Workplace Innovation and Labor Policy Leadership A Challenge to Business, Labor, and Government

Thomas A. Kochan, MIT

Eileen Appelbaum, Rutgers University

Jody Hoffer Gittell, Brandeis University

Carrie Leana, University of Pittsburgh

Richard A. Gephardt, Gephardt Group, LLC

Leaders in labor, business and government need to work together to support the nation's efforts to recover from our deep economic crisis. Our predecessors did so in times of past national crises. Now it is our time to step up to our leadership responsibilities. We believe there is a way to do so that meets the needs of the moment and updates the full range of labor and employment policies to address the needs of the 21st century workforce and economy. What follows is a call to action and strategy for responsible leaders in the labor, business, government, and academic communities to pursue.

The deepening economic crisis has prompted the nation to embark on the largest and most complex public investment in job creation since the Great Depression. Translating these investments into good jobs and the high productivity needed to generate and sustain them will require major changes in labor management relations, workplace practices and labor policies. This in turn will require leaders from business, labor, and community groups to work together with government officials toward this common goal.

Unfortunately, this crisis also comes at a time when business and labor are trapped in the largest ideological battle since the 1930s. Today, like then, labor law is broken and business and labor are deeply divided over how to fix it. But as responsible leaders of the labor and employment relations profession – whether we work in business, labor, government, academia, or as independent neutrals – we cannot allow this impasse to continue. If we are to be worthy of the term "leaders," we must work together and demonstrate that we can build a modern, 21^{st} century labor management relations system that is part of the solution to our economic crisis, not another dimension of the problem.

The new economic recovery program provides both the opportunity and the need to do so. All we have learned from research and practice over the past two decades is that to translate the large financial or technological investments into good jobs and high productivity requires complementary investments in training and workforce development, full engagement of worker knowledge and skills to drive problem solving and innovation, teamwork, and coordination across occupational groups, and positive partnership-based labor management relations.

This transformation in policy and practice will not happen if the status quo divide between business and labor is not resolved; or even if we fix labor law and simply recreate the next generation labor management relations in the mirror image of the past. Instead these investments will be dragged down by bitter and drawn out battles over union representation and traditional adversarial negotiations over wages and other terms of employment. Moreover, we will not get the diffusion of the high performance work practices needed to generate the productivity essential to support gradual improvements in wages.

We believe there is a way to both break the impasse over labor law and lay the foundation for achieving the transformations in policy and practices needed to support the economic recovery program. In what follows, we will outline a three step strategy for doing so that: (1) ensures the public's resources are matched with labor management and workplace innovations needed to create good jobs and the high productivity that will sustain them, (2) fixes labor law and builds a platform for labor, business, and government to work together to support economic recovery, and (3) strengthens and updates the full range of strategies and practices used to enforce America's labor and employment policies and standards.

Confidential Page 2 of 16

A Vision and Strategy for Labor and Workplace Policies

President Obama and the Congress have taken actions to respond to the deepening economic crisis and have embarked on an ambitious strategy to transform the U.S. economy to once again make it work for all Americans. Such a transformation requires significant changes in the American workplace to create and sustain jobs that fully utilize workers' knowledge and skills, drives innovation, productivity, and profits and ensures workers share equitably in the prosperity generated.

The most recent stimulus package calls for investments in key industries such as infrastructure, renewable energies and health care. A large and growing body of evidence demonstrates that achieving a return on these investments requires a matching workforce development and workplace innovation strategy. This strategy's focus must be to promote the development and sustainability of High Performance Work Practices.

High Performance Work Practices

Achieving and sustaining high levels of performance requires a positive workplace environment and practices that develop and leverage employees' knowledge and ability to create value. While the specific practices need to be tailored to fit different industries and occupations, they generally include selection, training, mentoring, incentives, knowledge-sharing, partnership based labor-management relations and other shared decision making mechanisms. These practices are most effective when they are implemented together and in concert with new capital or technological investments.

How High Performance Work Practices Work: High performance work practices have been shown to work in three different ways: (1) fostering development of *human capital*, resulting in a performance advantage for organizations through processes such as increased employee skill development and improved customization by employees in service industries;³ (2) enhancing the *motivation and commitment* of employees, resulting in an organizational and labor-management climate that motivates and supports employee engagement in problem solving and performance improvement;⁴ and (3) building organizational *social capital*, which facilitates knowledge sharing and the coordination of work, and thus improves performance.⁵ Research in settings ranging from public schools to airlines has demonstrated the added benefits to be realized when work practices encourage the simultaneous development of human capital and social capital among employees.⁶

The Role of Unions in Implementing High Performance Work Practices: Neither highly adversarial battles over union organizing nor on-going adversarial labor management relations are conducive to implementing and sustaining high performance work practices or achieving positive results. However labor-management partnerships based on mutual respect for worker, union, and employer rights and responsibilities have been shown to achieve high performance by facilitating employee participation and related high performance work practices and by creating social networks within and across organizations. In particular, the presence of a union is positively associated with a greater number and greater effectiveness of high performance work practices. Furthermore, a combination of formal and informal mechanisms for employee voice has been found to improve the productivity effects associated with implementing high

Confidential Page 3 of 16

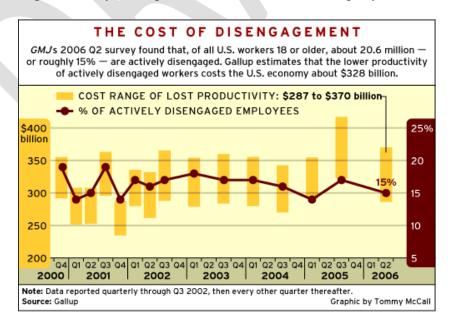
performance work practices compared to implementing the same practices with just informal voice mechanisms or no employee voice.⁹

<u>High Performance Workplace Benefits:</u> Researchers have documented the impact of high performance work practices on:

- Efficiency outcomes such as worker productivity and equipment reliability; 10
- Quality outcomes such as manufacturing quality¹¹ customer service, and patient mortality;¹²
- Financial performance and profitability; 13
- Employee engagement; and
- A broad array of other performance outcomes. 14

Although some studies have found mixed results regarding performance differences associated with these work practices, ¹⁵ many other studies have found that these work practices explain significant performance differences among auto assembly and parts plants, steel mills and finishing lines, ¹⁶ call centers, ¹⁷ airlines, ¹⁸ banks, ¹⁹ health care clinics and hospitals, ²⁰ and high technology firms. ²¹ Among the many successful companies making use of this approach are Southwest Airlines, Kaiser Permanente, Harley Davidson and Springfield Remanufacturing. Please see specific High Performance Workplace case studies in the Appendix to this paper. The magnitude of the effects is substantial, with performance premiums ranging between 15 and 30 percent.

Research has also shown that engaged employees in high performance workplaces are more productive, profitable, safer, create stronger customer relationships, and stay longer with their company than less engaged employees.²² Per the chart below, translating the value of an engaged workforce to the US economy is best illustrated inversely by the cost of employee disengagement on productivity and equates to \$287 to \$370 billion per year.



Confidential Page 4 of 16

Workers benefit from adoption of high performance work systems in three well-documented ways:

- 1. Their human and social capital and therefore their market value are increased by the technical and problem solving training built into these systems;
- 2. Over 70 percent of workers prefer these work systems over either traditional union or non-union systems; and
- 3. When combined with union representation these work systems tend to be associated with higher wages, some of which are achieved through mutual gain sharing or similar compensation practices.²³

The research evidence that employers, employees, shareholders, and customers can simultaneously benefit from work practices that enhance worker motivation and human capital is robust across a wide range of industries. At the same time, such practices cannot be implemented in a "cookbook" manner but instead must be tailored to particular industries and work settings. The evidence is clear-cut: achieving and sustaining world-class levels of performance requires an integrated approach to capital investment, introduction of new technologies, and implementation of high performance workplace practices tailored to the specific industry. Policy makers can support the development and widespread adoption of such practices by linking them directly to investments that are made to stimulate the economy and put the nation on a path to a sustained recovery. While there is an urgency to stimulate our economy and create jobs, more wide-spread adoption of high performance workplace models is fundamental to our country's long term competitiveness in the global economy.

Translating Industry Investments into High Performance

As stated above, each of the initiatives within the most recent Stimulus Program requires a workforce strategy to realize its objectives and expand middle class jobs. To develop these strategies, the Secretary of Labor and the Director of the Federal Mediation and Conciliation Service (FMCS) should be instructed to create industry councils to identify, learn from, and diffuse practices needed to build and sustain high performance workplaces across these industries. Investment funds should be allocated and/or reallocated to provide incentives and to reward those firms that have state of the art practices in place.

Labor Law Reform

The debate over labor law reform needs to be reframed so as to view it as a necessary step to support economic recovery and to better match policy and practice to the needs of the 21st century workforce and economy. To do so, the bill enacted has to both provide a platform that opens the door to a new era of innovation in labor management relations *and* fixes the demonstrated failure to protect workers' rights to organize and gain access to collective bargaining.

<u>Supporting Workers' Rights</u>: Today over 50 million workers would join a union but can't do so because management resists.²⁴ In the most complete study of the organizing process ever conducted, has shown that if management chooses to resist worker efforts to organize to the point that an unfair labor practice is filed, unions have less than a ten percent chance of getting

Confidential Page 5 of 16

from a request for recognition based on a showing of worker support, through an election process, and all the way to achieving a first collective bargaining contract.²⁵

<u>Supporting Economic Recovery</u>: Unions have historically been the strongest and most consistent institutions for achieving gradual improvements in worker wages and for reducing income inequality within and across industries and occupations. Restoring workers' ability to organize is the first step in getting wages and productivity moving in tandem again. Vice President Biden and his middle class task force will not be successful in rebuilding middle class incomes without restoring workers' ability to gain access to collective bargaining.

Expanding the Employee Free Choice Act: The immediate locus of debate between business and labor is the Employee Free Choice Act, a bill passed by the House of Representatives last year that had majority but not filibuster proof support in the Senate. The bill addresses the weaknesses in labor law that have been documented in the organizing and first contract negotiation process by providing for card check recognition, increasing the penalties for labor law violations, and providing for arbitration of first contracts if the parties are unable to reach a negotiated agreement. This is not the place to debate these specific provisions. The time will come for that in the legislative process. We are convinced, however, that, once introduced, an acceptable bill that fixes the basic flaws in the current law can be enacted if the bill is reframed as a necessary step in revitalizing and transforming labor management relations in ways needed to support economic recovery. However, trying to enact this bill without showing how it is essential to the economic recovery program will simply perpetuate the business-labor divide and likely continue the thirty year political gridlock over labor law. If this happens, labor policy will continue to be treated as an economic backwater tied up in "special interest politics" and its needed contributions to economic recovery will be lost.

To jumpstart the needed transformation, the preamble to the bill should state explicitly its objectives are threefold:

- 1. To transform labor management relations in ways that contribute to economic recovery and shared prosperity;
- 2. To encourage cooperation, innovation, and improvements in labor management relations; and
- 3. To restore workers' rights to join a union and gain access to collective bargaining in order to reduce income inequality within and across industries and occupations.

A provision of the bill should then instruct the Secretary of Labor and the Director of the FMCS to work proactively with business and labor leaders to achieve these objectives and to report back to the Congress and the Administration within three years on progress toward them and to suggest further changes that may be needed.

<u>Putting the Law to Work</u>: The central responsibility for making this law work will lie with a greatly expanded and revamped FMCS. The FMCS will need a well executed strategy to help newly formed bargaining units achieve first contracts and build modern high quality labor-management relationship right from the start. Specifically, FMCS should:

Confidential Page 6 of 16

- Assign a mediator to each new unit immediately upon certification and empower the
 mediator to offer the full range of FMCS services—education, training, facilitation,
 mediation, and once an agreement is reached, access to funds to support continuous
 improvements.
- Work with employer, union, and neutral experts to design the arbitration procedures in the new law to maximize the effectiveness of negotiations and mediation (i.e., minimize use of arbitration) and assure arbitration decisions fully reflect the needs, economic circumstances, and features of the industry and organizations involved. A wide variety of design options and administrative processes are available to meet these objectives. The key is to build a process that serves the public interests and has the trust, confidence, and support of responsible employer and employee representatives.
- Initiate and support a broad educational effort, working in cooperation with business, labor and educational institutions, to train the next generation of labor relations professions in state of the art negotiations, problem solving, dispute resolution, and partnership practices and skills.
- Develop the capacity to facilitate the labor- management and workplace innovations needed for industry specific investments to realize their full return. The FMCS should also be instructed to work directly with other agencies of government responsible for distributing and overseeing the use of federal stimulus investments to ensure that state of the art labor management and high performance workplace practices are put in place in order to achieve the full return on the public's investments.
- Create a national advisory council of business and labor leaders to help oversee this
 effort, with industry-level sub councils in those sectors in which public funds are
 invested.

If reframed, enacted, and implemented as outlined above, the new labor law can serve as a platform for labor, business, government, and community leaders to work together to achieve the transformations in workplace practices needed to translate the economic investments into good jobs and high productivity and to get on with the task of modernizing the full range of policies and regulations governing the workplace to better reflect the 21st century workforce and economy.

Strengthening and Updating Enforcement of Employment Standards

The third step in transforming labor policy requires a longer term effort to strengthen and modernize the enforcement of the myriad of regulations governing employment relations. Years of neglect and in some cases active undermining of the enforcement duties of key agencies in the Department of Labor such as the Occupational Safety and Health administration and the Wage and Hour Division need to be overcome. However, even in the absence of an economic crisis, there never would be enough funds available to provide the number of inspectors or enforcement agents to police these employment standards in the traditional command and control way. Given the economic crisis, resources will be even more limited. Each of these agencies will need to experiment with ways both to strengthen traditional enforcement strategies and to draw on and

Confidential Page 7 of 16

leverage the expertise and resources of labor unions, community groups, progressive employers, and dispute resolution professionals. To build support for these experiments the Secretary of Labor and other Administration departments should work with labor and employer representatives to update administrative practices, enforcement strategies, and regulatory processes of the key agencies governing the workplace.

Coordination Among Labor Agencies and Across Government

Strong and well coordinated leadership among labor agencies and across government will be needed to ensure the transformative workforce and workplace policies are well integrated with all aspects of economic policy and with investments made in key industries.

This will require two structural changes from the way labor and workplace policies have been carried out in past Administrations. Greater coordination will be needed *among* the agencies that share responsibility for administering labor policies and *across* all government agencies to ensure labor and workplace issues are integrated with economic policy and investment initiatives.

Currently, responsibility for labor policy is divided among multiple agencies such as the Department of Labor, the National Labor Relations Board, the Federal Mediation and Conciliation Service, the National Mediation Board, and the Federal Labor Relations Authority. Each of these has distinct functions but none, acting alone, is positioned to promote and support the workplace innovations needed to transform workplaces to promote innovation and productivity. While the Department of Labor is the largest and central agency with responsibility for workforce and workplace policies, it currently has no budgetary authority to support, promote, or evaluate workplace innovations or to devote to improving labor management relations. Each of the other agencies has more limited responsibilities for enforcing labor law, facilitating collective bargaining and resolving disputes, and/or improving labor management relationships within their specific domains.

In past Administrations these agencies have worked relatively independently in the absence of a shared vision or strategy for the future of labor management relations and related workplace policies and practices. A more coordinated effort, led by the Secretary of Labor and united around the transformation vision and strategy stated above, will be needed in the Obama Administration.

To support the Secretary's efforts the President should create a National Workforce/Workplace Advisory Council composed of a diverse mix of business, labor, women, minority, and community leaders who reflect the modern workforce and have experience in fostering and implementing innovative workplace practices and relationships. This group should be convened by the Secretary of Labor periodically to help develop a strategic plan for fostering workplace innovations and productive labor management relations and should report annually to the President on progress made toward realizing the workplace transformations needed to achieve a sustained and broadly shared economic recovery.

The more difficult and critical coordination task is to ensure that all aspects of economic policy and strategic investments are combined with the workforce and workplace strategies needed to

Confidential Page 8 of 16

be successful and generate their full return. This will require a strong mandate from the President and a structural innovation.

- The President will need make it clear he will hold all agencies of government accountable for coordinating investment and regulatory strategies with workforce and workplace practices needed to drive productivity, innovation, and compensation policies that drive improved wages and working conditions.
- One option for achieving the necessary cross agency coordination would be to create a new White House post—Special Assistant to the President for Workforce and Workplace Policy—to coordinate efforts across all government agencies and assure that all government agencies are supporting this strategy in the normal course of their work. This should be a high level position that carries the President's authority and mandate into all activities. The Special Assistant would need to work closely with the Labor Secretary in carrying out these duties. It is essential that this person have the professional knowledge, experience, and credibility in labor and human resource matters needed to help craft workforce/workplace strategies and policies that fit the specific agency initiatives.

Conclusion

As outlined in this paper, we strongly believe there is a way to achieve the transformations in labor policy and workplace practices needed to support the economic recovery program. The three step strategy we have provided ensures the public's resources are matched with labor management and workplace innovations needed to create good jobs and the high productivity that will sustain them, strengthens and updates the full range of strategies and practices used to enforce America's labor and employment policies and standards, and fixes labor law so as to create a platform for labor, business, and government to work together to support economic recovery.

This is a pivotal and historic moment for our nation. If we step up to our responsibilities as leaders, we can both help manage our way through this crisis and come out of it with a transformed labor and employment relations system our workforce deserves and our economy needs.

Confidential Page 9 of 16

Appendix: High Performance Workplace Case Studies

Principles for Linking Performance and Workforce/Union Engagement

Employee engagement is critical to improving organizational performance.

Principle 1: Investments in new production, technological, or management systems realize their greatest economic returns when the human and technical element are tightly coupled and integrated.

Principle 2: Implementing new production, technical, or management systems in a unionized setting achieves higher performance when union leaders and members are engaged and labor management relations are transformed in tandem to match the requirements of the production/technical/management system. Stated in a negative way, new systems introduced into a traditional arms length or adversarial labor management environment meet strong resistance and often produce significant conflicts, and fail to achieve their expected performance improvements and economic results.

Evidence:

There is a large body of case study and quantitative evidence and experience underlying these principles. Let's start with the most visible negative example: General Motors efforts to deal with the competitive threat of Japanese auto manufacturers in the 1980s.

Case 1: GM and "NUMMI"

In 1979 NBC ran a news special titled: "If Japan can, why can't we?" It documented the fact that Japanese firms, Toyota in particular, could produce cars at significantly lower cost and higher quality than US firms. GM's initial strategic response to this challenge was to embark on a very ambitious automation effort. It spent, by its own estimates, \$50 Billion (in 1980s dollars) in automating its factories. The result: at the end of the decade GM remained the high cost and least productive auto producer. Even its most highly automated plants were less productive and had more defects than less automated Japanese plants operating in the US.

Why didn't the introduction of automated processes make GM more competitive? GM and everyone else in the auto industry learned from hard data collected at the GM-Toyota-UAW joint venture in Fremont California—the New United Motors Manufacturing, Inc. (NUMMI) that the key to achieving world class productivity and quality lies in effectively integrating the introduction of a new production system with a transformed labor-management system and an engaged workforce.

The numbers in Figure 1 below tell the story. They come from a study done by John Krafcik, one of our MIT students, an industrial engineer who worked at NUMMI. 26 Krafcik collected data that compared NUMMI's productivity with GM's most highly automated plant at the time (Lansing Michigan), GM's most "traditional" labor relations plant (Framingham, Massachusetts), several Japanese plants operating in the US and Toyota's main assembly plant in Japan.

Confidential Page 10 of 16

The results were clear and convincing to executives and union leaders in the auto industry and formed the basis for a best-selling MIT book: *The Machine that Changed the World.*²⁷ Within two years of taking over the GM plant in Fremont California (which also was one of GM's worst performing and worst labor relations plants), NUMMI was approximately 78% more productive than GM's high tech plant and its traditional labor relations plant. NUMMI's quality was also well above other two GM plants, and its productivity and quality matched the best non union Japanese plant in the US and approached the levels of productivity and quality achieved in Toyota's mother plant in Japan.

Case study evidence documents how these results were achieved:

- 1. GM, Toyota, and the UAW negotiated a joint agreement on the principles to guide Toyota's take over and management of the plant.
- 2. Toyota would be allowed to introduce its standard production system with the full participation of the union and engagement of the workforce.
- 3. Work systems would be adapted to support implementation of the Toyota Production System.
- 4. Workers would be trained and engaged in teams to foster continuous improvement.

Subsequently research comparing assembly plants around the world by another MIT student, John Paul MacDuffie, demonstrated these results generalize across a global sample of automobile assembly plants. The quantitative evidence from MacDuffie's work showed that those plants that had the best integration of the technical production system with the human aspects of the work processes (teamwork, employee participation, training, etc.) achieved higher productivity than either traditionally managed plants or plants with high levels of technological investment that did not achieve the complementary changes in work systems or labor relations.²⁸

Figure 1
Productivity and Quality of Selected Auto Assembly Plants, 1987

	Productivity (hrs/unit)	Quality (defects/100 units)	Automation Level (0=none; 100=max)
Honda, Ohio	19.2	72.0	77.0
Nissan, Tenn.	24.5	70.0	89.2
NUMMI, Calif.	19.0	69.0	62.8
Toyota, Japan	15.6	63.0	79.6
GM, Mich.	33.7	137.4	100.0
GM, Mass.	34.2	116.5	7.3

- Productivity here is defined as the number of man-hours required to weld, paint, and assemble a vehicle. These figures have been standardized for product size, option content, process differences, and actual work schedules (i.e. differing amounts of break time).
- Quality is based on a J.D. Powers survey of customer-cited defects in the first six months of ownership. The number in the column is the number of defects per 100 vehicles. Only defects attributable to assembly operations are included.

Confidential Page 11 of 16

• Level of automation is a radio robotic applications in each plant divided by the production rate. These figures have been normalized with 100.0 indicating the highest level of automation in this group.

*John Krafcik and James Womack, M.I.T. International Motor Vehicle Program, March 1987.

Case 2: Southwest Airlines

Similar results come from a service sector example: Southwest Airlines. Southwest has been the most consistently profitable airline in the US (indeed in the world) over the past 30 plus years. It is also the most highly unionized airline in the US (over 80 percent of eligible employees are unionized). Jody Hoffer Gittell's MIT dissertation documented why Southwest has been able to turn around its planes 33 percent faster than its competitors (roughly 20 minutes versus 30 minutes). Her findings can be summarized as follows:

- 1. Achieving rapid turnarounds (time elapsed between landings and takeoffs) is critical to the business strategy of Southwest because it increases the utilization and therefore the productivity of its biggest physical assets—airplanes.
- 2. Therefore, from the beginning Southwest worked hard to design a ground operations' process that minimized turnaround time.
- 3. This process requires smooth coordination across multiple occupational groups—cabin crews, ramp attendants, baggage handlers, customer service agents, schedulers and logistics personnel, etc.).
- 4. Hoffer Gittell's research (case studies and quantitative comparisons of Southwest and American airlines operations in multiple airports) demonstrated that the differences in performance were due to the integrated workforce and labor relations system that supported the Southwest operations' strategy. She labeled this "relational coordination."

Other Quantitative Evidence

The results from the GM and Southwest case have been shown to generalize to industries as diverse as steel, telecommunications, apparel, and assorted other sectors. For example a classic study of steel industry finishing lines (all organized by the United Steel Workers) demonstrated that those with the most advanced forms of teamwork, pay for skills, and flexible work practices were significantly more productive than plants that had equivalent levels of technological investments but more traditional labor management relationships.³⁰

Black and Lynch's classic study of productivity in a large sample of US manufacturing industries showed that unionized plants that combined investments in technology with employee engagement were 15% more productive than non-union plants and between 15 and 25% more productive than traditional (arms length) unionized plants. In short they document significant productivity returns to both engaging both union leaders and employees in introducing workplace innovations.³¹

More recently similar studies of integrating investments in information technologies (IT) with work process changes and employee engagement produced the same effects: Those environments where IT investments were matched by changes in work processes and employee

Confidential Page 12 of 16

engagement achieve greater returns to the technology and higher productivity than did those facilities that invested in IT without the corresponding work system changes.³²

Studies like this continue to be carried out and show similar effects. One further example from current research may be instructive. Our research group has been studying the Kaiser Permanente labor management partnership. As part of the study, one of our PhD students, Adam Seth Litwin has been studying the introduction of electronic medical records' technologies across different Kaiser Permanente clinics. His research shows (preliminary results since it is a work in progress) that in settings where the labor management partnership is flourishing it takes somewhat longer to implement the new systems but once implemented they achieve bigger performance improvements and higher levels of performance than units where there is little partnership activity.³³

Lessons from Labor Management Partnerships

We have studied a wide variety of labor management partnerships (and traditional union management relationships) over the past thirty years in companies ranging from Xerox, to GM-NUMMI and GM-Saturn, to Southwest, to Kaiser Permanente.³⁴ The key points we take away from this work can be summarized as follows:

- 1. Focused labor-management partnerships, i.e., those organized around key strategic or operational objectives and processes,—like Southwest and NUMMI—generate economic performance gains faster than do large and multi-level complex partnerships such as Saturn and Kaiser Permanente. Recall, the Southwest and NUMMI examples started with a clear focus on the key elements of the production (Toyota) and service (Southwest) models that needed to be introduced.
- 2. All labor-management partnerships engaged union leaders and members upfront and throughout all stages of the implementation process and adapted the processes based on inputs from workers and union leaders on the ground.
- 3. Introduction of new technologies or design of new operations sometimes required more time with union and workforce engagement. This is the case with respect to the introduction of new medical records' information technologies at Kaiser Permanente. But the payoffs from involvement are significantly higher over time.
- 4. When major projects are involved that require design of new plants or operations (e.g. creation of the Saturn Corporation or the design and opening of a new hospital at Kaiser), full engagement of the union and workforce in the design process both reduced the time expected to implement the new system (e.g., open the new hospital at Kaiser and change over to a new model at Saturn) than had been the case in prior management and engineering led openings or model changes.
- 5. Issues of contracting out work versus doing work in house are highly sensitive in partnership processes. Failure to deal with workforce job security concerns will threaten the continuity of a partnership where already underway or make it difficult or impossible for a partnership to be accepted by the workforce (Kaiser). Successful partnerships have learned to address contracting out issues in an open fashion.

Confidential Page 13 of 16

_

- ⁴ Osterman, P. (1988). Employment Futures: Reorganization, Dislocation and Public Policy. New York: Oxford University Press; Mahoney, T.A., Watson, M.R. (1993). Evolving modes of workforce governance: An evaluation. In B.E. Kaufman, M.M. Kleiner (eds.), Employee Representation: Alternatives and Future Directions, 135-168. Madison, WI: Industrial Relations Research Association, University of Wisconsin; Tsui, A.S., Pearce, J.L., Porter, L.V., Hite, J.P. (1995). Choice of employee-organization relationship: Influence of external and internal organizational factors. G.R. Ferris (eds.), Research in Personnel and Human Resource Management, 13: 117-151. Greenwich, CT: JAI Press; Appelbaum, E., Bailey, T., Berg, P., Kalleberg, A.L. (2000). Manufacturing Advantage: Why High-Performance Work Systems Pay Off. Ithaca, NY: ILR Press.
- ⁵ Nahapiet, J., Ghoshal, S. (1998). Social capital, intellectual capital and the organizational advantage. <u>Academy of Management Review</u>, 232: 242-266; Tsai, W., Ghoshal, S. (1998). Social capital and value creation: The role of intrafirm networks. <u>Academy of Management Review</u>, 41: 464-476; Leana, C.R., Van Buren, H.J. (1999). Organizational social capital and employment practices. <u>Academy of Management Review</u>, 24: 538-555; Levin, D.Z., Cross, R. (2004). The strength of weak ties you can trust: The mediating role of trust in effective knowledge transfer. <u>Management Science</u>, 50: 1477-1490; Gittell, J.H. (2000). Organizing work to support relational coordination. <u>International Journal of Human Resource Management</u>, 11:517-39; Gittell, J.H., Seidner, R., Wimbush, J. (2009). A relational model of how high performance work systems work. <u>Organization Science</u>, forthcoming.
- ⁶ Leana, C.R., Pil, F. (2006). Social capital and organizational performance: Evidence from urban public schools. Organization Science, 17(3): 353-366; Gittell, J.H. (2000). Organizing work to support relational coordination. International Journal of Human Resource Management, 11:517-39; Pil, F., Leana, C.R. (2009). Applying organizational research to public school reform: The effects of teacher human and social capital on student performance. Academy of Management Journal, forthcoming; Gittell, J.H. (2009). High Performance Healthcare: Organizational Practices That Ensure Quality, Efficiency and Resilience. New York: McGraw-Hill, forthcoming.

 ⁷ Rubinstein, S.A. (2006). Collaborative community and employee representation. In P. Adler and C. Heckscher (eds.), The Firm as Collaborative Community: Reconstructing Trust in the Knowledge Economy, Oxford University Press: 334-352; Appelbaum, E., Hunter, L. (2005). Union participation in strategic decisions of corporations. In R. Freeman and L. Mishel (eds.), Emerging Labor Market Institutions for the 21st Century, Cambridge, MA: National Bureau of Economic Research: 265-291. Kochan, T.A., Eaton, A.E., McKersie, R.B, and Adler, P. Healing Together: The Kaiser Permanente Labor Management Partnership, Ithaca, NY: Cornell University Press, forthcoming 2009.
- ⁸ Gittell, J.H., von Nordenflycht, A., Kochan, T.A. (2004). Mutual gains or zero sum? Labor relations and firm performance in the airline industry. <u>Industrial and Labor Relations Review</u>, 57(2): 163-179. Eaton, A.E., Voos, P.B. (1992). Unions and contemporary innovations in work organization, compensation and employee participation. In P. Voos and L. Mishel (eds.), <u>Unions and Competitiveness</u>, Armonk, NY: M.E. Sharpe; OECD, <u>1999 Employment Outlook</u>.

Confidential Page 14 of 16

¹Horgan, J., Muhlau, P. (2006). Human resource systems and employee performance in Ireland and the Netherlands: A test of the complementarity hypothesis. <u>International Journal of Human Resource Management</u>, 17: 414-439.

² MacDuffie, J. (1995). Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. <u>Industrial and Labor Relations Review</u>, 48: 173-188; Dunlop, J.T., Weil, D. (1996). Diffusion and performance of modular production in the U.S. apparel industry. <u>Industrial Relations</u>, July: 334-355; Ichniowski, C., Shaw, K., Prennushi, G. (1997). The effects of human resource practices on manufacturing performance: A study of steel finishing lines. <u>American Economic Review</u>, 87: 291-313; Batt, R. (1999). Work design, technology and performance in customer service and sales. <u>Industrial and Labor Relations Review</u>, 52: 539-564; Appelbaum, E., Bailey, T., Berg, P., Kalleberg, A.L. (2000). <u>Manufacturing Advantage: Why High-Performance</u> Work Systems Pay Off. Ithaca, NY: ILR Press.

Gibbert, M. (2006). Generalizing about uniqueness: An essay on an apparent paradox in the resource-based view. Journal of Management Inquiry, 15: 124-134; Fried, V.H., R.D. Hisrich (1994). Toward a model of venture capital investment decision-making. Financial Management, 23(3): 28-37; MacMillan, I.C., Zemann, L., Subbanarasimha, P.N. (1987). Criteria distinguishing successful from unsuccessful ventures in the venture screening process. Journal of Business Venturing, 2: 123-138; Snell, S.A., Dean, J.W. (1992). Integrated manufacturing and human resource management: A human capital perspective. Academy of Management Journal, 35: 467-504; Batt, R. (2002). Managing customer services: Human resource practices, quit rates, and sales growth. Academy of Management Journal, 45: 587-598.

⁹ Black, S., Lynch, L. (2004). What's driving the new economy: Understanding the role of workplace practices. Economic Journal, 114(493), F97-116; Coats, D. (1999). Speaking Up! Voice, Industrial Democracy and Organisational Performance, The Work Foundation.

Youndt, M.A., Snell, S., Dean, Jr., J.W., Lepak, D.P. (1996). Human resource management, manufacturing strategy, and firm performance. Academy of Management Journal, 39(4): 836-866; Ichniowski, C., Shaw, K., Prennushi G. (1997). The effects of human resource practices on manufacturing performance: A study of steel finishing lines. American Economic Review, 87: 291-313.

¹¹ MacDuffie, J. (1995). Human resource bundles and manufacturing performance: Organizational logic and flexible

production systems in the world auto industry. <u>Industrial and Labor Relations Review</u>, 48: 173-188. ¹² West, M., Borrill, C., Dawson, J., Scully, J., Carter, M., et al. (2002). The link between the management of employees and patient mortality in acute hospitals. <u>International Journal of Human</u> Resource Management, 13: 1299-1311.

¹³ Huselid, M. (1995). The impact of human resource management on turnover, productivity and corporate financial performance. Academy of Management Journal, 38: 635-72; Delery, J.E., Doty, D.H. (1996). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictions. Academy of Management Journal, 39(4): 802-35; Collins, C., Smith, K. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. Academy of Management Journal, 49(3): 544-560.

Appelbaum, E., Bailey, T., Berg, P., Kalleberg, A.L. (2000). Manufacturing Advantage: Why High-Performance Work Systems Pay Off. Ithaca, NY: ILR Press; Bartel, A.P. (2004). Human resource management and performance outcomes: Evidence from retail banking. Industrial and Labor Relations Review, 57: 181-203; Wright, P.M., Gardner, Moynihan, L. (2006). Impact of HR practices on the performance of business units. Human Resource Management Journal, 13(3): 21-36.

15 Cappelli, P., Neumark, D. (2001). Do high performance work practices improve establishment level outcomes? Industrial and Labor Relations Review, 54: 737-775.

⁶ Ichniowski, C., Shaw, K., Prennushi, G. (1997). The effects of human resource practices on manufacturing performance: A study of steel finishing lines. American Economic Review, 87: 291-313.

¹⁷ Batt, R. (1999). Work design, technology and performance in customer service and sales. <u>Industrial and Labor</u> Relations Review, 52: 539-564.

Gittell, J.H. (2003). The Southwest Airlines Way: Using the Power of Relationships to Achieve High Performance. New York: McGraw-Hill; Gittell, J.H. (2001). Supervisory span, relational coordination and flight departure performance: A reassessment of post-bureaucracy theory. Organization Science, 12(4): 467-482.

¹⁹ Richard, O.C., Johnson, N.B. (2004). High performance work practices and human resource management effectiveness: Substitutes or complements? Journal of Business Strategy, 21(2): 133-148.

²⁰ Gittell, J.H., Seidner, R., Wimbush, J. (2009). A relational model of how high performance work systems work. Organization Science, forthcoming.

²¹ Cutcher-Gershenfeld, J., (1991). "The impact on economic performance of a transformation in workplace relations," Industrial and Labor Relations Review, 44, 2, 241-260; Collins, C.J., Clark, K. (2003), Strategic human resource practices, top management team social networks, and firm performance: The role of human resource practices in creating organizational competitive advantage. <u>Academy of Management Journal</u>, 46: 740-751. ²² Gallup Management Journal (2006). "Gallup Study: Engaged Employees Inspire Company Innovation."

²³ MacDuffie, J.P. and Kochan, T.A. (1995). Do U.S. firms invest less in human resources? Training in the world auto industry. Industrial Relations, 34:147-168; Freeman, R.B. and Rogers, J., What Do Workers Want? Ithaca, N.Y. Cornell University Press, 1999; Appelbaum, et al, Manufacturing Advantage: Why High-Performance Work Systems Pay Off; Kochan, et al, Healing Together: The Kaiser Labor Management Partnership.

24 Richard B. Freeman, "Do Workers Still Want Unions? More than Ever," Economic Policy Institute Briefing

Paper, February 22, 2007. Available at www.sharedproperity.org.

²⁵ John-Paul Ferguson, "The Eyes of the Needles: A Sequential Model of Union Organizing Drives," *Industrial and* Labor Relations Review, Vol. 62, No. 1 (October, 2008), 3-21.

²⁶ John Krafick, "Triumph of a Lean Production System," *Sloan Management Review*. 1988, 30, 1, pp. 41-52. See also, Thomas Kochan, "On the Human Side of Technology, ICL Technical Journal, November 1988, 391-400. ²⁷ James Womack, Daniel Jones, and Daniel Roos, *The Machine that Changed the World*, New York: Rawson, 1990.

²⁸ See John Paul MacDuffie and John Krafcik, "Integrating Technology and Human Resources for High-Performance Manufacturing: Evidence from the International Auto Industry," in Thomas Kochan and Michael Useem, Transforming Organizations. New York: Oxford University Press, 1992, pp. 209-226.

Confidential Page 15 of 16 ³³ Adam Seth Litwin, "Medical Record Technologies, Labor Management Partnership, and Performance." Draft manuscript in progress, MIT Institute for Work and Employment Research, 2008.

³⁴ See for example: Joel Cutcher Gershenfeld, *Tracing a Transformation in Workplace Relations: The Case of Xerox and the Amalgamated Clothing and Textile Workers Union*, U.S. Department of Labor Bureau of Labor Management Relations and Cooperative Programs, 1988; Saul Rubinstein and Thomas Kochan, *Learning from Saturn*. Ithaca, NY: Cornell University/ILR Press, 2001; and Thomas Kochan, Adrienne Eaton, Robert McKersie and Paul Adler, *Healing Together: The Labor Management Partnership at Kaiser Permanente*. Draft Manuscript, MIT Institute for Work and Employment Research, 2008.

Confidential Page 16 of 16

²⁹ Jody Hoffer Gittell, *The Southwest Airlines Way*. New York: McGraw Hill, 2004.

³⁰ Casey Ichniowski, Kathryn Shaw, and Giovanna Prennushi, "The Effectsof Human Resoruce Management Practices on Productivity," *American Economic Review*, 86, 1997, pp. 291-313.

³¹ Sandra Black and Lisa Lynch, "How to Compete: The Impact of Workplace Practices and Information Technology on Productivity," *Review of Economics and Statistics*, 83, 2001, 434-45.

³² Timothy F. Bresnahan, Erik Brynjolfsson, and Lorin M. Hitt, "Information Technology, Workplace Innovation, and the demand for Skilled Labor: Firm Level Evidence," in Margaret M. Blair and Thomas A. Kochan, (eds.), *The New Relationship*. Washington, D.C.: The Brookings Institution, 1999, pp. 145-84.