# One Solution to the IT Labour Shortage

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The labour shortage in information technology is becoming one of the biggest challenges for the software industry. Quotes for the current shortage in the US alone range from 200,000[1] to over 630,000[2]. Assuming the low end of 200,000 and an average revenue base of $100,000 per employee[7], the associated loss to the industry is $20 billion. Most suggestions to solve the problem deal with the supply side, i.e. increasing the number University graduates, immigration, retraining, etc.

We believe that this approach will help but calculations show that it cannot be the whole solution. It is also economically unattractive. Other industry segments have learned this lesson long ago and have increased productivity and hence their margins.

This paper describes the approach to an experiment with several software companies to increase productivity in a measurable way. The pilot project draws on our experience from over 60 software development process assessments and publications on productivity and software development cost over the last 20 years.

The debate about the skills shortage in the IT industry will likely gain momentum as the gap of demand over supply widens. We also anticipate that the issue of quality software will find increased attention with the possible failure of some systems due to the Year 2000 bug. It is time that the software industry awakes to the need to adopt more professional approaches to software development. Based on preliminary results, we suggest that these improvements can yield the dual benefit of higher quality software and better productivity.