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## Enrollment trends in American soil science classes: 2004-2005 to 2013-2014 academic years

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Studies indicate that soil science enrollment in the USA was on the decline in the 1990s and into the early 2000s (Baveye et al., 2006; Collins, 2008). However, a recent study indicated that in the seven years from 2007 through 2014 the number of soil science academic majors, at both the undergraduate and graduate levels, was on the increase (Brevik et al., 2014). However, the Brevik et al. (2014) study only looked at the number of soil science majors, it did not look at other important trends in soil science enrollment. Therefore, this study was developed to investigate enrollment numbers in individual soil science classes. To investigate this, we collected data from ten different American universities on the enrollment trends for seven different classes taught at the undergraduate level, introduction to soil science, soil fertility, soil management, pedology, soil biology/microbiology, soil chemistry, and soil physics, over a 10 year time period (2004-2005 to 2013-2014 academic years). Enrollment in each individual class was investigated over five (2009-2010 to 2013-2014) and 10 (2004-2005 to 2013-2014) year trends. All classes showed increasing enrollment over the five year study period except for soil physics, which experienced a modest decline in enrollment (-4.1% per year). The soil chemistry (23.2% per year) and soil management (10.1% per year) classes had the largest percentage gain in enrollment over the five year time period. All classes investigated experienced increased enrollment over the 10 year study period except soil biology/microbiology, which had an essentially stable enrollment (0.8% enrollment gain per year). Soil physics (28.9% per year) and soil chemistry (14.7% per year) had the largest percentage gain in enrollment over the 10 year time period. It is worth noting that soil physics enrollments had a large increase from 2004-2005 through 2009-2010, then dropped to and stabilized at a level that was lower than the 2009-2010 high but much higher than enrollment levels through the first three years of the study. This explains soil physics being the only class to show an enrollment decline over the five year trend while showing the greatest percentage gain over the 10 year trend. Overall, the individual classes showed 12 examples of increasing enrollment, one example of stable enrollment, and one example of declining enrollment. These results were interpreted as indicating that enrollment in soil science classes at American universities was on the rise over the time period of the study.

## References

Baveye, P., Jacobson, A.R., Allaire, S.E., Tandarich, J.P. and Bryant, R.B., 2006. Whither goes soil science in the United States and Canada? Soil Science 171, 501-518.

Brevik, E.C., Abit, S., Brown, D., Dolliver, H., Hopkins, D., Lindbo, D., Manu, A., Mbila, M., Parikh, S.J., Schulze, D., Shaw, J., Weil, R., Weindorf, D., 2014. Soil science education in the United States: history and current enrollment trends. Journal of the Indian Society of Soil Science 62(4), 299-306.

Collins, M.E., 2008. Where have all the soils students gone? Journal of Natural Resources and Life Sciences Education 37, 117–124.