



What do civil engineers really think about the state of their profession and the industry? Do you feel that you are in the frontline of the infrastructure renewal boom – or at the brunt of the recession? How has the downturn affected your career? Has it altered your attitude towards work – and towards the wider world?

These were the questions asked by the 2009 New Civil Engineer/Autodesk Civil Engineering Survey. Conducted in May and June 2009, the study drew over 1,000 responses. The results provide a fascinating insight into the profession – your views and your concerns for the year ahead. www.autodesk.co.uk/civil3d

About You and Your Career

In spite of negative economic conditions, an overwhelming 81% of civil engineers remain happy in their jobs, even though a third have received no pay increase over the last year. Of those who did get a salary review, nearly half got increases of less than 5%.

The 'nesting' syndrome, often referred to in times of economic austerity, seems to have emerged among employees in this sector – with professionals looking to hunker down and stay where they are; a mere 12% have changed jobs in the last year and 76% have no intention of looking around.

This represents a significant shift from the attitudes 12 months ago when 65% of civil engineering professionals were open to employment opportunities abroad; in 2009, only a third would be willing to look outside the UK for work. Whilst this will be a reflection of a change in the overseas opportunities available, it is also indicative of a change of attitude in the industry.

In keeping with this attitude, respondents are working hard; 43% are working 30 – 40 hours a week and over a third are working more than 40 hours a week. A quarter of respondents say they are working harder or longer over the last six months. Although there were few redundancies on the part of respondents themselves, almost two thirds say their firms had made redundancies amongst the workforce and 37% were concerned about the stability of their jobs for the near future.

Aside from the direct impact on jobs, the economic recession has taken its toll on the civil engineering professionals' attitudes. Responses indicate an overwhelming note of caution, although the gloom stops short of outright pessimism. With less money to spend, workers feel they're having to pedal faster just to stay in the same place. The increased workload, greater pressure and worries about the future – all this from qualified professionals who are in employment – have made many feel it's like a safety net has been taken away. One respondent declared that he had 'put hope on overdrive'.

“The government should cut bureaucracy and let engineers in the public sector get on with doing the jobs they were once allowed to do.”

“Companies should reduce the use of expensive external consultants and have more internally-trained engineering resource.”

About your Work

The survey unveiled an interesting picture of the impact of the economic downturn on respondents' working lives. Civil engineers say there is less work and also less interesting work, and a lot less choice.

Council budget cuts have had a big impact as work slows and sub-contractors are going out of business. In this atmosphere of low morale, engineering professionals are having to deliver more for the same budget whilst coping with redundancies around them and having to pick up others' work. So what do they plan to do about it?

63% confirm that they are working more efficiently than they were six months ago. To achieve this, 70% say they are managing their time better and 30% say that increasing collaboration is helping gain efficiencies. Almost a third say they've cut down on meetings, relying instead on technology-led 'virtual' meetings. 19% of respondents said they had turned to technology to increase efficiencies.

In the workplace, health and safety remain the principal concern for 61% with costs coming second at 47% - perhaps no surprise there. More thought-provoking is the gain made in those rating 'sustainability' highly; 60% of respondents believed this to be 'fairly' or 'very important', ahead of 'innovation' at 20%.

About the Industry

Nearly half of civil engineers did not consider their industry to be in a particularly good state to weather the recession.

The majority - 73% - thought investing money in infrastructure would be a good way to kickstart the economy.

Respondents were asked what they thought the top issues and trends facing the civil engineering industry over the next 12 months would be and the responses were diverse. Many thought that a lack of new people in the profession would have a negative impact for some time. Others expected more stalling on capital works and fewer contracts starting. Some predicted a rash of takeovers as companies' sharebook values have dropped and others cited more redundancies and job losses as the more prevalent theme for the year ahead.

On a more positive note, many respondents cited environmental and sustainability issues becoming increasingly important and that government spending on infrastructure renewal – however large the budget deficit – would feature highly on the agenda, if only in long-term planning.

Interestingly, nearly two-thirds of respondents thought that building information modelling (BIM) would feature strongly in the year ahead that it would be good for the industry.

To gain a view of the industry's response to the downturn, the survey sought a micro-view by asking respondents what their particular firms were doing to address the situation.

It emerged that whilst many were making sweeping cost cutting measures, such as merging regional offices, tightening up on expenses, putting workers on a four day week, continuing redundancies and freezing the graduate intake, others took a longer and perhaps more comprehensive view. Some reported that their firms had conducted efficiency reviews and were kick-starting internal training schemes rather than shed workers and others were investing in new software to find pragmatic cost-cutting solutions to their design challenges.

World Views

Perhaps unsurprisingly, 65% respondents believe that the prime minister is not doing good job. Indeed, most believe the government isn't managing anything particularly well, particularly relating to energy, climate change and transport, although its management of the economy was considered the least bad.

A whopping 36% were undecided about who they'd vote for in the next election – although the Tories came out top. Most peoples' vote will be unaffected by expenses scandal – it seems that the debacle is viewed as simply another case of government mismanagement, already endemic. It seems most in the industry would rather Barack Obama was running the country, perhaps not least because he is strongly in favour of infrastructure renewal!

In terms of what the Government should do to reduce the budget deficit, 71% don't believe road user charging is an appropriate action. In contrast, 81% said more public money should go into green technology to boost economy. The overwhelming themes in suggestions for replenishing the fiscal pot was to run a leaner government – "Run it like a business" – target the financial companies with windfall penalties and, more than all of these, target benefit thieves:

"Aside from trying to plug the gap in finance, the Government should take prompt action to drastically reduce the running costs of GB plc, including our single largest expense, the social security and benefits budget."

"Government should reduce waste in the public sector - run it like a business."

"It is not acceptable for banks in a so-called crisis to be bailed out by the tax payer and then declare multi-million pound profits."

"They should set up a ten year plan to reduce UK debt down to £25 billion, so that we're in a healthy position for the future."

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ABOUT THE CHANGES – Comparing 2008 survey with 2009

To compare this year's results with those of the 2008 survey is to track changing moods in a shifting landscape. This time last year, the downturn was still just a threat to most firms – the 2009 survey records the reality.

Tellingly, whereas only 14% in 2008 had forgone any pay rise during the past twelve months, in 2009 this had risen to a third with only a handful having changed their jobs during the year. Last year concerns highlighted issues such as the status of civil engineers (were they undervalued?), this year it focused on worries about job security, increased workload and low morale.

However, there is some good news. A sharper focus on improving efficiency, time management and collaboration means the profession could emerge a far better and more effective operation than it was a few years ago. Also, sustainability – deemed fairly low on the priority list last year, has moved up the agenda with well over half rating it as important.

In all, the results form an interesting documentary on attitudes and trends. Unfortunately, without a crystal ball, we can only wait and see what the future will tell us.

