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## The Changing Workplace: Employee Responses Over Time at One Large American Company

Leon Grunberg  
Sarah Moore  
Patricia Sikora  
Edward Greenberg

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Work, for many Americans, has changed significantly over the last twenty-five years. Two scholars, in a recent comprehensive overview of research on work, go so far as to conclude that we now have a “radically transformed American workplace” (O’Toole and Lawler III, 2006: 78) even as they acknowledge the evolutionary nature as well as the complexity and diversity of the changes and their effects. The locus for many of the most wrenching changes has been large corporations subject to global competition, what O’Toole and Lawler (2006) call “Global Competitor” organizations. Many of these corporations have had to grapple with several major developments simultaneously. Increased and intensified international competition, new information and communication technologies, and the enhanced power of outside investors are just three of the more powerful external forces that have compelled managers to restructure their organizations and change their business practices. Researchers, managers, and employees have become familiar with a new lexicon to describe these changes: downsizing, reengineering, core competencies, outsourcing, and off-shoring, for example. Despite the frequency with which these terms are used, they often fail to connote what it is like for those working in these large corporations to live through these turbulent times.

Our purpose in this paper is to describe what living through these changes is like from the surviving employee’s point of view. Tracking the work-related attitudes and sense of well-being of a cohort of several hundred individuals as they experience a roller coaster ten year journey (1997-2006) -- marked first by their company’s loss of market share, poor financial performance and multiple waves of mass layoffs and then by market success, soaring profits and re-hiring -- can help us answer several important questions about the psychological consequences of such changes. Did the increased automation and lean processes the company introduced, for example, improve workers’ satisfaction and involvement with their work? Did the repeated cycles of mass layoffs fray their sense of loyalty and trust in the corporation beyond repair? Are we witnessing

the establishment of a fundamentally new psychological contract between employers and workers, one that is more “market-like, distant, and transactional” as some have claimed (Pfeffer, 2006)? Or is it possible to restore a sense of trust and commitment when the tough times seem to be over? What happened to the self-assessed health and well-being of these employees as they experienced ten years of repeated waves of mass layoffs and significant restructuring? And even if corporate recovery leads to more contented employees, have their experiences produced a reassessment of the importance of work in their lives and a shift in commitment away from work and towards a deeper engagement with their family and friends?

### Organizational Change and Its Impact on Employees

The literature on organizational change is large, covering among other issues, the factors that lead managers to initiate change, the efficacy of different modes of implementing change, resistance to change among employees, as well as the effects of change on performance and employee attitudes to the organization and to the job. (For a review of studies conducted in the 1990s, see Armenakis and Bedeian, 1999). What many researchers agree on is that organizations are increasingly engaging in multiple changes simultaneously and that these are often not discrete events but are part of an ongoing process (Kiefer, 2005). Moreover, the effects of these multiple and ongoing changes produce complex and often ambivalent results. For example, change can lead to both an improvement in product quality and productivity but also to lowered morale and commitment among the workforce (Gilmore, Shea and Useem, 1997). It is also possible that assessment of the impact of organizational change may be incomplete or even faulty if measured too soon after the changes (Beer and Eisenstat, 1996). Hence the widespread call by researchers in the field for longitudinal research that captures the complexity and evolutionary nature of employee responses to organizational change (Piderist, 2000; Pettigrew, 1990; Van de Ven and Huber, 1990).

Our aim in this paper is to focus on the effects on employee attitudes of the multiple and ongoing changes at one large company. We will not rigorously examine the rationale provided by the company for the changes nor will we assess the effectiveness or fairness of how these changes were implemented.<sup>1</sup> In this paper, we track the job attitudes (e.g., role overload), organizational attitudes (e.g., trust in the integrity of management), experiences of family and work (e.g., work to family conflict), and mental and physical health (e.g., depression) of a cohort of surviving workers at four separate time periods: 1997, late 1999/early 2000, 2003, and 2005. As noted earlier, our overarching question was one of exploring in what way(s) surviving employees are affected – both positively and negatively -- by such pervasive and complex organizational change. Assuming that employees might show evidence of some negative impacts during the company's difficult times, we are also interested in exploring whether or not surviving employees "bounce back" following the company's recovery. Although much has been written about the effects of, for example, a single downsizing event on selected measures of work or well-being (e.g., Tombaugh and White, 1990; Knudsen, Johnson, Martin and Roman, 2003), much previous research has been cross-sectional in nature, rarely following the same cohort of employees over many years, through to a point in time where the organization once again enjoys financial success.

We also pay special attention to what happens to employees' sense of commitment and devotion to their work roles as compared to other important spheres of their lives, such as family, friends and leisure activities. This focus on possible shifts in their level of engagement with different life domains has particular salience in the current period as both the terms of the psychological contract between employer and employee and traditional family and home arrangements and obligations seem to be undergoing substantial revision. Several authors are pointing to declining levels of trust in top management, commitment to company goals and engagement with work among workers (Pfeffer, 2006; Gallup, 2002). Others are describing major

changes in family roles and in the allocation of time between work and nonwork domains among the labor force (Hochschild, 1997; Jacobs and Gerson, 2004).

**While most of our paper describes changes in attitudes and well-being of the whole sample, we will also examine whether demographic or certain work-related experiences produce different patterns of responses over time. For example, do women, especially those who have families and therefore are assumed to face more acute competing demands from home and work, respond to disruptive workplace changes with a greater shift in commitment away from work and towards family (Bielby and Bielby, 1989)? Does the age of the workers make a significant difference in how they respond to organizational change? Do the attitudes and orientations of workers become more stable as they age (Lorence and Mortimer, 1985), or does their devotion to work, for example, decline in their later years? And, of course, although everyone in an organization is usually aware of, and lives through, the organizational changes, there may be significant variations in the extent and proximity of the change on different groups of workers. For example, one might expect those directly targeted for possible layoffs (that is, they were warned they might be laid off but in fact remained employed by the company) to have more powerful reactions to the changes than other surviving employees, though the direction of their attitude change might depend on particular contextual factors (Grunberg, Greenberg and Anderson-Connolly, 2000). This could all go.**

Finally, we need to emphasize that this paper is primarily concerned with describing changes in attitudes and orientations over time rather than seeking to analyze and rigorously test hypotheses about factors that might be causing the changes. By tracking a diverse group of workers over time we are assuming that changes in their attitudes are likely due to some combination of the multiple changes occurring during those ten years. During this period there were changes in the way their work was organized (due to the introduction of new technologies and new processes), in the structure and size of the company (due to mergers), in top management

(several senior managers were replaced), in the company's employment level (due to layoffs and rehiring), and in the financial health of the company (from low profitability or losses and a low stock price to strong sales, profit growth and historically high stock prices). And of course during the course of the study all the workers in this sample have aged by the same number of years. As will be immediately apparent, some of these changes are deeply interrelated and we will not be able (OR "TRY"?) to disentangle their independent effects nor their relative causal weight in the changes in attitudes that we report in this paper. Our more modest aim is to present trends in real time in the reaction of employees as they lived through this combination of changes. It is rare that studies can track a large number of employees over such a long period, especially a group that has experienced such a tumultuous decade, and it is this feature of our study that we believe makes a useful contribution to the literature.

#### *Brief Description of the Company*

The workers from whom we gathered these data are employed at a large designer and manufacturer of advanced technology products on the West Coast.<sup>2</sup> The division of the company we have studied has seen its employment levels fluctuate over time; as a function of the expected, cyclical variation in work orders, employees were accustomed to cycles of layoffs and rehires, experiencing two substantial ( of between 20 to 50,000) increases and decreases in employment levels over the last 15 years. In terms of our study period, the wave 1 survey was conducted just as a layoff of some 20,000 employees was ending. Following two years of employment gains, the year 1999 saw the division move from close to an employment peak of over 105,000 at the beginning of the year, to the loss of 20,000 workers by the end of the year. Wave 2 coincided with these layoffs. Unlike the pattern following previous mass layoffs, the years at the start of the new century did not see any significant rehiring. Indeed layoffs accelerated in the aftermath of September 11 and did not stabilize at much lower levels until 2005. Wave 3 therefore occurred following a sustained period of layoffs (50,000 had left the division since early 2000), and with

the prospects of additional if smaller layoffs. The final survey (wave 4) was administered in late 2005 as employment levels stabilized at a slightly higher level than that found during the trough of 2004. The division has thus seen the total number of employees fall from a high of over 105,000 in the late 1990s to a low of about 48,000 in 2004. Moreover, the mass layoffs that occurred affected all sections of the workforce from managers and engineers to technicians and hourly production workers.

More than cyclical changes in sales and employment however have occurred over the last fifteen years. Top management implemented a series of comprehensive and significant changes in their strategy and operations. Much of the product design work as well as the system of ordering parts were computerized. Lean production techniques modeled on the Toyota system were gradually spread to all sections of the company, thereby significantly cutting production cycle times. The manufacture and even the design of the product was outsourced to suppliers in the USA and around the world, with the concomitant repositioning of the division around what it perceived as its core competencies in design, integration, and final assembly. All these changes occurred as the company tried to absorb the resources and employees as well as the cultural dislocations brought about by the merger with one of its large competitors.

Not surprisingly, according to managers and workers, these years of change have begun to reshape the corporate culture. The organization's leadership heralded this change by repeatedly telling employees that the company should no longer be seen as a "family" but rather as a "team". The implication, of course, was that family members were wedded to each other through powerful and unshakable emotional and psychological obligations, whereas team members would support each other only so long as there were mutual benefits from the arrangement. In the end, individual and team performance would determine the nature and longevity of the relationships. The family to team metaphor used by this company nicely illustrates the change in the implicit psychological contract between company and employee that several researchers have argued marks the current era (King, 1998; Cappelli et. al., 1997). The

new relationship is no longer based on a sense of mutual loyalty and trust but becomes more instrumental and calculating. As one employee we interviewed remarked, “if I’m just a number to them, then they’re just a paycheck to me.”

The corporate culture changed in other ways. There was now less tolerance of free riders and those who did not pull their weight as “lean” processes tightened standards and expectations. Paradoxically, as the culture changed from family to team, supervision became less hierarchical and more sensitive to employee input. The workplace also became more diverse as women in particular began to occupy more management positions. And as was the case with several other large corporations, the company under study had its share of executive scandals and malfeasance, and subsequent changes in top management. Although, for reasons of space and to avoid the identification of the company, we cannot go into detail on the economic and financial performance of the company, we can report that company sales and profits rebounded by the time of our wave 4 survey and that the stock reached record levels in 2005 after going through troubling times in the previous decade. The company and division were now seen as “winners” in the global market place, with a reasonably secure future over the next decade.

We provide this thumbnail sketch of the company to indicate that the challenges it faced and the policies it pursued are shared with many other large corporations. Similar to other organizations, this company experienced a variety of changes, often simultaneously, that were perceived as being both positive and negative. Even the same event (e.g., a downsizing wave) was viewed positively by some (e.g., “the poorer workers are laid-off”) and negatively by others (e.g., “I lost my whole department”). Although we do not claim that the attitudes and opinions of our sample are necessarily representative of employees across all large companies in the USA, we believe they provide a window into the thoughts of many American workers as they navigate their way through these turbulent, complex times.

## Method

### *Participants*

Three thousand, seven hundred white and blue-collar workers were initially selected at random, mailed a letter explaining the nature and aims of the study, and asked if they would be willing to participate in a longitudinal study that examined the work attitudes and health and well-being effects stemming from organizational change. Of these 3700 workers, 2279 responded. At Time 2, 1960 of the 2279 workers remained with the company, and 1244 of these employees again responded to the survey; 198 left the company before the third survey wave, and of the remaining 1046, 773 replied. In 2005, 525 of the remaining 728 provided usable data. Table 1 displays the response rate history over the course of the 10 years.

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Insert Table 1 about here

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Comparison of this final sample of 525 workers to company records data reveals that the sample was similar in terms of gender (80% male in sample, 80% male in company). In terms of representation by company paycodes, the sample was underrepresented by hourly workers (company percentages in parentheses): hourly 33.1% (50%), engineers 16.8% (13%), management 12.8% (10%), secretarial, technical, professional and administrative 37.4% (27%). Approximately 87% of the sample had received some type of post-high school education with 45.6% of the sample achieving a four- year college degree. The mean age of the employees at Wave 1 was 42.8 (SD = 7.7) years, and they had served an average of 14.8 (SD=7.3) years with the company.

#### *Procedure and Measures*

Data for this paper come from a larger, longitudinal study that examines the effects of organizational change on employee work attitudes, health and well-being. Some six months prior to the dissemination of the first survey, we contacted company representatives, explained the goals of the research, and asked them for employee contact information. We also conducted several dozen individual interviews and focus groups with employees in order to become well-

acquainted with the particular stressors and changes experienced in the organization. Using this information, we constructed a survey containing numerous measures of job attitudes, health, and well-being; some of these measures were constructed specifically for this research while the majority came from the literature. In this paper, we report on those measures for which we had complete data across the four waves of data collection, selecting scales from the areas of job attitudes, organizational attitudes, work and family measures, and indices of well-being. A summary of all measures may be found in Table 2.

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Insert Table 2 about here

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As mentioned above, we randomly selected 3700 white and blue collar workers and contacted them with a letter sent to their home. The letter clarified the nature and aims of the research, explained the researcher's independence from the company, and assured respondents that their responses would remain confidential. Respondents were paid \$20 (Waves 1 and 2) or \$35 (Waves 3 and 4) for their participation. Subsequent survey administrations followed a similar procedure; however, before the second, third, and fourth survey administrations, we contacted company officials to secure up-to-date contact information for those who had participated previously. We also made a number of changes to the survey (i.e., adding and deleting measures in an effort to query respondents on those issues of greatest relevance) and made available executive summaries of our previous survey findings to any interested managers or workers.

## Results and Discussion

### *Analytic Strategy*

To examine the over-time changes in means across the four waves of data collection, we computed a series of repeated measures analyses of covariance. Next, for each variable that showed a significant change, we performed paired comparisons between all time periods, but

were particularly interested in examining two types of comparisons. First, as compared to Time 1, we examined whether or not the mean values at Times 2 or 3 showed an increase, in the case of “negative” measures such as depression, or decrease, in the case of “positive” measures such as organizational support. (Recall that the extensive layoffs and most turbulent period for the company occurred during these survey administrations). Second, we looked to see whether or not the values obtained at Time 4 – the time during which the company was once again financially successful and the threat of job loss was quite minimal – were significantly different from those initial values reported at Time 1. Although cautious of accepting the null hypothesis as evidence of “no difference”, we would tentatively conclude that failure to find a difference between Times 1 and 4 could be taken as support for the position that surviving employees have shown some recovery following any negative effects. Adjusted means and results from the paired comparisons, along with p-values for those analyses where we examine lack of difference, are presented in Table 3.

**Because the age profile of our cohort is relatively old at Time 1 (42.8), interpretations of any changes in attitudes or well being could very plausibly be linked to the graying of an already old group of employees rather than to the workplace changes that were occurring during the decade of our study. To try and disentangle environmental changes from those associated with the graying of the sample, we will also present overtime data for four age subgroups at Wave 1: under 30; 31-40; 41-50; and those over 51. We will thus be able to examine whether attitude changes were in the same direction, or magnitude for these four subgroups or if older employees responded differently than younger ones. This could go or be amended.**

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Insert Table 3 about here

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*Mean Changes by Variable Category*

*Job Attitudes.* The pattern of means for the job attitude variables show a clear trend: For all variables, we see a significant change at either Wave 2, Wave 3, or both Waves 2 and 3, as compared to Wave 1. The direction of the change is uniformly negative. Respondents report more role ambiguity, less job satisfaction, less job involvement, less job security, and more intent to quit (SHOULD THIS BE IN ORG. SECTION AS PAT SUGGESTS?)—Changes that are all consistent with descriptions of an organization in the midst of much change and turmoil, with wave 2 and 3 dominated by two waves of mass layoffs. Respondents also report, however, less job challenge, less role overload, and less job stress during Waves 2 or 3—suggesting a period with fewer work demands, probably in response to weaker sales and to the internal reorganization of work processes. At Wave 4, however, all variables, save job involvement, have returned to levels that are not significantly different from the values reported at Wave 1. Only job involvement shows a drop at the second and third time periods that fails to return by the time of Wave 4.

*Organizational attitudes.* With a few exceptions, organizational attitudes demonstrate a similar pattern to job attitudes. For the two measures of trust in top management (management integrity and management competence), we see the same significant drop at Waves 2 and 3 with a return to values reported at Wave 4 that are not significantly different from the values obtained at Wave 1. In the case of organizational support and organizational commitment, respondents also report decreases at Times 2 and 3; however, for the former variable, Time 4 levels actually surpass those at Time 1 while in the latter case, Time 4 levels fail to return to those obtained at Time 1. Layoff justice shows relatively little change; it is only the comparison between Times 3 and 4 that reaches a level of significant difference.

*Work, family and other non work activities.* The three variables in this category (i.e., work to family conflict, family to work conflict, and greater focus on family, friends and leisure activities) all “pit” the domains of work and nonwork against each other. In this sense, they shed light on the relative importance of each arena and, particularly in the case of the work focus

variable, the degree to which one is engaged in his/her work relative to the family and other nonwork-related activities. , Although the drops in work to family and family to work conflict may seem counterintuitive – indeed, as work becomes more tumultuous, one could posit some negative “spillover” between the domains of work and family – they are consistent with the lower work demands interpretation offered above to explain the declines in the job challenge and stress variables at Times 2 and 3. The fact that they are still lower at Time 4 than at Time 1 might also suggest that workers have managed to better segregate the two domains or that they have reappraised the relative importance of the two in their lives such that they feel less need to trade off one against the other. This interpretation is supported by examining the pattern of means of the job involvement and organizational commitment variables alongside those of the work versus nonwork focus variable. What we find is that as workers become less engaged in their work and less committed to their organization they begin to report that they invest more of their time and allegiance on friends, family, and leisure activities. This shift endures even at Time 4 when the company has recovered and the organization seems to be in a more tranquil state. Thus, although several of the job attitude, and to a lesser extent, organizational attitude variables reflect that workers regain their sense of security, satisfaction, and so on, the ten year roller coaster experience does seem to have significantly lowered their commitment to their work life relative to other life domains.

*Mental and Physical Health.* The three variables in this category present a somewhat mixed picture. On the one hand, relative to Time 1, reported health problems show an increase at Time 3 that remains at that level at Time 4. However, depression and mastery values are most positive at Time 4, significantly so as compared to Time 1 in the case of mastery. (For both variables, Times 2 and 3 are not significantly different from Time 1, but they are different relative to Time 4.) The data on health symptoms are consistent with two related interpretations: first, that it might take some time for symptoms of poor health to manifest themselves; second, that there may be some cumulative impact of going through repeated difficult work events. Surviving and

getting through the storm, however, is associated with less depression and slightly higher levels of mastery, suggesting some degree of psychological recovery and perhaps strengthened confidence in one's abilities to cope with uncertainty and change.

**Although there are too many permutations to report all the possible sub group analyses we conducted, we will briefly report on some of those that showed differences that might interest researchers and practitioners in the area of work and organizations.**

**However, we first note that for nearly all variables and all subgroups the overall pattern of responses was largely identical to that described above. That is, there was noticeable deterioration in attitudes and well being at Time 2 and 3 followed by recovery at Time 4. As expected, the trend line for workers who had received a "warn" notice during this period.**

**(GUYS: THINGS CAN GET PRETTY COMPLEX IF I BEGIN TO DESCRIBE SOME OF THE INDIVIDUAL RESULTS. E.G. TREND LINES CAN BE SIMILAR FOR SUBGROUP AND WHOLE SAMPLE BUT STARTING HIGHER OR LOWER AND THEN THE TWO TREND LINES PARALLEL EACH OTHER OVER THE 4 TIMES. OR THERE CAN BE VARIATION WITHIN THE TREND LINES-WOMEN MAY START WITH HIGHER JOB INV., DROP LOWER AT T2, BUT RISE HIGHER AT T4. IF I INCLUDE IT MIGHT CLOUD THE OVERALL PICTURE. STILL READERS MIGHT REASONABLY ASK; WERE THINGS DIFF. FOR WOMEN, OLDER WORKERS, THOSE WARNED. WHAT DO YOU GUYS ADVISE? SHOULD I JUST ADD OR DROP ALL TALK OF SUBGROUP ANALYSIS?)**

#### Conclusion

The workers in our longitudinal sample lived through a difficult and turbulent ten years of change. They were among the survivors who witnessed the layoffs of thousands of their work colleagues. They adapted to a radically different way to organize the work process and endured numerous changes in top management and in management directives and programs. These

multiple changes created anxiety and uncertainty among them and as we saw produced deterioration in many of their attitudes to their work and to the organization. But at Time 4 there was a noticeable rebound. Most of their views about their work and the organization recovered to Time 1 levels. The rebound in attitudes at Time 4 coincided with the spectacular upturn in the economic fortunes of the company and a modest expansion of the labor force. The sense of uncertainty diminished as job security and intentions to quit improved. But, as we have pointed out, the rebound in economic performance coincided with, and perhaps was even linked to, the new work processes and more relational and less hierarchical management styles that were adopted or became established by the Time 4 survey. Work was now seen as more challenging and satisfying, the organization was seen as more supportive of workers, and management was viewed as more competent and as having more integrity. Although we cannot disentangle the relative contributions of the economic recovery of the company and the new work processes and management style to the rebound in work attitudes at Time 4 changes in this paper, we do believe, based on our qualitative interviews, that each played some role in the rebound. (IS THIS ENOUGH? CAN SAY MORE? WOULD SOME QUOTES HELP?)

But some attitudes and orientations did not return to Time 1 levels. Workers never quite regained the levels of job involvement or organizational commitment they had at Time 1, although the trend was in that direction. Of special interest is the apparent shift in these workers relative engagement with their work as compared to other life domains. The shift to increased devotion to their family, friends and leisure activities occurs at Time 2 and continues through Time 3 and 4. Does this portend a reappraisal of values, and an enduring shift in their commitment away from work? Although we are wary of over-interpreting this result, we think it raises interesting questions in relation to the ideas of certain commentators who speculate about how the changes in work and organizations are reshaping personal values and character. Richard Sennett, in a recent book on the personal consequences of work in the new economy (1998), argues that many of the

workplace changes currently underway corrode trust, loyalty and mutual commitment. The reigning principle becomes “no long term” and this makes durable commitments more risky and tenuous. As we saw, involvement in one’s job and commitment to the organization are the two work-related attitudes that never recover to their previous levels. And when work is pitted against other important activities, many workers express stronger commitments to their families and friends and to leisure pursuits. Sennett suggests that the corrosive effects of this short termism will not only affect the employment relationship, but that it will change our character and thus spillover to other domains such that familial relations and friendships will also become harder to sustain. We do not have the data to fully address this contention. However, we see no evidence in our limited data to support this spillover view. Nor do we see support for Hochschild’s (199 ) contention that the harried home lives of modern families results in increasing numbers of workers viewing work as a haven from the stresses of the workplace rather than the more traditional view of seeing home as a haven from the stresses of work. Workers overwhelmingly continue to see home as the haven throughout the ten years of the study.

#### DISCUSS AGE RESULTS

We are aware that this company may differ from other large global corporations. Its turnaround was quite remarkable, partly based on its actions but perhaps also partly on some fortuitous circumstances. We do not know if employee reactions would have rebounded as well if the company had experienced only a marginal turnabout or continued to struggle (e.g. as is the case with Ford Motor). It is also the case that our results come from a survivor sample and don’t include the experiences of those who were laid off or left the company over the decade. Moreover, there are aspects of the competitive and cyclical nature of the industry that tend to give credence to the economic rationale the company gives for layoffs that may not exist in other industries. So, although the layoffs were unpopular and caused much insecurity and anxiety, they were accepted as necessary by most workers. Despite these caveats, there is evidence that

employees are resilient in the face of difficult changes, even as they endure some damage to their sense of well being. However, there are signs that the new psychological contract—the movement from “family to team—can cut both ways”. Employees can physically quit the team, as some of the more valued employees with in-demand skills did in this company during the downsizing waves, or they can begin to withhold some of their emotional engagement with work and shift some of their commitment to their nonwork lives. It is one of the benefits of such a longitudinal panel design that enables attitudes and orientations to be tracked overtime

Happily, we do see the return of many variables. Need to be cautious about accepting the null, but we do report the p-values and see that many are not even close to .05. Further, the sample size is large and statistical power isn't a problem.

1. That said, we see that employees are not “the same.” Although job and organizational attitudes are, for the most part, not different between times 1 and 4, we see changes in the family to work and health measures that suggest
  - a. employees do not “drop” their family and leisure activities once work is better.
  - b. Health is a bit mixed – have more health problems (which could be a function of the aging sample even though we controlled for age in our analyses), but depression is at an all time low and mastery is at an all time high. Could be more mentally resilient although health lags behind.
  
2. Other reminders: generalizability concerns
  - a. This is a surviving sample. It looks like these folks weather the storm fairly well, but it doesn't speak to the experiences of those who have left the company.
  - b. This trend may also be unique to this industry.
  - c. Need to keep in mind that this company enjoyed a fairly remarkable turnaround, due in part to their decision making and employment practices, but also due,

perhaps, to some luck. Don't know if we would see the same type of reactions by employees if the company had only a marginal turnabout or if they basically only kept themselves afloat.

3. In terms of effects to performance, we cannot say.
4. We don't want these means to be interpreted as "companies can do whatever they want – employees bounce back after awhile." Why?
  - a. There may be some things that companies could do – not done here – that would be so egregious that employees wouldn't bounce back. Even though unpopular, the mass layoffs, for example, seemed to be reasonably well-understood and accepted in the aftermath of 9/11. The industry was clearly affected.
  - b. We don't know what effect it had on performance
  - c. Interviews with surviving employees – many noted that much of the talent had left the company during the turbulent times.
  - d. That all being said, we do have evidence that employees are resilient. They also seem to be putting their emotional energies in arenas not related to work. This could lead to overall better mental health – and subsequent better performance with the company. It might also be associated with a less engaged, less dedicated employee. The concept of working for a team rather than a family works both ways. Employees can quit the team.
5. Reiterate the strengths of our study: one of the few longitudinal designs that has systematically tracked a large group of surviving employees' attitudes and measures of well-being throughout the course of a turbulent time in an organization.

Table 1

*Sample Sizes and Response Rate History*

Time	Left Company Since Previous Survey	Mailed Survey	Responded	Response Rate
Wave 1 (1997)	NA	3700	2279	62%
Wave 2 (2000)	319	1960	1244	63%
Wave 3 (2003)	198	1046	773	74%
Wave 4 (2005)	45 <sup>a</sup>	728	525	72%

*Note.* <sup>a</sup> Due to difficulties associated with company records, the number of employees leaving the company between the third and fourth waves is estimated.

Table 2

*Description of the Measures*

Variable	Description of Construct	Number of Items	Alpha Range <sup>a</sup>	Source
<u>Job Attitudes</u>				
Job challenge	Degree to which one uses one's special skills and abilities on the job	(3)	.68-.74	Camman et al. (1983)
Role overload	Enough time to complete work; fairness of amount of work, too much to do	(3)	.74-.77	Camman et al. (1983)
Role ambiguity	Clarity of job objectives, clarity of expectations others have for one's work	(4)	.88-.90	Caplan et al. (1980)
Job stress	Degree to which one feels tense, pressured, hassled on the job	(6)	.81-.82	Stanton et al (2001)
Job satisfaction	Overall job satisfaction, degree to which one likes working at that org.	(3)	.86-.89	Cammann et al (1983)
Job involvement	Degree to which one thinks about job, personally invested in work	(8)	.69-.73	Lodahl & Kejnar (1965)
Job security	Past/present worry about job security, confidence in future employment	(3)	.81-.84	Armstrong-Stassen (1993)
Intent to quit	Likelihood that one will seek employment elsewhere/ thinks of quitting	(3)	.79-.84	Cammann et al (1983)
<u>Organizational Attitudes</u>				
Layoff justice	Fairness of selection and procedure of most recent round of layoffs	(2)	.56-.70	written for this study
Organizational commitment	Loyalty to company, desire to work for that company over other job offers	(3)	.72-.77	Lincoln & Kalleberg (1990)
Organizational support	Perception that company cares about worker's well-being, notices worker	(4)	.88-.90	Eisenberger et al (1986)
Trust mgmt integrity	Degree to which top mgmt is believable, trustworthy	(4)	.79-.84	Kirkpatrick & Locke (1996)
Trust mgmt competence	Effectiveness, knowledge of work, quality of decisions by top mgmt	(5)	.87-.91	Dunham et al (1994)

Table 2 (cont.)

Variable	Description of Construct	Number of Items	Alpha Range <sup>a</sup>	Source
<u>Family and Work</u>				
Work to family Conflict	interference of work time and responsibilities with family	(2)	.81-.83	Frone et al (1992)
Family to work conflict	interference of family time and responsibilities with work	(2)	.69-.77	Frone et al (1992)
Family focus	Degree to which one has become more devoted to family/ friends over work-related duties in the past 2 years	(7)	.66-.74	Written for this study
<u>Mental and Physical Health</u>				
Health problems	In past year, experience headache, back-pain, heart problems, ulcers etc.	(6)	43-.46	Modified from Moos et al (1986) and Quinn & Staines (1977)
Depression	In past week, number of days one felt sad, lonely, couldn't get going	(7)	.87-.91	Mirowsky & Ross (1989)
Mastery	degree of control one believes one has in dealing with life, controlling life outcomes, solving problems	(7)	.82-.86	Pearlin & Schooler (1978)

*Note.* In all cases, scales have been scored such that higher total scores reflect greater levels of the named construct. With the exception of the health problems measure which used a dichotomous *yes or no* response format, all scales used a 3, 4, or 5 point Likert-type response format. Alpha for the health problems scale is low due to the heterogeneous content of the specific health concerns. <sup>a</sup> Refers to the range of alphas obtained across the four separate survey administrations.

Table 3

*Adjusted Scale Means<sup>a</sup> Across the Four Survey Administrations and Results of the Paired Comparisons*

Variable	Possible Scale Range	Wave 1 (1997)	Wave 2 (2000)	Wave 3 (2003)	Wave 4 (2005)	After W1, sig. < or > at W2 or W3?	Sig. diff. btwn W1 and W4?	Other sig. differences?
<u>Job Attitudes</u>								
Job challenge	(3-15)	10.17	10.11	9.90	10.38	yes, at W3	no (p = .08)	
Role overload	(3-15)	9.39	8.88	9.30	9.36	yes, at W2	no (p = .78)	
Role ambiguity	(4-20)	8.27	8.43	8.65	8.36	yes, at W3	no (p = .57)	
Job stress	(0-18)	10.85	10.10	10.45	10.58	yes, at W2	no (p = .34)	
Job satisfaction	(3-15)	11.36	10.58	10.29	11.26	yes, at W2 and W3	no (p = .37)	
Job involvement	(8-40)	22.88	21.60	21.72	22.13	yes, at W2 and W3	yes (p = .000)	
Job security	(3-12)	8.74	7.60	6.26	8.56	yes, at W2 and W3	no (p = .14)	
Intent to quit	(3-15)	6.42	7.54	7.67	6.32	yes, at W2 and W3	no (p = .54)	
<u>Organizational Attitudes</u>								
Layoff justice	(2-8)	5.77	5.70	5.66	5.84	no	no (p = .31)	W3 sig. from W4
Organizational commitment	(3-15)	10.05	8.87	8.55	9.71	yes, at W2 and W3	yes (p = .003)	
Organizational support	(4-20)	10.29	9.49	9.24	10.73	yes, at W2 and W3	yes (p = .003)	
Management integrity	(4-20)	10.34	8.95	8.82	10.15	yes, at W2 and W3	no (p = .21)	
Management competence	(5-25)	13.49	11.58	12.06	13.56	yes, at W2 and W3	no (p = .77)	

Table 3 (cont.)

Variable	Possible Scale Range	Wave 1 (1997)	Wave 2 (2000)	Wave 3 (2003)	Wave 4 (2005)	After W1, sig. < or > at W2 or W3?	Sig. diff. btwn W1 and W4?	Other sig. differences?
<u>Family and Work</u>								
Work to family conflict	(2-8)	4.87	4.43	4.50	4.44	yes, at W2 and W3	yes (p = .000)	
Family to work conflict	(2-8)	3.39	3.14	3.20	3.22	yes, at W2 and W3	yes (p = .001)	
Family focus	(0-7)	2.77	3.80	3.82	3.67	yes, at W2 and W3	yes (p = .000)	
<u>Mental and Physical Health</u>								
Health problems	(0-6)	1.78	1.86	2.16	2.11	yes, at W3	yes (p = .000)	
Depression	(0-49)	7.24	7.32	7.94	6.41	no	no (p = .051)	W2, W3 sig from W4
Mastery	(5-35)	26.18	26.37	26.08	26.80	no	yes (p = .005)	W2, W3 sig from W4

Note: <sup>a</sup> All means are adjusted for age.

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<sup>1</sup> Some of these issues are covered in our other work (Grunberg, Greenberg, and Anderson-Connolly; Anderson-Connolly, Grunberg,

<sup>2</sup> Due to agreements with the company we cannot provide more specific or detailed information about its operations.