Saturn, The GM/UAW Partnership: The Impact of Co-Management and Joint Governance on Firm and Local Union Performance¹

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EXECUTIVE SUMMARY

I. OVERVIEW AND KEY FINDINGS

Designed and implemented as a partnership between GM and the UAW, Saturn breaks new ground in firm governance, management and industrial relations. Through detailed study of Saturn's partnership arrangements we have found that the local management and union leaders have not only implemented the contractual joint governance institutions which involve labor in business strategy, product development, supplier and retailer selection, and manufacturing policy, but have also created a system of co-management which gives hundreds of jointly selected union members the responsibilities of operations management. In order to understand the impact of

Funds for this research were provided by the Alfred P. Sloan Foundation, the MIT International Motor Vehicle Research Program, the MIT Leaders for Manufacturing Program, and the National Science Foundation.

the involvement of union members as management, we analyzed the relationship between the behaviors of both represented and non-represented middle managers, the dynamics of their individual union-management partnership relations, differences in their patterns of communication and coordination, and Saturn's quality performance. We also examined each partner's use of time to explore the balancing of social and economic tasks between represented and nonrepresented partners. These data were combined with analyses of the tensions within the union between its traditional role in membership representation, and its new role in management and governance. Finally, we raise questions regarding the learning from and diffusion of Saturn to the rest of the GM and the UAW organizations. The key findings from our work to date are summarized in Figure 1 and our research methods, detailed findings, the implications we draw from these results, and suggested next steps for our research are discussed in more detail in the following sections.

Figure 1

KEY FINDINGS

QUALITY

Three variables were found to have a significant impact on quality performance. Specifically, high levels of First Time Quality (FTQ), and rates of improvement in FTQ were associated with:

- High levels of communication and coordination among represented module advisors.
- Alignment/agreement between partnered represented and non-represented managers on tasks, priorities, responsibilities, authority and accountability.
- Balance in the time spent by managers on people and production issues.

Representation

While UAW members reported satisfaction with the collective representation through co-management and joint governance which the partnership provided, some expressed concern about the priority and resources devoted to individual representation. Overall, members expressed strong preference for the Saturn partnership work system to that of GM.

Learning and Diffusion

Ambivalence toward the partnership model has limited learning and diffusion of the lessons from Saturn within GM and the UAW.

II. RESEARCH METHODS

The data for this study come from a long term research project with the Saturn Corporation and UAW Local Union 1853. As part of this research we conducted over one hundred indepth interviews. We also engaged in participant observation, attending meetings of Saturn's governing bodies - the Strategic Action Council (SAC), Manufacturing Action Council (MAC), and the joint union-management "decision rings" in each business unit/plant (Vehicle Systems, Body Systems and Powertrain). We worked the assembly line, attended the union "Congress" and many module decision rings across the site, and participated in union leadership off-site planning sessions as well as seminars and meetings with management and union officials. Extensive surveys of communication networks, time use, managerial priorities and partnership relations were conducted on-site and covered all 150 represented and non-represented managers at the module advisor level across all 3 business units over 2 crews, including 57 production and maintenance departments. This study therefore consists of a mix of qualitative research based on direct participation, observation and intervention in the partnership, interview and field notes, and quantitative survey data. Together the data collection phase spans the period from February, 1992 through February, 1996.

The research relationship itself reflects a partnership,

with the union and management providing excellent access and cooperation. Feedback of the results to Saturn and UAW representatives occurred earlier than would be normal for outside social science research in the hopes of helping the parties learn from their experiences as the project evolved.

III. A FRAMEWORK FOR ANALYZING PARTNERSHIP DYNAMICS

Four elements outlined in Saturn's original 1985 collective bargaining agreement were key to the partnership arrangement: 1) the entire work force would be organized into self-directed work teams; 2) decisions would be made through a consensus process; 3) the union would be a full partner in all business decisions; and 4) the corporation would be governed by joint labor-management committees at all levels - corporate, manufacturing, plant and department.

Moreover, the Saturn contract provided language which set the stage for the local parties to create on-line labor-management partnership arrangements through individual one-on-one "partnering" between the union and management in both staff and line organizations. As of our last count this partnering involved over 400 union members in full time managerial positions. These union partners have had the opportunity to join directly in the managerial debates and decisions that shape Saturn's strategy. Thus, partnering goes beyond the formal labor-management committee structure.

Essentially, what would be considered middle management in most organizations now contains a significant number of one-on-one partnerships between non-represented managers and their represented UAW counterparts. It is through this last dimension, co-management, that Saturn and the UAW have become unique in U.S. industrial relations, with institutional arrangements which directly challenge long held assumptions regarding the limits of labor's role in the management process.

Figure 2 below is an illustration of the four dimensions of Saturn's labor-management partnership. We used this framework for analyzing these arrangements, and comparing Saturn's joint governance system to other models of joint labor-management activity. The partnership provides opportunities for both off-line planning, decision making, and problem solving, as well as on-line control of day to day operations. Further, it is important to distinguish between the institutional arrangements involving the local union leadership, and those organized around the workforce involved in shop floor production. While other U.S. joint labor-management governance arrangements include off-line labor-management committees and teams as well as on-line self-directed work groups, we are not aware of any other industrial organization which has developed such a process for co-management by the union. Thus, while co-management

through on-line partnering was never foreseen by the early designers, and was therefore not included in the original agreement, it has deepened the partnership and evolved as one of its most critical elements. We need to differentiate among these processes because they are likely to have different effects as well as complementary features, and all require balance with the need for representation.

Figure 2

A Framework for Analyzing Union-Management Joint Activities

	Union (Institution)	Workforce
Off-line	Labor-Management Committees (Decision Rings)	Problem Solving Teams (Problem Resolution Circles)
On-line	Partnering: Operating & Staff Middle Management	Self-Directed Work Teams (Work Units)

IV. THE UNION AS AN ORGANIZATIONAL NETWORK

In the case of Saturn, the unique presence of hundreds of union members filling managerial positions raised questions regarding the impact of the union on firm performance. One of our earliest impressions of Saturn's manufacturing operations was that the organization had a tremendous capacity to spread information rapidly across the three plants. Through extensive interviews and direct observation we also had the sense that much of this communication system was built on the union organization. In visits to other unionized manufacturing plants we have often heard both managers and union members comment that the union gets information before middle management and first line supervision. This appeared to be true at Saturn as well. Further, UAW members in managerial positions were in a position to take action with that information.

Also unique in Saturn are internal forums such as "Congress" in which the union leadership meets with all union members who have full time managerial positions, to share information and discuss the union's perspective on issues ranging from partnership problems to corporate performance. All UAW partners are required to attend this several hour meeting which has been held twice a month since 1988.

Institutions like Congress reinforce the union as a social network where the relationships can be strengthened between

members who share interests as union members with management responsibilities.

In order to fulfill its new managerial responsibilities, the union has focused on constantly "organizing its membership". This was accomplished through the training of more than 700 elected team leaders, the establishment of over 400 UAW co-management partners who meet regularly in the Congress, and weekly meetings of the union's Leadership Team. Thus, over 1100 leaders, almost 20% of the membership, have formal partnership roles. The result is a dense communication and coordination network among production middle management which we hypothesize may have a significant impact on quality. This communications infrastructure exists within a context in which union members fill positions traditionally occupied by management, and yet bring different values to the governance of the workplace. As union members protected by a collective bargaining agreement, they are freer than their non-represented counterparts to express independent judgment and disagree with upper management without fear of reprisal. Further, the managers who share a union affiliation have different opportunities for interactions than do their nonrepresented counterparts. These interactions are social, educational through union organized training, and related to an internal business planning process directed by the local and conducted through forums like the Congress. This union

context appeared to produce managers with different relationships and different patterns of communication than exist between non-union managers.

High performance manufacturing requires high levels of internal coordination upstream and downstream in the production process, in which each unit is treated by the others as a customer or supplier. This form of organization provides the capacity to solve non-routine problems, improve quality and lower costs. It requires however, extensive information sharing, decentralization and rapid mutual adjustment. We believe Saturn's partnership arrangement has created a quality management infrastructure with high levels of upstream and downstream coordination, cross-team/crew and interdepartmental communication, and quick-response problem solving.

Intra-firm communications is increasingly critical to quality performance in complex manufacturing processes for several reasons. First, when defects are discovered and reported quickly by a downstream operation to their source, then adjustments can be made before large volumes of defective product are produced. Second, often quality relies on interdepartmental coordination of operations, adjusting practices in one area to accommodate requirements in another. This adjustment process relies on regular communications and feedback between the departments. Third, quality improvement

relies not on finding and repairing defects, but on analyzing their underlying cause so the problem will not recur. This problem solving process often requires the input, cooperation and coordination of people across departments. Again, regular and effective communication is critical for success.

Thus, based on our qualitative observations we developed the hypothesis that at Saturn, through its internal organizing roles in the partnership structure, the union helps provides this integration through a dense communication and coordination network. We then tested this hypothesis with a quantitative network analysis that allowed us to examine whether union members managed differently than did their non-represented counterparts, and whether they added value to Saturn's performance.

V. THE PARTNERSHIP AND FIRM PERFORMANCE

In order to analyze Saturn's system of co-management, represented and non-represented operations department-level middle managers were studied. We chose to focus on module advisors for several reasons. Theory suggests that supervision plays a critical role in team based production systems, particularly through coordination and boundary management.

Considerable variation exists in the extent to which the governance principles and co-management dimensions of the

partnership are implemented across and within the three business units. This research design tested whether the variation observed within the co-management system of the partnership was systematically related to quality performance.

We chose three dimensions of the partnership to analyze empirically through surveys:

- 1. Since team based manufacturing systems rely on frequent and effective internal horizontal communications to reach high levels of performance, we would expect higher levels of communication and coordination to be systematically related to higher levels of quality.
- 2. The second dimension balance, is related to Saturn's attempt to transform traditional industrial relations. While traditionally supervisors manage production, and grievance committeemen handle "people problems", at Saturn module advisors are responsible for both. No formal division of these responsibilities is made for the union and non-represented module advisors who in partnership manage each module. Therefore, by analyzing the balance for each manager between time spent managing production, and time spent managing people we can see whether Saturn truly departs from tradition, and if balance is related to performance. Some industry observers believe that while over half of the middle management positions are indeed being filled by union

members, Saturn has simply bought labor peace at a high price. They contend that only the non-represented managers are truly functioning in that role, while the union members are either free riders or acting as grievance committeemen focusing exclusively on people issues. These data allow us to test whether union managers are indeed managing people and production. If both union and non-rep module advisors balance their time between managing people and managing production, Saturn will in fact have departed from the traditional industrial relations of General Motors. We hypothesized that those departments practicing this new industrial relations would produce higher levels of quality.

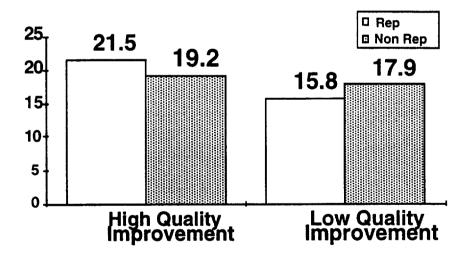
3. The third dimension alignment, is a result of our participant observations of the partnership relations. In some modules the represented and non-represented module advisors worked closely together, reaching decisions through a consensus process. In other modules the partners spent little time discussing their decisions, priorities, work tasks and managed their teams independently. We hypothesized that those union and non-rep partners who had the greatest level of agreement on goals, priorities, tasks and responsibilities would also have higher levels of quality than did partners with less alignment.

VI. IMPACT ON QUALITY

COMMUNICATIONS FREQUENCY AND CENTRALITY

Based on their level of improvement in first-timequality, Saturn's production departments were divided into
two groups - High First Time Quality Improvement and Low
First Time Quality Improvement. As we can see from
Figure 3, the grouping of departments with the highest level
of quality improvement also had significantly higher levels
of communications by the represented module advisor.

Overall Centrality



As we can see from Figure 4, this was true for communications centrality (the overall level of communications), and for group centrality (communications with other represented module advisors within each plant). Most striking are the

differences in communications frequency, specifically on the subject of quality. The represented module advisors in the high quality improvement departments had almost two and one half times the number of regular communications on quality than did their counterparts in the departments with low levels of quality improvement. The data showed no significant difference in overall communications centrality, group communications centrality, or quality communications between non-represented module advisors in the high quality improvement group compared with those in the low quality improvement group.

Figure 4
Communications and Quality Improvement

	o Quality provement	Std.Dev.	Low Quality Improvement	Std.Dev.	T-statistic	N
Overall Co	entrality					
Rep Wuma	21.5	8.13	15.8	6.19	2.117**	32
Non-Rep Wuma	a 19.2	5.13	17.9	4.99	0.508	
Group Cent	rality					
Rep Wuma	8.7	4.02	5.4	2.11	2.751**	32
Non-Rep Wuma	a 4.4	1.45	4.1	1.7	0.478	
Quality Communications						
Rep Wuma	4.1	2.08	1.7	1.41	2.789**	31
Non-Rep Wuma	1.5	1.32	1.9	1.11	0.844	
Balance: P	roduction	& Peop	10			
Rep Wuma	0.948	0.41	0.957	0.74	0.044	34
Non-Rep Wuma	1.309	0.83	2.247	1.62	2.158**	

^{*} significant at the .10 level

^{**} significant at the .05 level

^{***} significant at the .01 level

Departments were also divided into two groups based on their 1993 level of first time quality.

Figure 5
Communications and First Time Quality

	High FTQ	Std.Dev.	Low FTQ	Std.Dev.	T-statistic	N	
Overall Ce	ntrality						
Rep Wuma	18.62	6.98	11.43	5.4	2.897***	32	
Non-Rep Wuma	14.47	6.04	15	5.79	0.232		
Group Cent	rality						
Rep Wuma	7.438	3.86	6.125	2.87	1.09	32	
Non-Rep Wuma	4.647	1.41	3.727	1.67	1.505		
Group Density							
Rep Wuma	0.102	0.036	0.059	0.024	4.006***	32	
Non-Rep Wuma	0.091	0.031	0.104	0.033	1.025		
Quality Communications							
Rep Wuma	3.46	2.15	1.76	1.44	2.170**	31	
Non-Rep Wuma	2.21	1.13	1.12	1.05	2.603**		
Balance: Production & People							
Rep Wuma	1.171	0.73	0.736	0.42	2.121**	34	
Non-Rep Wuma	1.734	1.24	1.987	1.62	0.495		

^{*} significant at the .10 level

As we can see from Figure 5, the level of communication and coordination appears to be related to first time quality performance. The overall site-wide communications centrality of the represented module advisors is significantly higher in the High FTQ group. Similarly, the density of communications among

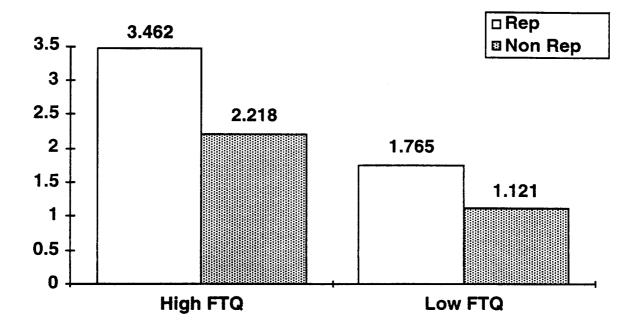
^{**} significant at the .05 level

^{***} significant at the .01 level

represented module advisors within each plant was significantly higher in the High FTQ group. Communications on quality was significantly higher for both represented and non-represented module advisors in the High FTQ group, although the represented level of 3.462 quality communications was greater than the non-represented level of 2.218 (Figure 6).

Figure 6

Quality Communications



BALANCE AND QUALITY PERFORMANCE

Figure 8 shows the difference between represented and non-represented module advisors' use of time on a variety of tasks.

We believe two findings are of particular importance. First, represented module advisors are indeed engaged in supervisory activity. They spend an average of almost 29% of each day managing production. This includes "firefighting, troubleshooting, dealing with production bottlenecks, dealing with equipment failures and downtime, expediting, direction to teams on production schedule, record keeping, and giving work assignments". Second, represented and non-represented module advisors differ significantly in their use of time. Represented module advisors spend significantly more time managing people problems - "attendance, manpower, counseling, listening to team members, resolving personnel conflicts, morale building, representing peoples' needs". Represented module advisors also spend more time on training and administration - "review and analysis of performance data, helping teams track performance, hiring, and team leader development". Non-represented module advisors spend significantly more time on production, but also spend almost 26% of their time managing people problems.

The balance between time spent on production management and time spent managing people problems is critical in evaluating the Saturn partnership arrangement. If represented module advisors spent virtually all of their time on people issues then it could be argued that they are simply filling the traditional role of grievance committeemen in spite of the difference in title. Similarly, if non-represented module

advisors spent the vast majority of their time managing production they would essentially be operating as supervisors in the traditional sense.

The partnership arrangement at the department level requires a balance both between represented and non-represented managers, and between production and people for each individual module advisor. Figures 4, 5 and 7 show that this individual balance is significant. For the non-represented module advisor excessive time managing production at the expense of managing people problems has a negative impact on quality improvement. Similarly for the represented module advisor, excessive time on people at the expense of managing production has a significant negative impact on the level of first time quality. For quality performance the data suggest the most effective balance between time on production and time on people may be close to 1:1 for both represented and non-represented managers.

Balance: Production & People

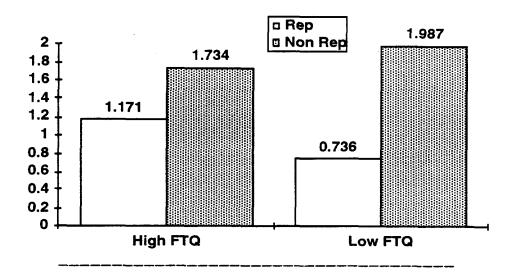


Figure 8

Time Use

	Rep Wuma	Non-Rep Wuma	T-statistic	N
Managing People	0.342	0.259	3.876***	96
Managing Production	0.289	0.383	3.213**	96
Training	0.041	0.025	2.065**	96
Administration	0.071	0.05	2.099**	96
Managing Costs	0.029	0.04	1.423	96
Problem Solving	0.015	0.009	1.381	96
Meetings	0.149	0.159	0.775	96
Other	0.042	0.051	0.755	96

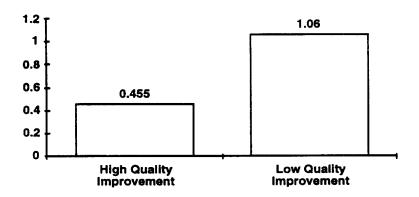
- * significant at the .10 level
- ** significant at the .05 level
 *** significant at the .01 level

ALIGNMENT AND QUALITY PERFORMANCE

The third set of variables mentioned above which has a significant effect on quality performance concerns the alignment of attitudes and behaviors between the represented and non-represented partners in each department/module. Where there is agreement/alignment between the partners on priorities, responsibilities, work tasks, and balance of time use on production and people we see the highest level of quality performance. Alignment is measured by taking the standard deviations of the partners in each module - the lower the standard deviation, the greater the alignment between the partners.

As we can see in Figure 9, the group of departments with the highest level of quality improvement had significantly higher agreement by the partners that they have the same priorities in their work.

Figure 9
Alignment: Priorities



Also significant (Figure 10) for quality improvement was alignment in the balance the partners exhibited between time spent on people and time on production. Similarly, quality improvement was greatest in those departments where partners were in agreement on their level of responsibility for team performance.

Figure 10
Alignment and Quality Improvement

	High Quality Improvement	Low Quality Improvement	T-statistic	N
Alignment:	Balance of Productio 0.548	n and People 1.098	1.963*	30
Alignment:	Responsibilities 0.253	0.707	2.521**	34
Alignment:	Priorities 0.455	1.061	2.696**	34
Alignment:	Accountability 0.253	0.46	1.233	34
Alignment:	Tasks 0.657	0.813	0.655	34

^{*} significant at the .10 level

PREDICTING QUALITY PERFORMANCE

When we used multiple regression techniques to analyze these variables we found that we could explain almost 30% of the variance in **first time quality** by the communications

^{**} significant at the .05 level

^{***} significant at the .01 level

density of the represented module advisor. Further, the overall communications centrality of the represented module advisor along with their quality-specific communications could explain over 60% of the variance in quality improvement.

PREDICTING COMMUNICATIONS AND COORDINATION

Given the impact of communication and coordination on quality, and the variation detected across the corporation, the question of what predicts these variables deserves further study. We investigated this by using individual level data from our survey of module advisors.

While developing a module quality plan, training, and priority alignment appear to explain some of the variance in communications, much more significant predictors are the business unit and whether a module advisor is a member of the union. While high levels of communications are not universal across module advisors, the variance appears to be related to membership in the union organization as well as the nature of the partnership dynamics and governance systems of the individual plants. This finding along with the network analyses supports the hypothesis that union members have higher levels of communications. The regression analyses show how these levels of communications are systematically related to quality performance.

SUMMARY

We found three groups of variables to have a significant impact on quality performance - both quality improvement and first time quality. These variables were:

- The amount and pattern of communications and coordination activity;
- The alignment between the partnered represented and non-represented managers;
- The balance of time spent managing people and production.

Further, represented managers had a higher level of communications and a greater impact on quality performance than did non-represented managers. Using network analysis techniques we were able to describe and measure a dense communications network built on the union organization throughout Saturn's management structure. We have argued in this study that by providing this communications and coordination infrastructure through the partnership institution, the local union is adding significant economic value.

The regression analyses show that we can explain almost 30% of the variation in first time quality, and more than 60% of the variation in quality improvement by examining communications and alignment variables. Most significant in these analyses were the communications of the represented

module advisors, which gives further support to the proposition that the union, through its role in commanagement, is providing a dense communications network which has an important affect on quality performance.

Union and non-represented managers balancing both production and people needs indicate a significant departure from past practice in American industry. What we are seeing in Saturn is not a resurrection of the traditional supervisor and grievance committeeman system, but the creation of a comanagement structure through the partnership arrangement. Both union and non-represented managers have created a new set of roles and a dynamic between themselves which has a significant effect on quality performance.

VII. THE PARTNERSHIP AND UNION PERFORMANCE

We also studied the impact on the membership of the union's extensive involvement in firm management and governance. Using extensive interviews we found that while Saturn's governance and management systems have provided the union access to management's strategic and day to day operational decision making, it may have come at some cost to perception of individual representation.

The overall conclusions can be summarized as follows:

1. The local union gets recognition from members for its role in representing the collective membership in

operations and business decision making, strategy development, and policy making.

- 2. A significant number of rank and file members did not see collective representation as a substitute for the type of individual representation they enjoyed under the grievance committee structure of GM. However, a contract change allowed the election of 14 crew coordinators in 1995 who have the authority to file grievances on behalf of individual members. Further study is necessary to assess the impact of these changes.
- 3. When a policy that the union has had input into is perceived by a member as inequitable or unfair, the issue of individual member representation becomes even more acute. For example, this became particularly evident with respect to the implementation of the new absenteeism policy.
- 4. The jointly selected union partners are not seen as representatives of individual members. Rather they are seen as managers who represent the union as an institution in operations decision making.
- 5. A trend toward centralization of decision making authority within the leadership at the business units, local union, or MAC has left some team members feeling frustrated and "disempowered". Certain centralizing tendencies, which perhaps mirror both General Motors and the UAW, may be unintentional yet counterproductive.

6. While individual representation is a concern, widespread support for the partnership structure remains with the vast majority of members expressing preference for Saturn over a return to GM.

DISCUSSION

It is clear from interviews, observations and empirical data that this local union has focused its time, energy, resources, and attention on organizing an institutional role in the governance and management of the Saturn Corporation. However, this focus on direct collective participation, in the eyes of some members, may be occurring at the expense of resources devoted to individual membership representation.

At Saturn the union appears to have extended high participation work systems through focusing its energy on organizing input, institutional (through joint labor-management decision rings), and direct (through member participation in managerial decision making - partnering). The intent, we believe, was to better represent worker interests through direct participation in policy and decision making (alignment of goals and interests). The design of the partnership appears to have assumed that in this form of union democracy the need for individual representation would be reduced since direct union input would avoid most conflict. Representation was in a sense "front loaded" by

focusing on policy and decision making for the collective membership, with the expectation that in the end this would serve individual needs as well. Thus, the resources of the union were devoted to designing and implementing more sophisticated forms of participation rather than mechanisms for representing individuals in conflict situations or "representational democracy". This process separates the question of what management does from who management is. Yet, the data have shown the need for a balance of participation and representation in labor-management partnerships.

Yet even with the concerns expressed, the majority of workers continue to indicate a preference for the Saturn partnership over the option of returning to the more traditional GM/UAW system of shopfloor relations. They seem to be calling for an alternative that maintains a direct union voice in collective decisions affecting the enterprise, and provides worker input into day to day operations that affect product quality and the way work is done. And they also appear to like the flexibility Saturn and the UAW have shown when crisis or unanticipated problems arise. At the same time, they want an option for individual advocacy and they want to elect those who represent them in this capacity. In short, they seem to want both direct participation in decisions that affect the common goals of the enterprise, and an independent voice to represent their individual interests

and concerns in the day to day implementation and management of the organization. This is a particular challenge when individual interests and the policies the union has advocated for collective interests are in conflict. Thus, while the partnership arrangement has produced significant performance gains and provided new access to decision making, the system continues to evolve as the union searches for ways to enhance individual representation.

VIII. ORGANIZATIONAL LEARNING AND DIFFUSION OF INNOVATION

Finally, we explored questions about organizational learning and diffusion of innovation from Saturn to General Motors and the UAW international union. Clearly the extent of innovation, and in fact the very existence of Saturn, would not have been possible without the vision, resources, and early involvement by the UAW International and GM executives. However, while all of the data are not yet in, early evidence suggests that there is great ambivalence about, and therefore limited diffusion of, the partnership model of industrial relations and operations management within General Motors and the UAW. Saturn remains a controversial organization as a debate over whether Saturn is, or should be, a model for the future of General Motors and the UAW has ensued across both organizations.

While a number of Saturn's technical and marketing

innovations have been adopted in other GM divisions, there is little evidence of significant learning or diffusion from Saturn's organizational innovations to other parts of GM and/or the UAW, particularly around team concepts, comanagement, and the partnership arrangement for joint governance. Based on our research to date, several lessons from Saturn appear relevant:

- 1. Quality performance can be attributed, in part, to the unique role of the UAW in the partnership, including the value of:
- On-line co-management through partnerships of union and non-represented module advisors, as well as off-line roles for both union leaders and members.
- The union infrastructure providing a dense communications network.
- Achieving a balance between focusing on production and people concerns among both represented and non-represented partners.
- Alignment of priorities between the partners in a module.
- 2. The need for the union to maintain effective individual representation as a complement to its role in the co-management and governance processes.

Thus, the partnership arrangement itself may have real market value. Yet, to date neither GM nor the UAW

international union have embraced Saturn and attempted widespread diffusion of its partnership design and innovative industrial relations.

If GM or the UAW simply judge Saturn or its local union on traditional financial or product success criteria, the opportunity to learn from the organizational innovations at Saturn will be lost, and the full value of Saturn will not be realized. Saturn can be seen as a learning laboratory for both GM and the UAW International to test, learn, and transfer innovations to other settings. Learning from Saturn must emphasize not only what aspects of the partnership have succeeded, but also what have not worked. In addition, learning involves evaluating what may be working as part of Saturn's overall "greenfield" model, but would not transfer to a "brownfield" setting. Both the local union and Saturn management have questioned whether the Saturn model is currently being viewed as a learning opportunity, and whether processes will be put in place to make this happen.

IX. NEXT STEPS IN OUR RESEARCH

We have benefited enormously from the partnership that colleagues at Saturn and UAW Local 1853 extended to us over the course of this project. We would now like to take the next step and work with GM and the UAW in a study underway to research the process of innovation in on-going manufacturing

and labor-management relationships. We are interested in learning whether the lessons from this project apply in other facilities, and in turn, how leaders from Saturn and Local 1853 can learn from the experiences of brownfield locations as well. As noted above, this does not imply that we believe all of the practices embodied in the Saturn partnership will fit the circumstances of other locations. Instead, what we hope to do is to work with management and union representatives in these facilities in ways that allow them to determine what, if any, features, underlying principles, relationships, or deeper attributes make partnerships successful. We look forward to extending our work in this way.