

Employment Security at DEC:
Sustaining Values Amid
Environmental Change

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In the 1960s and 1970s, a number of highly visible firms gained a reputation for innovative and progressive employment security policies by departing from the standard practice of reducing their workforces through layoffs in response to demand fluctuations. Instead, these firms adopted an implicit or explicit commitment to employment security (Dyer, Foltman, and Milkovich, 1985; Foulkes, 1985; McKersie, Greenhalgh, and Gilkey, 1985). Some attributed the choice of these policies to the strong values of their founders or chief executives (Foulkes, 1980; 1985). Others suggested that these policies were well matched to their firm's strategic needs given their rapid growth (Kochan and Barocci, 1985; Dyer, Foltman, and Milkovich, 1985). Undoubtedly both values and strategic factors played important roles in sustaining commitments to employment continuity.

In recent years many firms are again reexamining their policies toward employment security in light of two conflicting sets of pressures. On the one hand changing technologies, shortening product life cycles, and increased consumer sensitivity to product quality all are placing a premium on human resource policies that can achieve high levels of employee motivation, commitment, and flexibility--attributes that are normally seen as byproducts of an employment security policy. On the other hand enhanced cost competition, changing skill requirements, and the maturing of markets that had been expanding rapidly all lead to pressures to cut staffing levels. It is not surprising, therefore, that in recent years a number of firms (e.g. Polaroid, Eastman Kodak, AT&T) have abandoned their employment security policies and

resorted to layoffs. This suggests commitments to maintaining employment security are more desirable in today's environment but also more difficult to meet than in the past.

This paper uses a case study of Digital Equipment Corporation (DEC) to explore strategies for responding to these conflicting pressures. Specifically, we describe the values and business strategies that supported DEC's commitment to employment security during its years of rapid growth in the 1960s and 1970s. Then we describe how DEC moved through a "Transition Process" in the early 1980s when its market environment had changed dramatically, by downsizing and redeploying its workforce without laying off regular employees. Finally, we draw out the managerial and public policy implications of this experience. We highlight a set of human resource policy changes that will be needed if a commitment to employment security is to be successfully maintained in the more rapidly changing market and technological environments that characterize most firms today.

I. THEORETICAL PERSPECTIVES ON EMPLOYMENT SECURITY

An organization's employment security policies can be placed somewhere on a continuum. At one end of the continuum are organizations that guarantee no layoffs to some or all employees. At the other extreme are firms that hire and discharge workers immediately and in direct proportion to fluctuations in product or service demand. Most firms fall somewhere between these two extremes. Our interest here is in organizations that attempt to achieve employment security by avoiding layoffs of employees in response to cyclical or structural changes in product demand.

Although there is wide variation in practice, as yet there are no empirically grounded theories of what determines an organization's choice of an employment security or any other single human resource policy. Instead three different propositions for explaining why an organization might commit to an employment security policy have been put forward by researchers from different analytical perspectives.

Human resource management researchers who emphasize the importance of organizational culture focus on the personal values of founders and key executives (Deal and Kennedy, 1982; Schein, 1983). Clearly, such values serve as a necessary condition for initiating and maintaining employee commitment during organizational innovation. Dyer et. al. (1985) reinforce this interpretation in their examination of companies that follow employment security policies by noting that in none of the organizations studied could data or analysis be found that evaluated the costs versus the benefits of the policy. Instead commitment to the policy could be traced to the values of the founder (or some other top executive), its perceived contribution to early organizational successes, and its gradual institutionalization in the organization's personnel policies. Yet a logical question arises: What other factors, besides personal values, lead some top executives to favor employment security policies?

Those who take a strategic perspective to the study of human resource policies answer this question by examining how employment security fits with the competitive strategies of the firm. The basic proposition that emerges out of this literature is that firms in market environments that are rapidly growing are more likely to emphasize employment security policies since high commitment and low turnover are consistent with a business strategy that emphasizes the ability to get products to the market quickly and thereby to

increase market share and enhance organizational growth. Thus, organizations in early stages of their organizational and/or product life cycles are more likely to initiate and maintain commitment to an employment security policy than are firms in more mature markets (Kochan and Barocci, 1985; Fombrun, Tichy, and DeVanna, 1984; Schuler and Jackson, 1987). Kochan and Barocci (1985) have further argued that in rapidly growing organizations the pressures to meet expanding market demands can lead to staffing practices that are unsustainable if and when market conditions change and cost competition becomes a more important strategic concern to the firm. How, then, can employment security be sustained in mature markets?

A third perspective on employment security policies is derived from the growing literature on internal labor markets (Osterman, 1984; 1988; Jacoby, 1985). This perspective argues that employment security policies cannot be viewed in isolation but rather are part of a larger bundle of human resource policies that fit together to form a coherent package. While these policies are to some extent constrained by their economic, technological, and political environments, firms are seen as having a range of discretion in choosing their preferred strategy. It should be possible to adapt an employment security policy to different competitive environments if other human resource and related management strategies and policies are adapted as well. However, such adaptations will be difficult and will require the sustaining power of organizational values if they are to succeed. Thus, it is only the combination of organizational values and strategic adjustments that can provide the impetus necessary to sustain employment security amid a changing environment.

II. EMPLOYMENT SECURITY AT DEC

The evolution of employment security policies at DEC can be understood in the context of each of the three foregoing perspectives. Employees at DEC frequently refer to employment security as an important manifestation of "DEC values". It was apparent from our interviews that the initial commitment of the firm to employment security derived from the values of its founder, Kenneth Olsen, and that the company's culture places a substantial premium on maintaining that commitment. Over the years, as the policy was reaffirmed whenever temporary volume swings raised the issue of workforce reduction, employment security became a fundamental decision premise at DEC, a starting point for deliberations rather than a policy whose merits were continually debated.

Although the policy had its roots in the founder's beliefs, other factors were clearly at work. Through the 1970s and early 1980s, DEC was a rapidly growing firm and its manufacturing strategy stressed the imperative of high volume production capable of meeting strong customer demand. Plant managers would staff for peak volume periods, negotiating frequently with headquarters for production assignments that would maximize capacity utilization. Corporate manufacturing staff would, in turn, allow production load to be moved to any plant temporarily short of work on its primary products.

New product introductions tended to accelerate staffing growth. About a year before launch, manufacturing would project staffing needs based on peak volume forecasts -- first, the direct labor needed for that volume and second, indirect labor based on past direct/indirect ratios. Design changes and higher volume estimates would boost these projections as the launch date approached.

Widespread hiring would begin. New and existing products would be managed by separate groups to avoid the delays of coordinating the start-up of the former and the phaseout of the latter. To maintain the capacity to absorb surges in demand during start-up, plants would hire temporary and contract workers, generally constituting about 20% of the direct labor workforce and reaching 50% at times.

If a plant did have surplus labor, there were a variety of ways to achieve short-term downsizing. Besides the release of temporary/contract workers, these might include temporary assignments around the plant, temporary transfers to other plants in the area, and stepping up efforts to get poor performers out of the workforce. Indirect labor, in particular, might receive some not-so-subtle pressure to start looking for other jobs at DEC. The best people, with needed skills, often found jobs quickly. Others might have more trouble, but would be kept on payroll until they found something, even if that took a year or more. This informal process generally worked well, particularly because the next surge in volume was usually right around the corner.

The internal labor market perspective also illuminates the company's policy. Employees at DEC appear to be highly committed to the firm and willing to respond in a variety of ways to changing market demands. Interviews with both managers and workers indicate that the company enjoys substantial flexibility in the deployment of its human resources. This flexibility is reflected in a large training budget, loosely-defined job boundaries, and an emphasis on rewarding individual initiative. It is fair to conclude that the firm's commitment to employment security is a crucial element in attaining a flexible set of internal labor market rules.

Changing Circumstances

For each of the reasons outlined above, DEC has maintained a commitment to employment security. This commitment was facilitated because the context in which it operated, with respect to products, markets and technology, provided few challenges to the policy. Gradually, however, a number of factors began to affect staffing requirements long before a headcount problem became apparent.

Technological change. The miniaturization of components allowed new products to achieve the same price/performance ratio with up to 75-80% fewer parts than previous generations of equipment. This dramatically reduced the need for direct labor; from one generation of VAX computers to the next, direct labor hours dropped by 75%. Advances in chip technology and circuit board design required increased use of "clean room" equipment, robots and vision systems. Skill mix requirements changed considerably as some jobs were completely automated and the content of many others modified.

Outsourcing. At the time, DEC was trying to keep products at both high and low ends of the market, and outsourcing was considered essential to the low-cost strategy. Managing these efforts required some additional indirect labor, but clearly reduced the need for direct labor, particularly in the U.S. plants where the most cost-sensitive products were produced.

Manufacturing policy. In an effort to reduce inventory costs, the policy of "build to inventory" that had been critical to "ability to ship" was eliminated, and substantially reduced inventory targets were set. Plants were encouraged to meet their overall cost targets not with increased volume (which reduced unit costs) but by reducing the use of all resources -- space, energy, materials, labor. In addition, the practice of moving load from plant to plant to balance

production (and to keep each plant's workforce busy) was largely discontinued because of its inefficiency. Product groups were consolidated so that most components for a product were produced in the same plant, thus further pinning the fortunes of a plant to a specific product.

The net result of these factors was an increasing pressure to reduce the workforce, without the buffering practices of "building to inventory" and "moving load" that were so critical in supporting employment security during previous downturns. Still, the staffing problem was never addressed systematically until an event occurred that signaled the onset of a broader organizational crisis that galvanized the support needed to act.

The Stock Price Crisis. On Tuesday, October 18, 1983 the news about DEC's worst quarter in its history hit the stock market, and the stock dropped 12% in one day, and another 17% within three weeks. Coming after three bad quarters, and amid signs of a pending industry slump, the plummeting stock was a symbolic watershed for DEC. Long accustomed to continual growth, in which falling volume for one product would be offset by increasing volume for another, DEC abruptly had to face the prospect of widespread volume declines hitting simultaneously. It was this crisis that triggered the response that would eventually become the Transition program.

III. MANAGING THE TRANSITION PROCESS

DEC's response to the overstaffing crisis -- the Transition process-- reveals much about its commitment to employment security and the changes required to maintain that commitment. We will review it here in considerable detail not only because it describes DEC's experience but because we believe this experience highlights the key choices that most firms must make when confronted with similar downsizing requirements. As such DEC's experience serves as a prototype for human resource decision making.

It was eighteen months from the October 1983 stock price decline to the implementation of the Transition Process at the first manufacturing plant. Table 1 provides a chronology of the key events during that period.

----- Insert Table 1 about here -----

There were several key decisions that shaped the incipient "Transition process". Line managers, rather than personnel staff, were given the responsibility of managing Transition at the corporate level. Plant managers, who had considerable autonomy, were the focus of the corporate effort to convince the company that Transition was needed. A hiring freeze and the elimination of all contract and temporary positions were the critical first steps taken to avert layoffs.

Soon thereafter, a cross-functional Transition Task Force was established and developed the primary strategy -- to manage Transition as a decentralized, plant-level process following centralized, corporate-wide guidelines. These guidelines were established to insure that Transition would be implemented fairly, consistently, and in a way that allowed individual employees considerable choice. This approach was consistent with the autonomy that had always been

accorded plant managers, while recognizing that the problem was company-wide and that no individual plant was wholly responsible for the overstaffing predicament in which it found itself.

Plants were given the choice of whether or not to participate in the Transition Process, and were given considerable flexibility to tailor the process to their needs. At the corporate level, financial incentives were used to encourage participation, and to prevent the costs of Transition from weighing most heavily on the plants most needing it. These centralized resources were also used as a counterbalance to those forces at the plant level that supported overstaffing.

Stages of Transition

There were three primary stages to the Transition process: 1) selection and entry into the group of "available" employees; 2) counselling and training; and 3) exit from Transition, through transfer to another job at DEC, or departure from the company. The corporate Transition Task Force faced tough decisions about each stage.

Selection. Selection first required that each plant assess the staffing levels needed for ongoing operations, to determine the number of "available" people. Where a whole work group, or an entire production task was eliminated, all the affected employees would become "available". In the more common case where fewer people were needed to perform a particular task, selection was based on ranking employees, first by their most recent performance rating and, in the case of ties, by their seniority.

The decision to make performance rather than seniority the primary criterion was a controversial one. Although DEC is not unionized, many of its

manufacturing employees had previous experience in unionized facilities. Indeed, many DEC plants used seniority as the basis for job transfer. While the Task Force stuck to its position, in the end seniority played a significant role, since there were many ties in the merit ranking.

Training/Counseling. The Task Force developed a two-week program of training and counselling for Transition employees, to help them with the shock of being declared "available" and to teach them practical career development skills. The managers of "available" employees also attended a mandatory week of training, focused on their responsibility in supporting employee job search efforts. A limited retraining program also accompanied Transition. Although Task Force members believed that a broad reskilling effort would be crucial to sustain employment security in the new environment, they were reluctant to slow down the Transition process by attempting to launch another complex, resource-intensive program. As a result, retraining was allowed only when a person had applied and been accepted for a new job within DEC that required additional skills.

Exit from Transition. The two primary means of exit from Transition were reassignment to another job within DEC and outplacement to another company. For indirect employees, reassignment to "comparable jobs" at different DEC locations was the main emphasis. Direct employees were more likely to be reassigned within the plant or placed in a pool for temporary assignment to special projects in the plant and the community.

One tool used in the reassignment effort was a computerized job and skill matching system, containing the resumes of all "available" people and all open job requisitions. This was of limited usefulness, because many managers were reluctant to put their "available" people on the system, preferring to work

through their own informal channels to help them get jobs. Despite efforts by the Task Force to tie Transition incentives to use of the jobs system, this technological approach to reassignment continued to be bypassed in favor of the network of informal contacts among managers.

A "comparable job" could be any job involving similar skills and responsibilities whose salary was at least 80% of the midpoint salary level of the employee's old job. It could require relocation or a longer commute, be on a different shift, or involve training. "Available" indirect employees could reject one "comparable job" offer involving relocation, but a second rejection could result in termination. Employees unwilling to relocate were required to take any "comparable job" within commuting distance. DEC also assisted employees in finding outplacements at other companies, particularly for those who were unwilling to relocate.

The special option of a voluntary separation program was provided to three plants in the Southwest hit heavily by volume reductions, because both relocation and outplacement were felt to be inadequate to deal with the surplus of direct labor employees. This separation program provided a large severance payment to any employee -- not just "available" employees -- in these plants leaving DEC before a certain date. In order to receive these payments employees were required to have found an external job.

IV. THE RESULTS OF TRANSITION

Thus far we have described the Transition process. While the Transition process was adopted in the manufacturing, engineering, and sales and service organizations, the efforts in manufacturing were by far the most substantial.

Therefore, for the duration of the paper, we focus exclusively on the impact of Transition in manufacturing. In this section, we will first present data about staffing levels in DEC worldwide during the period of Transition. Then we will turn to a more detailed evaluation using personnel data from five manufacturing plants.

AGGREGATE OUTCOMES

Table 2 shows the overall changes in employment levels for manufacturing worldwide and in the U.S. from the period just before the beginning of Transition, June 30, 1984, to June 30, 1986.

A substantial overall headcount reduction was achieved worldwide -- a total of 5,598 employees left employment, including Transition and non-Transition reductions. Of this total reduction 1,648 (or 29%) were temporary or contract employees and 3,950 (or 71%) were regular employees. Reductions were achieved in both the direct and indirect labor categories. However, the ratio of indirect to direct employees did increase over the period, moving from 1.8:1 in 1984 to 2.0:1 in 1986.

Comparable figures for the United States are available for 1985-86. These data show substantial decreases in regular employment, both direct and indirect, but an increase in employment of temporary and contract employees. The ratio of indirect to direct employees remained identical in 1985 and 1986, standing at 2.40:1 in both years.

The foregoing discussion focuses on overall headcount reduction. Much of the activity recorded in these tables involved people who were not formally enrolled in Transition. However, Transition should receive a measure of credit for the overall headcount reduction since it did reduce hiring throughout the

entire organization and also affected the overall climate of the firm. There is some evidence that considerable informal activity in both outplacement and reassignment was triggered by the formal Transition process. In addition, many people in Transition shifted employment without leaving DEC.

Table 3 provides some summary measures for Transition. Formal participants in Transition numbered 2,606 people. As of June 1986, 41% of this number had left the firm, 39% had transferred within the company, and 20% were still in the Transition program, either in "bull-pen" status or in some other phase of the effort.

With these summary data in hand, we now turn to a more textured analysis of the Transition experience using personnel data from several plants.

STATISTICAL PROFILE OF THE TRANSITION PROCESS

In this section, we ask about who was selected for Transition, the outcomes for these individuals, and how effectively Transition led to a restructuring of the human resource profile of the firm. Our data are drawn from the DEC personnel data base for five plants. The data begin at the end of the fiscal year 1984 and continue through the end of the fiscal year 1986. When we speak of Transition participants, we refer to people who at some time during that period were selected for Transition; the non-Transition participants are those who were never selected. This sample of five plants includes 1,518 Transition participants -- well over half of the total Transition population. Our analysis focuses on aggregate data for all five plants.

Selection

The selection process was heavily oriented towards direct labor. Nearly

two thirds of all Transition participants (63.8%) were drawn from direct labor despite the fact that this group constituted less than half of all non-Transition participants (42%). (For the sample as a whole direct labor constituted 48.7%). Because the characteristics of direct and indirect labor are likely to be quite different, throughout the rest of the analysis we always look at the two groups separately.

We found no significant differences in the age and racial characteristics of the participants compared to those not selected. The data do suggest that women were selected more frequently than men and the reasons for this remain unclear. It was also the case that tenure in the company was important, with the more recently hired selected more often than warranted by their distribution in the population. At the same time it is also clear that tenure was not the only decision rule since a substantial number of employees with considerable tenure were selected into Transition despite the availability of large numbers of junior employees who were not selected.

Outcomes

What were the nature and consequences of the Transition process? We are interested here in the degree to which certain company outcomes were achieved and in how Transition participants fared in terms of career outcomes.

In Table 4 we classify the outcomes into several categories. Transition participants either left the firm; moved to a new location; or stayed at the same location. Whether they changed location or not, some participants exiting Transition took new jobs while others retained their old jobs. Finally, some participants were still involved in the Transition process in June 1986, the endpoint of our data collection.

Leavers. Overall, 32.5% of those in Transition left the firm. 35% of direct labor employees (DL) were "leavers", as were 28% of indirect labor employees (IL). The Southwest plants, for which the special voluntary separation programs were established, had the highest percentage of "leavers".

New Location. 14.7% of Transition participants moved to new plants. Direct labor was less likely to move to a new plant than was indirect labor: only 9% of DL shifted sites compared with 24% of IL. This is not surprising given the Transition policy that relocation was a more feasible and realistic option for IL than DL. For both groups, however, moving to a new location was associated with getting a new job, with a far larger proportion of movers changing jobs than remaining in the same one.

Same Location. 29% of Transition participants stayed at the same site-- 34.3% of DL and 19.6% of IL. Of this group, nearly 60%, a surprisingly large fraction returned to the same job code they had prior to Transition. This was presumably due to the restoration of production volume in their old work area, or a move to another part of the plant but in the same job category as before.

Still in Transition. Of this group, 20% were direct labor and 27.5% were indirect labor. While some were selected for Transition just before the close of our sampling period, most had been in the "bullpen" for some time, unable or unwilling to find another job inside or outside the company. 63% of those still in Transition in June 1986 had held that status for 6-12 months, while another 31% had been in Transition for over 12 months. This is in contrast with those participants who had left Transition. Table 5 shows that for the bulk of employees who complete Transition, it is a relatively short process, with nearly two-thirds finishing in six months and only 7.7% in the process for more than a year.

Indirect/Direct Labor Status. IL and DL mobility patterns were strikingly different. While 55% of both direct labor and indirect labor groups either left the company or remained in Transition, a larger fraction of DL left and a larger fraction of IL remained in Transition. Normally, one would expect that indirect labor workers have better opportunities in the external labor market and hence would be more able to leave the firm. However, the data suggest that either this expectation is wrong or the indirect labor group felt less pressure to leave than did direct labor workers.

Comparing Transition and Non-Transition Participants.

In Table 6, the top panel shows quite dramatically that people involved in Transition were far more likely to leave the company than those not involved. This suggests that Transition did in fact help achieve one of its goals-- redeploying employees without actual layoffs. We still want to know, however, the results of Transition efforts to reskill and redeploy employees within the firm.

In the second panel we examine the experience of those Transition participants who stayed at DEC, using the non-Transition group for comparison. We see that for direct labor employees, the Transition group was slightly more mobile. A somewhat higher fraction of Transition DL workers moved to a new site and/or changed jobs, regardless of site, than non-Transition DL workers. In contrast, a substantial majority of IL Transition employees changed location while only 15% of non-Transition IL workers made such a change. However, there is much less difference between the two IL groups with respect to job change with 56% of the Transition employees changing jobs compared with 50% of the non-Transition group. The point is not that IL workers did not change jobs -- over half of both groups did over just a two year period -- but rather

that Transition only marginally affected that process.

For those individuals who did change their job, what was the nature of the shift? In order to answer this question we developed three measures. The first -- called "labor change" -- indicates whether a person switched between the DL and IL categories. The second -- "occupational change" -- measures whether a person moved among the aggregate government occupational categories (these are nine categories such as managerial, technician, craft, operative). The third measure -- termed "job level" -- is based on the salary mid-points of the DEC job classification and characterizes a person as remaining at the same level if the salary of his or her new job is within 10% of the prior job, as moving up if the salary mid-point is 10% or more higher, and having moved down if the salary midpoint is 10% or less. The relevant data are provided in Table 7.

Among direct labor employees, these data suggest that with respect to the labor change and occupational change, there is essentially no difference between the Transition and non-Transition group. In both cases about two-thirds of the groups remain in the previous status. However, a portion of the Transition people appear to have paid a price with respect to pay (and hence presumably the skill level) of their job. This shows up not, as one might expect, as a larger fraction of employees actually moving down--the percentages are the same for the two groups--but rather as a smaller fraction moving up than was true in the non-Transition group. However, keeping in mind that those selected for Transition were frequently the poorer performers the gap is not especially large and may indicate that Transition workers were protected more than one might have expected.

The difference between the Transition and non-Transition participants is

quite a bit more dramatic for the indirect labor employees. Here, for both the first and the third variable, there is strong evidence that indirect employees who changed jobs (and remember, this is a minority of IL workers) were considerably more downward mobile than were non-participants.

This raises again the question noted earlier: did the Transition process tend to select relatively less able IL than DL employees? The smaller differential between Transition and non-Transition employees in rates of change and the worse outcomes for IL employees suggests this may be the case. Additional evidence is that the relationship between selection and company tenure is weaker for indirect than direct labor and this implies that (poor) performance was more of a factor in their selection than it was for direct labor.

Restructuring.

The final step is to determine how the occupational profiles of the plants changed as a result of the Transition process.¹

Table 8 compares the plants before and after Transition. There was a shift in proportion away from direct and towards indirect labor. This is also reflected in the occupational distribution of the two samples. In the period prior to Transition, managers and professionals accounted for 28% of employment while post-Transition they held 31% of all jobs. By the same token, blue collar labor (craft, operative, and laborer) employment declined from

¹. We have already examined this issue partially in the previous section, in considering the occupational and job level changes for Transition vs. non-Transition participants. However, to get a comprehensive "before" and "after" profile of each plant, we added data on new hires and transfers in during the two year period.

48% to 42%. Technicians, whose status is somewhat ambiguous, recorded a gain in employment shares.

The other striking change is the shift in the tenure profile as a result of Transition. Whereas prior to Transition there was a substantial number of recent recruits subsequently, virtually no one in 1986 was employed who had been with the firm less than two years and the total distribution had shifted well towards the most senior members. This kind of shift brings both opportunities and problems. A high tenure work force is more skilled and more committed to the firm. But it may be less flexible, in terms of willingness to be retrained or relocated.

V. DISCUSSION AND IMPLICATIONS

The Transition Process

The Task Force balanced centralized principles with decentralized implementation, thus guaranteeing fair and equitable treatment of "available" employees while honoring the tradition of plant-level autonomy. While not requiring plant participation, it provided incentives for plants to "buy in" to the process, and then gave them the resources for their plant-level efforts and the flexibility to adapt the process. It gained credibility and commitment by assigning primary responsibility for the process to line management, but also provided a clear support role for corporate and plant-level personnel staff.

One dilemma not completely resolved by the Transition experience was how "hard" or "soft" to make the treatment of "available" employees. The Task Force opted for maximizing available options and providing training and counseling to help employees make informed choices. But many employees chose

to stay "in Transition" for long periods of time, unwilling to accept job opportunities involving redeployment or relocation. While some limits were put on an individual's right to turn down job offers, Transition participants faced little formal pressure to exit from the process. However, while some individuals may have taken advantage of this policy, it would have been very difficult to eliminate such behavior without changing the character of Transition for all those involved, thus imperiling the intangible benefits of the process.

Retraining was another problematic area in the Transition process. The retraining program was offered only to "available" employees who had applied and been accepted for a new job requiring additional skills. Expecting this program to be oversubscribed, the Task Force established a limited number of retraining slots. To their surprise, these slots proved difficult to fill. Many employees were unwilling to take the risk of training for a new occupation, even in the face of evidence that their former jobs might be permanently eliminated. For many, past experiences had convinced them that downturns would be brief. Ultimately only 600 employees (23% of Transition participants) undertook retraining.

On the whole, however, the Transition process can be considered a success. The guidelines were very carefully crafted to preserve the respect and dignity of the individuals involved, and to maintain a company culture in which local initiative is encouraged. Difficult "turf" issues across functions and divisions were negotiated and resolved. The employment security policy was not challenged, even under pressures for employment reduction.

Transition Outcomes

The outcome goals for Transition were to reduce staffing without any

layoffs; to move employees internally within DEC via transfers and job changes; to assist "available" employees with internal and external job search and train them in new skills; to restructure staffing patterns in order to reduce the ratio of indirect to direct employees; and to change managerial behaviors and policies that had encouraged overstaffing in the past.

In terms of these goals, Transition must be judged a mixed success. Among its accomplishments were substantial workforce reductions and a significant number of job changes and transfers. Given that Transition participants were selected, in part, because of their low performance ratings, the number of occupational changes and job level increases is impressive, though consistently less than the non-Transition group. Some retraining did occur and appears to have contributed to some positive job outcomes, particularly for the direct labor group. In areas such as engineering, DEC retained valued employees who might otherwise have left the company.

On the other hand, a high percentage of the staffing reduction occurred through the voluntary separation program for regular and contract terminations for temporary and contract employees. Of those participants who stayed at DEC, a high percentage returned to their former jobs, or remained in the "bullpen". A relatively small percentage undertook retraining, and many retraining slots were left unfilled. There was very little evidence of restructuring and the ratio of indirect to direct employees actually worsened. Finally, the effort was undoubtedly very costly in staff time, training and relocation expenses, and the voluntary separation payments.

Measuring the success of Transition is complicated. If the primary goal is seen as reducing employment levels, Transition per se must be judged peripheral to those efforts that brought about the greatest reduction. Even the

contribution of Transition to the flexible redeployment of the workforce during a critical adjustment period was perhaps less than the company might have expected. It does, however, seem likely that the effort to preserve the values underlying DEC's commitment to employment security substantially boosted employee motivation and loyalty during a difficult period, although these benefits are intangible and difficult to substantiate.

What occurred at DEC was, in the broadest sense, a transition from one set of policies supporting employment security to another set, necessitated by a more competitive and uncertain environment. Sustaining the credibility of the employment security policy, during its most severe challenge, was perhaps the foremost goal of Transition planners. To succeed meant, first and foremost, preserving DEC values. This explains the strong emphasis of the Transition Task Force on those aspects of the process concerning individual dignity and choice.

One discovery DEC made was that the provision of employment security did not automatically motivate employees to learn new skills, change jobs, or relocate to the extent demanded by the crisis. The company had always shown its readiness to move load, build inventory, or sustain short-term inefficiencies in order to maintain employment security in the past. Now that these policies have changed, one challenge for DEC will be persuading employees that sustaining employment security requires from them a greater readiness to engage in ongoing training and accept new job assignments. Transition marks the first step in that process, but a vital step, for its reaffirmation of company values will allow the process to continue.

Ultimately, the most significant question is whether DEC will learn from its experiences and avoid the need for another Transition effort in the future.

It is clear that "veterans" of Transition -- those managers who directly experienced the process -- have learned a great deal, and are motivated to change the policies that lead to overstaffing. But at a time when DEC's fortunes have rebounded and employment levels are rising again, it is not clear whether managers without this direct experience have any inclination to change.

The following quotes illustrate both the power and the limited diffusion of the learning that resulted from the Transition Process. One plant manager described Transition as a powerful learning experience:

We used to hire contract people to use our space to capacity, even though we were less productive with more people. Now we don't let the departments use all their floor space. We don't automatically equate "bigness" with "goodness" anymore. And we don't automatically replace people. We look for ways to combine functions. I don't ever want to hire another direct labor person again. That's probably too strong, but before I hire another person, I'd better be convinced that I have a job for that person as long as I'm working here. I don't want to have to go through this process again.

Asked to describe what changed during Transition, an Engineering Product Manager had these thoughts:

I sign all requisitions for new people and I sign them differently now than I used to. I know that we need to have a long term plan for using each person. The mindset has changed about human resource planning. Before, the first thought when people were needed was to go out and hire them or transfer them in from somewhere. Only then would we think of training. Now we reverse this --- train first, transfer if necessary, and as a last resort hire from the outside if the skills aren't available.

However, a Personnel Manager from the same manufacturing group, responding to these remarks, said:

What the Engineering Product Manager does now does not reflect management in general. He has gone through managing Transition and learned from it. He's the leading positive example of what we need to do here, but he's not the norm. In fact, in general, reassignment was an "event". It will be out of the organization's memory in six months. Most senior managers here avoided it, saw

themselves victimized by it and therefore won't learn from it.

Human Resource Strategy

What does the DEC experience tell us about what is required to maintain a commitment to employment security in today's market and technological environment? For the purposes of discussion we assume that the environment facing most firms will be characterized by: (1) variable or uncertain growth prospects--some product lines will be growing rapidly while others are stabilizing or declining; (2) product and process technologies are changing rapidly; (3) cost competition is increasing for both mature and new products, and; (4) product life cycles are shortening. The experiences of DEC suggest the following:

1. Human resource policies that are driven by management pressures to "ship at all costs" are not compatible with employment security since they lead to overstaffing and under-investment in training.

2. "Transition" processes such as the one reviewed here are likely to be recurring phenomena in employment security firms. If DEC's experience generalizes, this implies that firms must be prepared to absorb the costs of implementing workforce reductions slowly, invest in various financial incentives for voluntary severance and early retirement, and absorb the costs associated with this transition strategy as an investment in the commitment and flexibility this policy is expected to achieve. In the long run this will require achieving an agreement among management decision makers on a broader concept of organizational effectiveness that goes beyond traditional short term cost considerations.

3. In the environment outlined above, human resource professionals will

need to be more fully integrated into new product planning and other strategic decision-making processes. The life cycle of the product, its marketing strategy, and the timing of replacement products are all crucial determinants of human resource requirements and must not only be coordinated but also influenced by the organization's long term human resource strategies and capabilities.

4. Training will need to take on a higher priority as an ongoing investment activity. The DEC experience demonstrated clearly the limited ability and/or willingness of the workforce to be retrained in a crisis (i.e. as part of the Transition Process). Yet the prior DEC strategy of hiring first and training only as a last resort must be reversed. What some managers have learned about retraining first and only hiring as a last resort will have to be adopted everywhere. A corporate level commitment to on-going training will be needed to support an employment security policy in this type of environment.

Public Policy Implications

This case raises several salient questions with respect to public policy. On a positive note, it is apparent that DEC succeeded in maintaining employment levels in excess of those that would have been characteristic of a hire/fire firm faced with comparable product market difficulties. This strongly suggests that firm-level employment security policies have desirable macroeconomic consequences and therefore warrant support of national policy makers. The question, then, is how to encourage and diffuse these practices. It is apparent from this case that the costs of undertaking the policy are substantial and that

the gains, while significant, are difficult to identify and quantify. Furthermore, those within most corporations who focus on cost controls are not the same people who receive the benefits. Without some degree of support and encouragement, firms that lack the strong commitment to employment security characteristic of DEC's culture are unlikely to undertake these efforts. The question then is whether public training subsidies can help tip the balance in the firm's calculations. Considerable thought would need to be given to the design of such subsidies. It is certainly the case that these programs would need to be ongoing and not simply emergency responses to crises.

By the same token, the case also makes clear that private efforts to provide employment security cannot suffice as national policy. Even at DEC, a significant number of temporary workers were released into the labor market, as were individuals who accepted the incentive retirement schemes. If these groups have difficulty finding new employment, and especially if they are composed disproportionately of women and minority groups, then it would seem that a strengthened training and employment exchange is appropriate.

What these considerations imply is that employment security efforts by private firms represent useful and powerful tools in more general efforts to reduce insecurity in the labor market. Employment security programs in firms need to be encouraged and supported. The difficult issue is how to diffuse these practices. An important task for future research is to develop models for how public policy can encourage such private action. At the same time, even if these policies were widely adopted, they would not be sufficient and hence continued public programs are necessary.

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Table 1

Key Events and Decisions in the Transition Process

10/83	DEC's stock drops 29%
12/83	Staffing needs for next two fiscal years projected, and problem defined as excess indirect labor. Contingency plan for overstaffing developed, involving sequential process for workforce reduction.
1/84	Responsibility for Transition given to line management rather than human resources function
5/84	Meetings with plant managers to convince them of need for Transition
6/84	Hiring freeze; manufacturing plants advised to release all temporary and contract employees
8/84	Strategy of centralized guidelines and resources, with decentralized implementation developed. No required participation. Plants would "apply" for Transition.
9/84	Transition Task Force established to develop guidelines for selection, training, and exit options, with representatives from manufacturing, engineering, sales and service, human resources.
11/84	Corporate-level financial incentives for participation in Transition established.
12/84	Rapid volume reduction, and a shift of Transition efforts to direct labor group. First manufacturing plant signs up.
2/85	Special voluntary separation option for Southwest plants established.
4/85	First manufacturing plant begins Transition process, 18 months after the stock market crisis.

Table 2

EMPLOYMENT LEVELS FOR DEC MANUFACTURING

	FY84		FY85		FY86	
	<u>Worldwide</u>	<u>US</u>	<u>Worldwide</u>	<u>US</u>	<u>Worldwide</u>	<u>US</u>
Direct	10115	NA	9563	5515	8219	4616
Indirect	18530	NA	18039	13256	16476	11074
Contract/Temp	3353	NA	1154	791	1705	1428
TOTAL	31998	NA	28756	19562	26400	17118

Source: Aggregate data provided by DEC

Table 3
TRANSITION ACTIVITIES -- WORLDWIDE MANUFACTURING
(FY84-FY86)

Left DEC	1086
Transfers in DEC	1020
Still "in Transition" (as of June 30, 1986)	500
Total Participants	2606

Source: Aggregate data provided by DEC

Table 4

TRANSITION OUTCOMES
(Transition Participants Only)

	Direct	Indirect
Same Site		
Same job	20.0%	12.2%
New job	14.3	7.4
New Site		
Same job	2.9	7.1
New job	6.2	17.3
Left Company	35.2	27.7
Still in Transition	<u>20.7</u>	<u>27.5</u>
	100%	100%
n	969	549

Source: Personnel files for five manufacturing plants

Table 5

DISTRIBUTION OF TIME IN TRANSITION

	<u>Completers Only</u>	<u>Still in Transition Only</u>
0-6 months	63.2%	6.3%
6-12 months	28.9	62.8
12-24 months	7.5	31.0
24+ months	0.2	0
n	1167	351

Source: Personnel files for five manufacturing plants

Table 6

OUTCOMES FOR TRANSITION AND NON-TRANSITION EMPLOYEES

("Still in Transition" category excluded from sample)

	<u>Direct Labor</u>		<u>Indirect Labor</u>	
	Transition	Non- Transition	Transition	Non- Transition
I. Stayers and Leavers				
Left	44.7%	17.3%	38.6%	11.6%
Same site				
New Job	18.2	27.2	10.4	33.8
Same Job	25.4	45.0	17.0	40.9
Off Site				
New Job	7.8	8.0	24.1	10.9
Same Job	<u>3.6</u>	<u>2.3</u>	<u>9.9</u>	<u>2.9</u>
	100%	100%	100%	100%
n	769	1453	398	2004
II. Stayers Only				
Same site				
New Job	32.9	32.8	16.9	38.2
Same Job	45.9	54.4	27.6	46.2
New Site				
New Job	14.1	9.6	39.2	12.3
Same Job	<u>6.5</u>	<u>2.7</u>	<u>16.1</u>	<u>3.2</u>
	100%	100%	100%	100%
n	428	1221	246	1754

Source: Personnel files for five manufacturing plants

Table 7
 OUTCOMES OF JOB CHANGE
 (Job Changes Only)

	<u>Direct Labor</u>		<u>Indirect Labor</u>	
	Transition	Non- Transition	Transition	Non- Transition
Status Change				
None	60.5%	57.7%	93.3%	98.4%
DL to IL	39.5	42.3	-	-
IL to DL	-	-	6.7	1.6
Occupation Change				
No Change	61	63.5	52.3	71.5
Change	39	36.5	47.7	28.5
Job Level/Skill Compensation				
Equivalent (+ 10%)	66.8	51.5	49.6	35.3
Up	20.3	35.8	37.6	60.2
Down	12.9	12.7	12.8	4.5
n	205	537	149	927

Source: Personnel files for five manufacturing plants

Table 8

PLANT EMPLOYMENT STRUCTURE BEFORE AND AFTER TRANSITION

	1984	1986
<u>Occupation</u>		
Managers	11.0%	12.5%
Professionals	16.9	18.2
Technicians	13.5	15.6
Clerical	9.0	9.6
Craft	5.9	5.4
Operative	39.8	33.4
Laborer	2.7	2.8
Service	1.1	2.4
<u>Status</u>		
Direct	48.7	40.9
Indirect	51.3	59.1
<u>Company Tenure</u>		
1 year	9.3	0.2
1-2 years	5.2	0.5
2-5 years	25.3	12.2
5-7.5 years	25.8	31.8
7.5-10 years	22.6	26.4
10+ years	11.9	28.8
n	4975	3430

Source: Personnel tapes for five manufacturing plants.

Note: 1986 data excludes those who transferred to another plant or left the company and includes those who were hired or transferred during the period.

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