

Proud to be a Surveyor

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With regard to the interaction between surveying and engineering my preference is that we work together and build on our strengths (be inclusive) rather than attempting to define either sphere of professional activities in an exclusionary manner. Regardless of how that discussion plays out, I also remained convinced that formal education is essential to the growth and vitality of the surveying profession and that a spirit of respect and tolerance should prevail even when we agree to disagree.

In years past, surveying was considered part of civil engineering. That attitude dominated throughout the USA when I started teaching at the Oregon Institute of Technology in 1980. At that time, the OIT surveying degree was ABET accredited as a 4-year Civil Engineering Technology Degree (Surveying Option). Due to the historical difference between engineering and technology accreditation (most typically the level of math and physics required), many state boards of licensure would not grant the OIT surveying graduate the same status as an engineering degree for an engineering graduate. We addressed that problem by designing a 4-year curriculum and implementing a Surveying Program granting a degree simply called “BS Surveying.” The degree did not have the word “Land” or the word “Technology” in the title. Our program was accredited by ABET as an Engineering-Related program in 1984. I have, ever since, been proud to lend my support to the emergence of surveying as a separate distinct profession. Please note that, through the efforts of many talented/dedicated people, we in the surveying profession have come a long way. But for various reasons, collectively, we have not yet reached the plateau where surveying is considered just as equal as engineering. That why I was so adamantly opposed to the Surveying Department at NMSU being merged with Engineering Technology in 2006. The surveying profession deserves better!

Of course, we’ve encountered numerous obstacles along the journey of emerging as a distinct profession. Many accomplishments can and should be cited. But, in my opinion, the surveying profession has not yet reached that critical mass that permits us to thumb our collective noses at other disciplines – engineering, photogrammetry, GIS etc. I wholeheartedly support the concept of licensure and am convinced that the checks-and-balances already in place can, in fact, serve to protect the interests of the public. But those policies and actions need to be compatible with at least two concepts in logic (see Wikipedia):

Necessary and sufficient: This is the same as saying some condition is true if and only another condition exists. With regard to the NM Practice Act, it is necessary for one to be licensed to offer surveying services to the public. The erroneous presumption is that having a surveying license is sufficient to establish competence and/or to protect the public. It is just as erroneous to apply that logic to engineering. Protecting the public (our ultimate goal) goes beyond either.

Cause and Correlation: We collect and evaluate evidence which leads to some conclusion. It is unfortunate if we overlook important evidence or fail to recognize a legitimate outcome based upon the evidence. The reverse is also important. A quote from Wikipedia is “The opposite belief, *correlation proves causation*, is a logical fallacy.” Just because an engineer screws up a survey does not necessarily mean that engineers should be prohibited from performing engineering surveys. The real issue should be that anyone (including licensed surveyors) who screws up a survey should be held accountable for same.

Surveyors are not the only professionals using spatial data. I am also proud to be a civil engineer. But, as surveyors, we need to hone our knowledge and skills and devote the effort needed to compete successfully with other professions on a level playing field. We do that by learning how to learn and by applying our problem-solving skills in a wide variety of situations. Trying to build our professional reputation on the foibles of others is probably as futile as attempting to legislate morality.