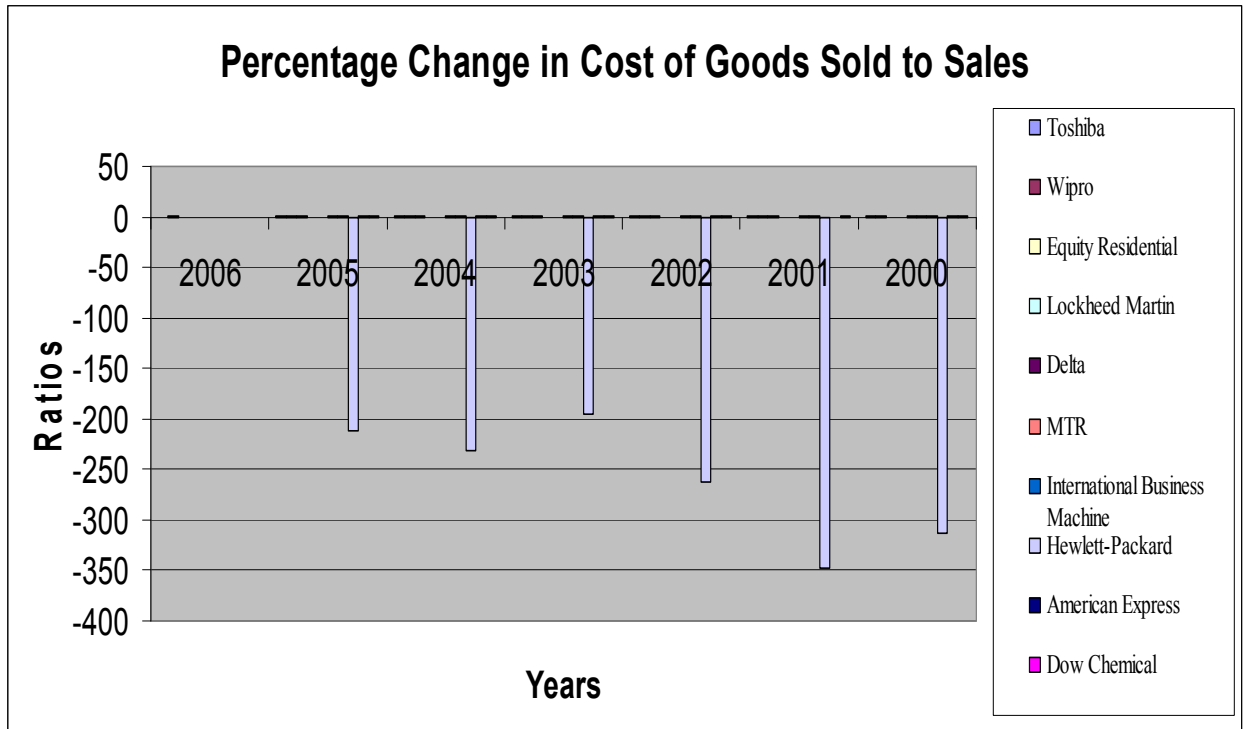


The most interesting conclusion that can be noted is that the changes in sales are mostly negative with the exception of American Express and Toshiba. Let's see if the ratios change when we only look at the years of recognition.



It is very interesting to see that only American Express and IBM show significant amounts of growth for the years they won the awards. Wipro, which had very large asset returns, has the largest negative change in sales.

The following chart shows us the cost of goods sold for all years.

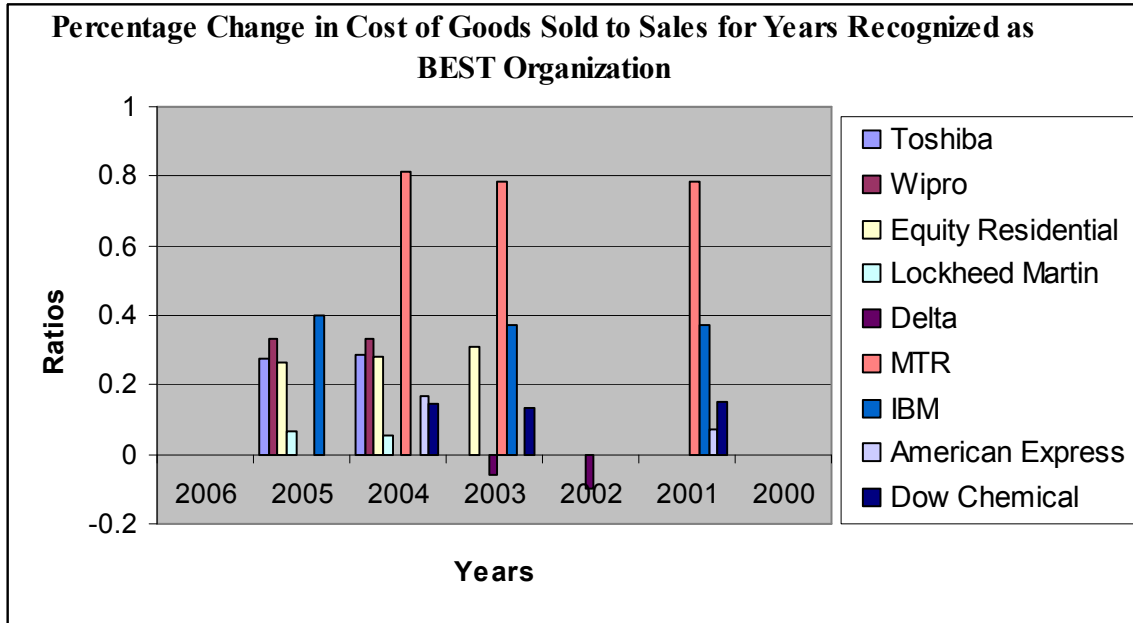


Remarkably, HP has, by far, the largest negative change in costs of goods sold to sales. The other companies do not even show up on the chart!

While only looking at the years in which the companies were recognized we can see that the results do not change; this can be seen below:



Since, HP is an obvious outlier, it has been taken out of the next chart so we can see any changes with regards to the companies being analyzed:



MTR is the clear leading now in positive changes in cost of goods sold to sales.

RESULTS

As a result of looking at all of the data and charts, we can finally see training costs and revenue are not really correlated. As we can observe through the analysis made in the paper, there is no concrete evidence to suggest that training costs affects the bottom line. Training costs as related to winning the BEST awards from the ASTD was not a valid or reliable indicator of performance within the companies analyzed. As mentioned at the beginning of the paper, the paper thought to confirm the idea that training costs increase revenue (i.e. performance). This idea was quickly dispelled when the studied showed a large lack of correlation between training costs and performance. It must also be noted that training is a long term investment and that, because of this, the consequences of training costs may need longer time to be seen on companies revenues and cost-minimizations goals. Perhaps, the cost of training is more intangible and non measurable that perceived at the beginning of the paper.

CONCLUSIONS

Since training costs are not required to be shown as a line item on financial statements by companies, it is difficult to find comparative data. It would have been great to have this information so that the topic of which type of training would be the most useful to the staff and corporation. Through the testing used during this study, no reliable and valid data could be assessed. Because of this, we must look at prior year performances of each company to determine were also examined so that a more complete view of what the companies were doing during 2000-2005. Possibly, the most important thing learned from this study is that training and development is an important and intangible part of organizations.

RECOMMENDATIONS

Due to the lack of comparative training costs, this study had to rely on an organization to provide training expenditures and savings. If there were a Generally Accepted Accounting Principal or an International Accounting Standard issued that made sure companies reported their respective training costs, it would not only be useful to organizations as a comparative advantage, but it could also help generate revenues as well. For example, if at one of the top accounting or law firms decided to publicly mention that they spend a specific amount of money on their trainings, more potential staff members would want to join the company and these accounting and law firms could, justifiably, charge a larger fee due to better knowledge of the staff. Although firms from various industries would have to determine a way to track and report these costs, their usefulness in the market could be immeasurable and invaluable.

Further research should be directed to survey CEOs and other chief officers of corporations so that their perspectives of training programs can be measured and reported for efficiency; in other words, questionnaires should be sent to see how training affects the bottom line. In addition to this, research should be conducted as to whether there is a way to analysis the motivation of employees as this could be the main trigger in raising revenue and minimizing costs after training is giving. Though it would be difficult to determine a person's motivation, a paper on how to measure motivation in dollars could help change the results of this current paper.

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APPENDIX- SUPPLEMENT TO STUDY

List of companies that have won the BEST awards from the ATSD in their respective years.

Company	Year
Accenture	2004 (p. 4)
American Express	2001 (p. 5)
American Express	2004 (p. 4)
Americredit	2003 (p. 4)
Army Management	2003 (p. 4)
AT&T	2004 (p. 4)
Barclays Bank	2005 (p. 28)
Blue Cross and Blue Shield	2003 (p. 4)
Booz Alleen Hamilton	2001 (p. 5)
Booz Alleen Hamilton	2003 (p. 4)
Booz Alleen Hamilton	2004 (p. 4)
Booz Alleen Hamilton	2005 (p. 28)
Bowater Inc.	2001 (p. 6)
Capital One Financial Service	2005 (p. 28)
Caterpillar Inc	2005 (p. 28)
CheckFree Services Inc.	2005 (p. 28)
Colorado Springs	2005 (p. 28)
Compaq	2001(p. 6)
Computer Sciences Corporation	2005 (p. 28)
Deloitte & Touche	2004 (p. 4)
Deloitte & Touche	2005 (p. 28)
Delta Air Lines	2002 (p. 8)
Delta Air Lines	2003 (p. 4)
Dewberry	2003 (p. 4)
Dow Chemical	2001 (p. 7)
Dow Chemical	2003 (p. 4)
Dow Chemical	2004 (p. 4)
EMC Corp	2005 (p. 28)
Equity Residential	2003 (p. 4)
Equity Residential	2004 (p. 4)
Equity Residential	2005 (p. 28)
Gecis India	2005 (p. 28)
General Electric	2001 (p. 8)
General Motors	2001 (p. 8)
Harleysville Insurance	2003 (p. 4)
Heath First	2003 (p. 4)
Hewlett-Packard	2001 (p. 8)
Hewlett-Packard	2002 (p. 8)
Hewlett-Packard	2004 (p. 4)
Hewlett-Packard	2005 (p. 28)
ICICI Bank	2004 (p. 4)

Company	Year
ICICI Bank	2005 (p. 28)
Infosys Technologies Limited	2003 (p. 4)
Intel	2005 (p. 28)
Internal Revenue Service	2003 (p. 4)
International Business Machine	2001 (p. 9)
International Business Machine	2003 (p. 4)
International Business Machine	2005 (p. 28)
Israel Discount Bank Ltd	2005 (p. 28)
Johnson Controls Inc.	2005 (p. 28)
KLA	2004 (p. 4)
Lockheed Martin	2004 (p. 4)
Lockheed Martin	2005 (p. 28)
Marriott International	2003 (p. 4)
Memorial Hermann Healthcare System	2001 (p. 9)
Merck and Company - Manufacturing Division	2005 (p. 28)
Metris Companies Inc	2001 (p. 9)
MTR Corp LTD	2001(p. 8)
MTR Corp LTD	2003 (p. 4)
MTR Corp LTD	2004 (p. 4)
MultiCare Health System	2005 (p. 28)
NIIT	2003 (p. 4)
Northwire Inc	2004 (p. 4)
NY Life Insurance and Annuity Corporation	2001 (p. 10)
Ochsner Clinci	2004 (p. 4)
Office of the Under Secretary of Defense	2003 (p. 4)
Office of the Under Secretary of Defense	2004 (p. 4)
Old Mutual	2004 (p. 4)
Orkin, Inc	2003 (p. 4)
PeopleSoft	2004 (p. 4)
Portland General Electric Company	2005 (p. 28)
PricewaterhouseCoopers	2003 (p. 4)
Qualcomm	2005 (p. 28)
Quebecor World	2001 (p. 10)
Reliance Industries Ltd	2005 (p. 28)
Sandia National	2003 (p. 4)
Scotiabank	2001 (p. 11)
St. George Bank LTD	2005 (p. 28)
Sterling Bank	2004 (p. 4)
Sterling Bank	2003 (p. 4)
TATA Consultancy Services Ltd	2005 (p. 28)
Telus	2003 (p. 4)
Telus	2004 (p. 4)
Telus	2005 (p. 28)

Company	Year
The Schwan Food Company	2003 (p. 4)
The Schwan Food Company	2004 (p. 4)
The Schwan Food Company	2005 (p. 28)
Toshiba	2004 (p. 4)
Toshiba	2005 (p. 28)
Toyota	2002 (p. 9)
Unisys Corp	2004 (p. 4)
Verizon	2002 (p. 9)
Whirpool Corporation	2004 (p. 4)
Wipro Tech	2004 (p. 4)
Wipro Tech	2005 (p. 28)
Xerox Corporations	2001 (p. 11)

Note: From “*Excellence in Workplace Learning and Performance: The ATSTD Awards 2001-2005*,” by *The American Society of Training and Development*.

The next few pages are the financial data used for the charts and analysis. All of this information is from Mergent Online. They are arranged in the same order that the paper is organized. Please note that any columns which have been filled in color, represents the year in which the company won the BEST Awards.