McKinsey Global Institute

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Changing the fortunes of America's workforce: A human capital challenge

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Preface

This publication is the result of an effort by the McKinsey Global Institute (MGI) and McKinsey Social Sector Office (SSO) with the support of McKinsey practice experts around the world. This effort builds on nearly two decades of MGI's research experience in conducting detailed analysis on labor productivity, global economic restructuring, the economic impact of offshoring, and other labor market developments.

In an effort to provide a comprehensive, well-founded explanation of income dispersion to policymakers and other interested parties, MGI and SSO conducted a study of changes in income dispersion and their causes from 1991 to 2005. Very specifically, the goals of the study were to provide facts on differential rates of growth in household income, map links between the patchwork US labor market and differential growth in labor incomes (the dominant component of household incomes), and explain the main drivers of differential growth in labor incomes and their relative significance to different groups of workers.

Diana Farrell, former director of MGI, provided strong leadership on this project. Martha Laboissière, an associate principal in our San Francisco office worked closely with us to provide leadership to the project team which included Imran Ahmed, Jan Peter aus dem Moore, Tilman Eichstadt, Lucia Fiorito, Alexander Grunewald (Alum), Jorge Hargrave, James Hoyt (Alum), Diana Kapsa, Tanya Khakbaz (Alum), Thomas Lamatsch, Dorothy Liao, Jenny Liao, Robin Matthias, Sara Parker (Alum), Ying Shi, Claudia Steinwender, and Soyoko Umeno.

Our steering committee, including Martin Baily, a senior academic advisor to MGI, Eric Beinhocker, Heino Faßbender, Axel Borsch-Supen, Dominique Turcq, and Laura Tyson, provided ongoing support to the team.

Many McKinsey colleagues, including Jonathan Ablett, Lowell Bryan, Toos Daruvala, Michael Patsalos-Fox, Ezra Greenberg, Ted Hall, Claudia Joyce, Michael Jung, Nancy Killefer, Jürgen Kluge, Simon London, Paul Mango, Frank Mattern, Tim McGuire, Thomas Mitschke, Stefan Niemeier, Wilhelm Rall, Nick Semaca, Zubin Taraporevala , Patrick Viguerie, Tim Welsh, and Eckart Windhagen, provided valuable insight and advice.

Significant input was provided by outside advisors. We owe a special debt of gratitude to Tammy Johns from Manpower. In addition to providing ongoing support and advice to the team, Manpower shared their data to enrich our analysis. We would also like to thank Sascha Stürze and the team at Analyx for insightful discussions and for providing analytical assistance.

We also benefitted from numerous interviews with public and private sector leaders, including Richard Burkhauser, Carl Camden, M. Susan Chambers, Pablo Farias, Gina Glantz, Allan Goldstein, Ted Grant, Ron Haskins, Robert Lawrence, Matt Miller, Lawrence Mishel, Helen Neuborne, Janice Nittoli, Howard Paster, Judith Rodin, Isabelle Sawhill, and Chris Weller.

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This work is part of the fulfillment of MGI's mission to help inform the global forces shaping business and society, improve performance, and work for better national policies. As with all McKinsey research, results and conclusions are based on the unique outlook that McKinsey experts bring to bear. This perspective is independent and has not been commissioned or sponsored in any way by any business, government, or other institution.

Lenny Mendonca

Chairman, McKinsey Global Institute
San Francisco

Byron Auguste

Director, McKinsey and Company
McKinsey Social Sector Office
Washington, DC

June, 2009

Executive summary

Rising income dispersion in the United States and other developed nations has become a source of concern. Since the early 1970s, incomes for the highest US earners have raced ahead, while those at the bottom of the income distribution have stood still and those in the middle have increased more modestly than the post-war average. Strikingly, even in the current recession, this underlying trend is not reversing.

Lack of clarity on the causes of the trend has so far hampered progress on what policy responses, if any, may be appropriate. Among the possible causes cited in the public debate, are technology change, free trade, offshoring, immigration and the decline of the unions. Passionate advocates on all sides recommend measures responding to these headline issues. Yet there has so far been no reliable and comprehensive explanation of how these and other factors behind growing income dispersion interact systemically and across the entire workforce. This uncertainty makes it hard to know where best to focus.

In an effort to help build a comprehensive, well-founded explanation of income dispersion for policymakers and other interested parties, the McKinsey Global Institute (MGI) and McKinsey Social Sector Office conducted a study of changes in income dispersion and their causes from 1994 to 2005—over the course of the last full macroeconomic cycle. We believe this study analyzes a broader, deeper data set than previous research in the area. Drawing on earlier research in the field, it analyzes relationships between the demographic, occupational, and industry shifts affecting income dispersion and examines all major potential drivers of the phenomenon. Taking a high resolution "labor market" lens to the forces at work, this is the first study to decompose income dispersion across the entire US workforce into its component parts and identify those drivers of dispersion most relevant to each segment.

We found no single, isolated cause or "silver bullet" remedy for rising income dispersion. But our findings, outlined below, show that US labor market policy coming out of the recession would do well to focus on redeveloping America's human capital, not only for students in schools and colleges but across the current workforce.

Overall, the study shows that widening income dispersion reflects labor market institutions that have been too slow to respond to ongoing structural changes in the US economy. Most of the economy has already shifted from manufacturing to services and that shift continues. The growing complexity of economic activity seen in, for example, global supply chains, just-in-time production, and increasingly precise customer segmentation and channel strategies, has led to higher demand for advanced skills. This is reflected not only in a changing mix of occupations and compensation levels, but also in a greater variation in skill levels and incomes within particular occupations.

Such developments, essential drivers of productivity growth, mean that human capital productivity is now the key to the nation's overall economic growth. The growth sectors of the future, whatever they may be, will certainly need highly developed human capital to succeed. But too few Americans are equipped with the skills required to fill attractive jobs in new growth sectors. The minority with those skills have enjoyed substantial income premiums not least because such capabilities are in short too supply.

Understanding the labor market is the key to understanding income dispersion

Household income dispersion grew unusually wide from top to bottom between 1994 and 2005 because there was very rapid income growth among the top 10 percent of

households,[1] averaging 3.6 percent a year, while incomes among the bottom 10 percent of households grew at an average of only 1.2 percent a year, and income growth for upper and middle income households was also moderate, at 1.6 percent to 1.9 percent a year.

The main elements of household income are labor income, earnings from savings and other financial assets, and government transfers. It is also influenced by tax policies, such as increases in the Earned Income Tax Credit. In addition, demographic trends, such as household size and family structure, could also play a role. We assessed how changes in all these factors had affected overall changes in income growth across the population from 1994 to 2005 and found that changes in labor income were clearly the most important, perhaps not surprisingly since labor income accounts for 75–85 percent of pretax household income across the income distribution.[2] So, while most previous studies of income dispersion take household incomes as their starting point, we have taken a labor market lens to scrutinize these trends.

Seventy-one percent[3] of US workers are in jobs for which there is low demand from employers, an oversupply of eligible workers, or both

To illuminate the changing fortunes of America's workforce, we examined changes in employment and compensation at every intersection of occupation and industry in the US economy—in other words, for almost every kind of job, from repetitive manual workers in the textile industry to managers in the financial services industry. This analysis shows how varying movements in rates of pay and employment for each kind of job in each industry produced the outcome of a rapidly growing economy in which a minority of workers enjoyed unprecedented income gains while the majority experienced average or below average gains.

The study identified eight clusters of industry/occupation pairs or jobs in which employees had experienced similar income levels, income growth, and employment growth over the period (Exhibit 1). The two highest-income clusters, containing 22 percent of the workforce, had experienced high growth in both employment and incomes, reflecting high demand for labor in their job markets.

Exhibit 1

Several clusters had similar labor market experience

30% below national average
In between
30% above national average

Cluster	2005 Income $'000s in 2003 dollars	Income CAGR %, 1994-2005	Employment CAGR %, 1994-2005	2005 Employment share %	Supply & demand interaction
1. Top earner	85.5	3.0	4.4	7.8	▪ Demand-driven
2. White-collar workers	69.7	2.3	1.8	14.0	▪ Demand-driven
4. Front line	52.1	1.6	2.6	6.7	▪ Supply shock and demand-driven
5. Speeding treadmill	40.2	0.8	1.8	17.4	▪ Supply shock
6. Automated away	32.7	0.8	-0.8	13.2	▪ Demand-shock
7. Classic blue collar	31.8	0.2	-3.5	4.5	▪ Demand-shock
8. Semi-skilled worker	29.0	0.5	3.2	19.9	▪ Supply shock
9. Low earner	25.8	-0.7	0.9	9.0	▪ Demand-shock
National Average	43.7	1.7	1.4		

SOURCE: CPS; BLS; McKinsey Global Institute analysis

1 The household income of the top 1 percent of households grew at 7.2 percent a year between 1994-2005, twice the average of the top 10 percent of households.

2 Household pretax income contains labor income, asset income, and transfers. Labor income accounts for 75–85 percent of household pretax income for the top 70 percent of households and accounts for 50 percent of household pretax income for the bottom 30 percent of households.

3 Only 94 percent of the labor force could be analyzed given data limitations.

Twenty-seven percent of workers in three clusters lower on the income scale had experienced low growth in both their employment markets and their incomes, reflecting declining demand for their skills in the labor market. They are largely working for employers in shrinking sectors, particularly in manufacturing.

The remaining 44 percent of workers were in three clusters characterized by high employment growth but medium or low income growth, reflecting a market oversupplied with low-skilled workers only qualified to do the lower-skill jobs found in those clusters. Workers in these clusters have too few skills to qualify for more favorable jobs.[4]

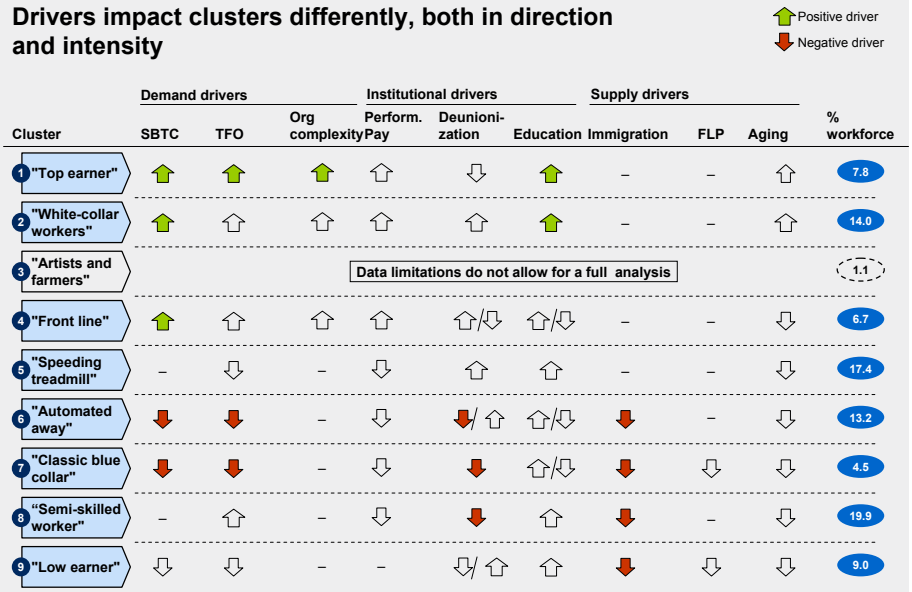
Incomes and employment for the top-earning 22 percent of workers grew fast, mostly because new technologies and new opportunities in global markets ramped up demand for advanced skills

We also assessed nine possible drivers of varying rates of labor income growth across the workforce so far identified by economists to understand their relative impact on the incomes of workers in different jobs. The study identified eight clusters of industry/occupation pairs or jobs in which employees had experienced similar income levels, income growth, and employment growth over the period. Of the ten possible drivers of changes in labor income examined by the study, two in particular reshaped demand for labor across the workforce. These were skill-biased technological change (technology, for short) and trade, foreign direct investment (FDI), and offshoring.

Technology combined with increased opportunities for trade, FDI and offshoring, as well as the growing complexity of organizations, fostered rapid growth in demand and compensation for managers and professional services workers with the requisite skills. These occupations employ the bulk of employees comprising the 22 percent of the workforce in the two highest-earning job clusters (Exhibit 2).

Exhibit 2

Drivers impact clusters differently, both in direction and intensity



SOURCE: CPS; BLS; McKinsey Global Institute analysis

At the same time, technology in the form of automation combined with negative effects of trade, FDI and offshoring put direct pressure on labor demand and wages in lower paid job clusters, with some much more severely affected than others. For instance, these factors eroded jobs in manufacturing but barely had any direct effect on employment in the recreation, hospitality and tourism (RHT) sector. As with any of the drivers studied, however, they are likely to have had indirect "ripple" effects on wage levels in other job clusters.

4 Does not total 100 percent. There was insufficient sample of certain industry/occupation pairings, which did not allow for their inclusion in the clustering analysis.

Immigration and deunionization depressed income growth for low-skilled workers and for higher-skilled workers whose skills became obsolete

Our analysis shows that migration and deunionization exerted downward pressure on compensation levels for workers in repetitive manual labor occupations and administrative support roles in the two lowest-earning clusters across all industries. On average, the jobs performed by workers in this group require relatively low levels of skill and education, so they are the jobs that immigrants with few skills are most likely to get. Roughly 60 percent of the jobs in these two groups saw a substantial rise in employment numbers and in the share of employment filled by immigrants.

Deunionization was slightly less important but still considerable in its moderating effect on income growth for the lowest earning labor market clusters. For example, union membership declined by 11.2 percentage points to 11.9 percent from 1991 to 2005 in the recreation, hospitality and transportation industry, while employment in this industry grew by 2.1 percent.

Immigration and deunionization also had a negative effect on incomes for workers in manufacturing production jobs. Immigration of relatively low-skilled workers exacerbated an oversupply of employees with obsolescent skills in manufacturing industries already severely affected by automation and the offshoring of plants to lower-wage locations. For instance, the share of foreign-born migrants in production rose 7.3 percentage points to 23.5 percent between 1993 and 2005, and in machinery, electronic, and furniture manufacturing it was up 7.5 percentage point to 18.4 percent. Meanwhile, union coverage shrank by 8.1 percentage points in production to 15.7 percent in 2005 and by 9.2 percentage points in machinery, electronic, and furniture manufacturing to 12.6 percent in 2005. A bigger labor supply and weakened union bargaining power together exerted downward pressure on workers' wages in manufacturing production jobs. By contrast, immigration did not significantly affect employment or incomes for white collar and managerial workers, except insofar as the innovation generated by migrants may have increased demand and productivity growth, outcomes we did not measure.

Education is the most important mediator of future labor and supply and demand

In light of the growing demand for skills, appropriate education and training plays a critical role in giving workers access to more attractive jobs. Moreover, a shortage of American workers with the skills to fill the jobs fostered by new technologies and more complex organizations has meant that people with those skills have seen substantial income premiums. To illustrate, a purchasing manager in a US manufacturing multinational might be tasked with buying the best value inputs from anywhere in the world to supply factories in Asia. To do that job well, she would need advanced skills in a host of information technologies, the ability to coordinate the activities of colleagues and business partners in a global network, and very likely have a formal education in foreign languages—a scarce skill set, but one in increasing demand from employers. Scarcity of supply has translated into significant income premiums for those with the relevant skills. Improvements in educational attainment and achievement in the P-16 educational system are essential, as will be improvements in the ability of companies, community colleges, and other institutions of adult learning to more rapidly build the skills of the current workforce.

Rebuilding America's human capital

We believe that the experience of the 22 percent of workers qualified for attractive jobs in industries and occupations where demand and incomes have been growing over the past 15 years points to the root cause of the problem of very sluggish income growth for the majority of the workforce: too few have the skills for attractive jobs and, as a consequence, too many workers are employed in industries and occupations where demand has been falling, incomes have stood still, or both.

The challenge raised by the 27 percent of workers in jobs where demand and incomes are both falling is to equip them with skills relevant to sectors that are set to grow in the United States, not to defend failing employers or shrinking sectors. The 44 percent of workers in jobs for which demand is growing but pay is static pose a somewhat different question: how can rates of pay in these sectors and occupations improve? We do not have clear answers, but our research points to topics worth exploring. First, where does the increased supply of workers for low-skill jobs stem from? How much is it fueled by higher rates of high school dropouts with few skills, setting the lower bound of our country's enormous range of academic achievement, and how much by immigration concentrated on these jobs? Second, what role could be played by our labor market institutions that mediate supply and demand, such as unions or performance pay? For example, performance pay is much more concentrated in higher-earning segments of the workforce. Yet the shift to a service economy means that the value of differential performance among front-line individuals or teams, is higher than ever but not necessarily reflected in their incomes. For instance, nursing aides who can genuinely relate to senior patients may have a material impact on their health and quality of life, but the aides' compensation structure today is unlikely to offer them an appropriate bonus. Third, how can the productivity of human capital in these occupations be improved? This may require operations redesign across sectors like healthcare and retail, with numerous low-paid employees, and further automation.

Finally, how could we bring together these multiple drivers into coherent labor market and human capital strategies? For example, one of the fastest growing businesses is the remote data center industry—which stores and provides instantaneous access to the terabytes of data produced by the rising complexity of information-based business processes and consumer information services. Given rising business costs, there is significant economic pressure to manage remote data centers from lower cost locations outside the US. The economics of data center offshoring can be matched or improved, however, by locating these data centers in relatively low-cost US towns with access to an educated workforce from community college-based technical programs. Companies can also apply "lean" techniques to maximize the productivity of those data centers, reinforced by team-based performance pay for front-line workers whose small innovations, reductions of error rates, and culture of continuous improvement generate significant savings. In this microcosm, such an integrated approach leverages the three elements of the labor market: It harnesses the demand drivers of globalization, SBTC and rising organizational complexity; it appropriates investments in education and skills; and it strengthens labor market institutions that allow middle- and low-income front-line workers to reap the benefits of their contributions to productivity improvements. Can the United States replicate such strategies on a national scale, working across business, government, and the social sector?

Unless the mass of America's workers can develop new skills over the next ten years, the nation risks another period in which growth resumes but income dispersion persists, with Americans in the bottom and middle-earning income clusters never really benefiting from the recovery. The redevelopment challenge is enormous. But the country has met such challenges before. More than a century ago, the United States transitioned from a farm-based to an industrial economy by transforming its education system. During the Second World War, legions of unskilled women were trained in weeks to take the place of factory workers who had been enlisted, and production surged. Many different tactical measures may be needed to meet this challenge head on. But their single focus and priority should be to upgrade the skills of the US workforce as rapidly as possible.

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