



Case study: MAPPS lawsuit

Version 0.1 • January 13, 2009

Authors: David DiBiase (Dutton e-Education Institute, Penn State University), Francis Harvey (Department of Geography, University of Minnesota), and Dawn Wright (Department of Geosciences, Oregon State University)

Reviewers: Michael Davis (Center for the Study of Ethics in the Professions, Illinois Institute of Technology), Chuck Huff (Department of Psychology, St. Olaf College), and Matthew Keefer (Division of Educational Psychology, University of Missouri-St. Louis).

This work was supported by National Science Foundation grant # GEO-0734888. See below for terms of use.

Case (for presentation to students)

Is GIS a profession comparable to others in the geographic information science and technology, such as Land Surveying and Photogrammetry? Some definitions of “profession” (e.g. Ford and Gibbs 1996) include mandatory certification and/or licensure of practitioners as well as formal education by higher education programs that are specifically accredited to grant specialized professional degrees. Other definitions (e.g. Pugh 1989) include no such requirements. Voluntary professional certification is available, but not required, for GIS practitioners. Certification and licensure of professional surveyors and photogrammetrists is required in the U.S., however. All 50 states have legislation establishing licensure review boards that oversee application procedures and examinations and confer licenses to practice professional surveying. Bruce Joffe (2001) explains that although the laws vary, most resemble the “Model Law” promulgated by the National Council of Examiners for Engineering and Surveying (NCEES 2001). The Model Law was revised in 2000 in response to recommendations by a Task Force of industry representatives concerned with bounding the scope of licensed practice. In addition, a set of ‘Model Rules’ was developed to advise legislatures and licensure boards that mapping activities should be excluded from definitions of surveying practice. Still, Joffe reports that a literal interpretation of most of state definitions of survey practice would require that most professional uses of geospatial technologies, including GIS software, be supervised by licensed surveyors. And while many surveyors may acknowledge that much of GIS&T is beyond the scope of their licensed practice, nothing in the state legislation permits such a flexible interpretation (Joffe 2001).

To date, instances of legal actions against individuals accused of practicing GIS without a license are few and anecdotal (e.g. Zimmer 2003). However, a high-profile federal court case challenged the way in which the U.S. government has implemented a policy that guides its procurement of mapping products and services (MAPPS et al. vs. United States 2006). The policy, known as the

Brooks Act, stipulates that when federal government agencies request bids for architectural and engineering (A-E) services from private sector vendors, they must take vendors' qualifications into account, rather than simply awarding contracts to the lowest bidder. Included in the Brooks Act's scope of A-E services is professional surveying, the practice of which (as defined in state licensure legislation) includes "mapping services." The lawsuit, filed by the Management Association of Private Photogrammetric Surveyors (MAPPS) and three kindred engineering societies, objects to the current practice of the government's Federal Acquisitions Regulation (FAR) Council, whose interpretation of "mapping services" has excluded:

. . . mapping services that are not connected to traditionally understood or accepted architectural and engineering activities, are not incidental to such architectural and engineering activities, or have not in themselves traditionally been considered architectural and engineering services shall be procured [on the basis of price as well as technical qualifications of bidders for federal contracts].
(FAR Council 1991)

The MAPPS litigation insisted that the FAR Council adopt "qualifications-based selection" (QBS) in the procurement of any and all mapping services, as a literal reading of the Brooks Act requires. Implicit in the suit is a claim that the best-qualified bids will be from registered A-E firms in which licensed professionals supervise the provision of mapping services, ostensibly as a means to protect public health, safety, and welfare.

The ultimate objective of state licensure is to protect the public from harm caused by the incompetent providers of certain goods and services. In the interest of such protection, US states have enacted licensure laws for many professions, including medicine, law, and some engineering disciplines. Francis Harvey (2003) suggests numerous scenarios in which public safety might be jeopardized by incompetent or malicious use of geospatial technologies. He also points out, however, that the leading professional organization of computer engineers rejected proposal to certify or license practitioners because no test could ensure that public health and welfare would never be endangered. While the general question of whether licensure is an effective means of protecting public health, safety, and welfare is moot in the context of architecture and engineering, it remains debatable in the context of GIS&T. Curt Sumner, executive director of the leading professional society of land surveyors, has suggested that "it may take a case in which harm is caused on a large scale before the matter can be rationally discussed" (Sumner 2007, 71).

Professional societies representing constituencies other than photogrammetric firms interpreted the MAPPS suit as an attempt to claim authority over substantial portion of professional practice in the GIS&T domain. Their reaction was swift and fierce. In cooperation with URISA, GISCI, GITA, and UCGIS, AAG played a leading role in preparing an *amicus curiae* (friend of the court) brief that argued that:

Public safety is not compromised . . . when the government procures mapping services that are not traditionally performed by or associated with A-E firms, that do not relate to legal rights in and to real property, and that require subject matter expertise that architects, engineers, and surveyors do not possess. (AAG *et al.* 2007)

While awaiting the court's decision, both the plaintiffs and the *amici* launched aggressive public relations campaigns. In a document entitled "QBS Litigation: Myth vs. Fact," MAPPS denied that the intent of its suit was to restrict federal mapping contracts to registered A-E firms, or to "control the GIS profession" as the *amici* accused (MAPPS 2007, 4). An editorial in AAG's monthly newsletter that explained its opposition to the suit was titled "The Plan to Hijack Mapping" (Richardson 2007). Both organizations solicited contributions from members to help offset their legal expenses.

On June 15, 2007, the US District Court for the Eastern District of Virginia found against MAPPS and its fellow plaintiffs, in part because they failed to demonstrate that their constituents were harmed by FAR procurement policies. While the case was decided on the matter of standing, rather than on its merits, the court did note that:

. . . the record unambiguously reflects that the provision of 'mapping' services in the modern marketplace includes a much broader scope of work than the traditional mapping work of land surveyors. (Ellis 2007)

Reflecting on the suit and its outcome some months later, Sumner (2007, 71) speculated that opposition to the lawsuit may have been "intended to incite the GIS and computer mapping industry to become more active in the political arena." Although the MAPPS lawsuit was unsuccessful, there is no doubt that it and kindred professional organizations will continue to lobby Congress and state governments on behalf of legislation that benefits their constituents. As the geospatial industry grows increasingly large and lucrative, more and more livelihoods are potentially affected by government regulations that determine who is eligible to practice GIS. It remains to be seen whether AAG, whose constituency consists largely of academic geographers, will continue to prevail in the political struggle against the regulation of GIS&T in the current age of accountability.

Acknowledgement

This case is drawn from DiBiase, David (2008). Scoping GIS for education: Making sense of academic and practitioner perspectives. *Geography Compass* 2(5), 1506-1528.

References

Association of American Geographers, et al. (2007). Amicus curiae brief, MAPPS et al. vs. United States Civil action no. 1:06cv378 United States District Court for the Eastern District of Virginia.

Ellis, T. S. (2007). Memorandum opinion, Management Association for Private Photogrammetric Surveyors et al. vs. United States Civil action no. 1:06cv378 United States District Court for the Eastern District of Virginia.

Federal Acquisition Regulation Council. (1991). Federal acquisition regulation 48 C.F.R. Part 36.601-4. Retrieved on 28 December 2007 from

http://www.acquisition.gov/far/current/html/Subpart%2036_6.html

Ford and Gibbs 1996

Harvey, Francis J. (2003). The significance of public safety for GIS professional licensing and certification. *URISA Journal* 15(1), 15-20. Retrieved 28 December 2007 from

<http://www.urisa.org/files/Harveyvol15no1-2.pdf>

Joffe, Bruce (2001) Surveyors and GIS professionals reach accord. *Surveying and Land Information Systems* 61(1), 35-36

Management Association for Private Photogrammetric Surveyors et al. vs. United States (2006). Civil action no. 1:06cv378 United States District Court for the Eastern District of Virginia.

Management Association for Private Photogrammetric Surveyors (2007). QBS litigation: myth vs. fact. Retrieved 28 December 2007 from <http://www.mapps.org/supportingfiles/documents/QBS-QA.pdf>

National, Council of Examiners for Engineering and Surveying (2001) Model law. *Surveying and Land Information Systems* 61 (1), 5-23.

Pugh, Darrell 1989?

Richardson, Douglas (2007). The plan to hijack mapping. *AAG Newsletter* 42(3), 2, 5.

Sumner, Curt (2007). Reflections on “the lawsuit” was it a procurement issue or a licensing issue? *American Surveyor* December pp. 70–72. Retrieved on 28 December 2007 from <http://www.amerisurv.com/content/view/4591/>

Zimmer, R. J. (2003) In line with GIS: GIS and surveying issues, Part 2. *Professional Surveyor* 23 (1). Retrieved 5 July 2008 from <http://www.profsurv.com/archive.php?issue=72&article=1015>

Resources for teachers

Suggested discussion points

1. Which of the GISCI Rules of Conduct pertain to this case?
2. Does the MAPPS case pose a dilemma between society's concern about protecting public health, safety and welfare and individual practitioners' right to make a living?
3. Should GIS&T degree programs in higher education be accredited, as engineering programs are? Academic freedom is a core value of higher education. The faculty members who design and teach GIS curricula tend to be affiliated with disciplines (especially Geography) that are not subject to program-specific accreditation. GIS faculty tend to be skeptical about accreditation in part because they perceive it as a regulatory mechanism that impinges on academic freedom. However, stakeholders beyond the academy have a legitimate interest in assuring that the education students receive is effective and relevant. How may academic freedom and accountability be reconciled?
4. Are GIS professionals duty-bound to be informed about legal issues like the MAPPS case?
5. Prepare a response to ASPRS' "Draft Guidelines for the Procurement of Professional Services" (<http://www.asprs.org/guidelines>) (see Epilogue below)

Relevant GISCI Rule of Conduct

Section I, Number 4: "We shall hold paramount the safety, health, and welfare of the public."

Section II, Number 10: "We shall undertake to perform professional services only when we are qualified by education, training, or experience in the specific technical areas involved. Collaboration with other qualified personnel shall be undertaken if deficiencies are identified."

Epilogue

In October 2008 the Procurement Committee of the American Society for Photogrammetric Engineering and Remote Sensing (ASPRS) published "Draft Guidelines for the Procurement of Professional Services" for public comment (<http://www.asprs.org/guidelines>). The procurement Committee included representatives of MAPPS and ACSM along with ASPRS members appointed by the Society's Executive Director. The draft document defines "professional services" in the context of photogrammetry and "related geospatial mapping services" and promotes qualifications-based ("QBS") procurement. Of the associations that contributed to the *amicus curiae* brief in the MAPPS case, URISA submitted a response to the ASPRS' call for comments (http://www.urisa.org/files/ASPRSProcurement1_2009.pdf).

Terms of use

Authors license this work under the Creative Commons Attribution-Noncommercial-Share Alike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA



DRAFT