

Manpower Fluctuations Give Engineers Grief

The instability of the engineering profession is graphically represented by the Deutsch, Shea and Evans High Technology Recruitment Index (HTRI). Every engineer or person considering engineering as a career should be familiar with this index and the dramatic fluctuations in the demand for engineers.

The HTRI is a national indicator of technical manpower demand and based on a monthly count of recruitment ads directed to four-year or more degreed engineers and scientists. D, S & E is a national recruitment advertising agency that has been conducting research on employment, recruiting and other aspects of human resources since 1950. They have maintained the Index for 30 years.

We have included two additional reference lines and the associated comments from studies by Robert Rivers. Rivers is a Fellow of the Institute of Electrical and Electronics Engineers, a past member of their Board of Directors and a member of IEEE's Manpower committee. Rivers is also the chairman of the Manpower committee of the American Engineering Association, Inc. and publishes his own "Engineering Manpower Newsletter."

Comments by Rivers highlight the periods of economic insecurity (unemployment) whenever the Index is below the 130-reference line. The curve also shows periods when our young engineering graduates were not able to find engineering jobs because the demand was depressed. Many were never able to enter the profession for which they studied so hard.

The curve shows less than 16% of the 30-year period from 1960 to 1990 when there was room for new engineers without displacing older engineers or a manpower balance. The rest of the 30 years or 84% of the time, there was room for new engineers only if older engineers were displaced or a surplus prevailed.

Twenty five percent (25%) of the time there was no room for new engineers and older engineers were still being displaced or a large surplus existed. The manpower unbalance is derived from reduced demand, recruiting foreign students by the U.S. engineering schools, excessive degree production and the importation of foreign engineers.

The excessive supply has been produced by congress dumping money into the colleges for engineering degree production and the passage of Bills that increase immigration for high tech people. This has been and is promoted by Engineer Shortage Propaganda (ESP), erroneous mathematical models that only show manpower shortages and biased reports. Short peak demand periods cannot be used exclusively in measuring manpower needs.

One must consider career employment over a 40-year lifetime. Maintaining an excessive manpower surplus is expensive, wasteful and detrimental to the profession and U.S. engineering capabilities. Maintaining a surplus with imported engineers has a severe and detrimental effect on job opportunities that provide skill enhancement for members of the U.S. engineering community.

There are good reasons for addressing the issue of fluctuating engineering manpower demand. First, this effects the lives and careers of all engineers, recent graduates and students that may choose engineering as their field of study. Second, this indicates that the engineer shortage reports were false and the shortage shouters were wrong. Third, this indicates budgets can be shifted from producing a surplus of engineers to maintaining a fully utilized and productive engineering community and creating a manpower balance.

The D, S & E, Index sheds light on the employment situation. Unemployed engineers and engineering graduates that cannot find engineering jobs may find some comfort in the assurance that they are unemployed for reasons beyond their control. They are facing these difficulties, not because they are bad engineers or poor students, but because there is a drastic manpower surplus created through deception by members of the U.S. government and the college empire.

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Deutsch, Shea & Evans High Technology Recruitment Index

* NOTES FROM ANALYSIS BY ROBERT RIVERS, 1975

(Seasonally Adjusted; Base: 1961 = 100)

