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The History of the GISCI Certification Program

The Beginning

Prior to the GIS Certification Institute (GISCI), the idea of geographic information systems (GIS) professional certification had been discussed for decades. Confined to backrooms and hotel bars the issue gained and lost momentum at various conferences and industry events. It had strong supporters and detractors on both sides. To many it was inevitable. Most agreed it was coming. The only questions were *How?, When?,* and, *In what form?*

Professional certification is the endorsement of one's expertise by a credible 3rd party (Barnhart 1997). Ever since individuals banded together working on geographic and land information systems there have been conversations about what constitutes a professional. In 1993, Nancy Obermeyer, GISP wrote an article for the Urban and Regional Information Systems Association (URISA) *Journal* entitled, "Certifying GIS Professionals: Challenges and Alternatives" (Volume 5, Number 1: Spring 1993). This groundbreaking article looked at the potential for certification in the GIS field. Her article won the URISA Horwood Critique prize that year and interest in the topic trickled to various corners of the geospatial community.

In the late 1990's, URISA developed a survey for its membership. It asked questions about what programs and initiatives URISA should pursue over the next year. The overwhelming response was professional certification. URISA members wanted URISA to look into the ramifications of professional certification for GIS users.

In 1997, the URISA Board of Directors created a certification committee (appendix A) to look into the feasibility of creating a certification program. The

first Chair of the URISA Certification Committee was Nancy Obermeyer, GISP. The committee first looked at the idea of developing an examination. These efforts stalled as little agreement could be made on content. GIS was a diverse field, using different software platforms, and spanning multiple disciplines. Practical knowledge for one professional could be vastly different from another professional. This lack of consensus caused the first years of the URISA Certification Committee to yield few results.

A New Method

In 2001, Certification Committee members William Huxhold, GISP, Karen Kemp, GISP, and Lyna Wiggins developed an alternative method for certification. The method was presented to Certification Committee members and interested parties at the 2001 URISA Conference in Long Beach, CA. Huxhold, Kemp and Wiggins wanted to develop an alternative approach to examination-based certification. The notion of a GIS Professional was stripped to its core. The goal was to find a method that would target shared elements of successful GIS practitioners.

The Huxhold, Kemp and Wiggins method started with basic assumptions. A well-rounded GIS professional should have achievement in ***education***, ***experience***, and ***contributing*** back to the profession. From these assumptions, benchmarks were developed. These benchmarks were a combination of where the GIS community was currently at, and where Huxhold, Kemp, and Wiggins envisioned it going. They developed the following:

- **Educational Achievement:** A combination of formal university GIS-related coursework and informal GIS-related training/educational conference experience.
- **Professional Experience:** 4-years in GIS application and/or data development (or equivalent).

- **Contributions to the Profession:** Modest involvement with publications, professional associations, conference participation, workshop instruction, awards, etc.
- **Code of Ethics:** Appropriate and ethical guidelines for professional practice and conduct.
- **Recertification:** A certification cycle that requires further earned credit in the benchmark areas to ensure proficiency.

These benchmarks signify the point when someone should be considered a GIS professional. Through the recertification and ethics requirements, it also guarantees a person can remain a GIS professional. The challenge was trying to find an alternative method to an examination that would allow professionals to document these benchmarks had been achieved.

The result was a voluntary, self-documented, independently verified, tiered, point-based system. Points would be earned in three different areas: experience, education, and contributions to the profession. There would be five tiers of GIS professionals ranging from a *GIS Master* to a *GIS Novice*. Points would determine an applicant's level. As his career progressed and further points were earned he could advance to the next level.

Some on the Committee feared a tiered approach would establish a GIS hierarchy. This hierarchy could limit the opportunity for advancement and develop an industry-wide sense of elitism. An alternative approach was also created. This employed the same guiding principles but used a binary, point-based system where applicants either qualified or did not. Most certification programs use a binary approach and examine the **minimum** standards for practice.

In early 2002, the URISA Board asked the Certification Committee to present both point-based plans to the professional community. The binary and tiered

plans were posted on the URISA website. Huxhold had succeeded Obermeyer as chair though she remained active on the Committee. Both methods were laid out and the community was invited to offer comments. There were two review periods. After the first, the Committee felt the professional community was more comfortable with the binary method. The method was then expanded and clarified, using the public's comments, and a new version was posted. This new version was commented on, altered by more public comments, and finally turned into the program that was piloted to the Georgia URISA Chapter in 2003. It contained the foundation for the GISCI certification program.

Triad Progress

During these two years, the Committee met feverishly. They divided themselves into groups of three called *Triads*. It was priority number one to define the terms and categories of the program. Triads were tasked with filling in the details for each of the three categories now called *Educational Achievement, Professional Experience*, and *Contributions to the Profession*. The purpose of these small groups was to identify the essential components of each achievement area. The work done by the Triads had to answer every question, large or small, that was asked about the program.

Triad members:

Educational Achievement

1. Suzanne Wechsler
2. David Dibiase
3. Nancy Obermeyer

Professional Experience

1. Anne Johnson
2. Barry Waite
3. Josh Greenfeld

Contributions to the Profession
1. Lynda Wayne
2. Al Butler
3. Lyna Wiggins
With Rebecca Somers providing auxiliary support

It was the role of the Triads to make each achievement area match the benchmarks. The foundation was there, but the program had to be specifically nuanced to meet the needs of a variety of professionals with different backgrounds. It became obvious that a level of flexibility needed to be introduced into the program. **Flexibility was, and will continue to be, the guiding principle.**

Educational Achievement

Benchmark

A combination of formal university GIS-related coursework and informal GIS-related training/educational conference experience.

When the binary certification method was selected, the Education Triad focused on the minimum educational requirements for entry-level GIS professionals, along with the minimum educational activity that would be required for recertification. They proposed that certification come from a total number of points, allowing an individual to make up a deficiency in one area with points from another. This "transferability" of points between categories added flexibility as long as overall minimums in each category were met.

In terms of minimum qualification for initial certification, members of the Triad agreed that entry-level GIS professionals must earn 30 points. This is equivalent to the value of a baccalaureate degree in a related field, an associate degree with additional GIS coursework, or an equivalent combination of credit and non-credit courses supplemented with conferences and workshops. They recognized

that such a degree did not ensure individuals possessed the know-how required to be effective GIS practitioners. What a four-year college education does provide is the opportunity for individuals to develop the intellectual maturity required to approach problems systematically and critically, as well as the communication skills needed to articulate not only the capabilities but also the limitations of geographic information technologies. The Triad felt society deserves GIS professionals who are broadly educated.

At first, education was weighted equally with experience. Over time, the sentiment of the Committee was to give experience more prominence. The Triad agreed. While formal educational does not contribute as much as experience to a GIS professional's qualifications, it has the potential to be a valuable means of acquiring the knowledge, skills, and dispositions that individuals need to be successful in any profession.

The Triad encouraged practitioners to seek out continuing education opportunities while encouraging education providers to build substantive GIS programs with quality courses. They were steadfast in their belief that GISCI certification should not be seen as an issue of accreditation, which is a subject for other organizations (UCGIS, AAG, etc.)

Course Work

They loosely defined a list of centralized courses for certification candidates. The Triad understood that GIS courses were not standardized or accredited at the time. It therefore could not provide a complete list of course titles that **must** be included in the application. Instead of requiring course titles, they shifted the emphasis to course subjects. Subject matter for applicable courses must be found within the *UCGIS Body of Knowledge*. This working document outlines the necessary components for a degree program in GIS. If GISCI certification decides to pursue an examination it would stem from the UCGIS Body of Knowledge.

Vendor training (ESRI, Intergraph, Bentley, etc.) and courses will be counted as well. As the Body of Knowledge matures, vendor training and non-profit workshops (URISA, GITA, ASPRS, etc.) will need to demonstrate their subject matter fits into the curriculum.

Student Activity Hours

The Triad understood there was a vast difference between a 3-credit university course and a half-day workshop. However, both educational opportunities cannot be discounted. Although they offer more comprehensive content, university courses can be time and cost prohibitive. The timeliness and accessibility of a workshop are more applicable to a working professional. The Committee used the concept of *student activity hours* so that both types of activities would earn credit. Student activity hours are contact hours a student has with the material and instructor. Whether it be a semester-long class, workshop, or online seminar a student spends varying amount of time absorbing the subject matter. The longer the contact time, the more points are earned.

The Triad started with a typical university course and worked backwards. Most universities award credits in this manner. A 3-credit, 15-week university course means that student spends about 135 hours in class. The Triad concluded this amount should be divided by 40 to arrive at a fair allowance of points (3.38). This 40 hours = 1 point conversion was used for all educational opportunities that involve students absorbing a structured curriculum. Therefore, a weeklong workshop is worth 40 contact hours divided by the set-value of 40 or 1 point. An 8-hour workshop is worth 0.2 points. All educational providers need to document are the number of hours a student spends with the material. The applicant can figure out the rest.

Degrees

The Triad made a bold move by allowing an individual with an unrelated major to earn points towards GISCI certification. The Triad knew that GIS professionals enter the field from a variety of different disciplines. An applicant who became a GIS professional later in life should not be penalized for having a degree in a corollary, or even, unrelated field. These applicants are not restricted from becoming GISPs but are expected to complete certain classes/workshops/training related to GIS or geospatial technology in order to be certified. Applicants who have a degree in GIS or a related field do not earn any more credential points than those with an unrelated credential. However, they do earn considerably more course points. All relevant course work that went into a degree program may also be claimed. This "double-counting" rewards professionals with educational backgrounds in geospatial technology.

Theses and graduation projects are categorized in the Education area. The triad came to the decision that theses are simply a requirement for a degree and cannot be listed as a separate publication. With few exceptions, all candidates must include letters or transcripts with their portfolios to help document past activities.

Conference Attendance

Conference attendance points are awarded in recognition of the valuable informal learning afforded by participation in meetings and conferences sponsored by professional societies and regional and local user groups. Attending conferences can be the most enriching activity professional engage in. However, not all attendees to conferences are created equal. The Committee wanted to recognize the professionals who interact, present and share ideas. Conference attendance points are left in the program but their value was reduced to 0.1 points per day attended. This makes them less valuable for initial certification but extremely valuable for recertification. Conference attendance will

be the most accessible way for certified GIS professionals (GISPs) to educate themselves between certification cycles.

Documentation for conference points posed a significant problem. Before the GISCI program, retaining documentation for past meetings was unnecessary. The Triad concluded that only conference attendance claims did not have to be documented during a 5-year “Transition Period” ending January 1, 2009. The Triad felt documentation would be far too difficult to obtain for these events. Documentation is not required but GISCI performs background checks to ensure accuracy.

Professional Experience

Benchmark

4-years in GIS application and/or data development (or equivalent).

The Experience Triad urged that on-the-job training and education is where most GIS professional learn the tools of the trade. Early on, even the Academics on the Certification Committee conceded that professional experience should be the most heavily weighted achievement area. The experience benchmark was divided into two parts. The first part considered the duties GIS professionals perform at their job. The second part considered how many years they have been performing those duties. With this in mind, the Triad set out to develop a point structure that included both elements of job function and duration.

Job Function

Similar to GIS degrees, job titles are not standardized. A GIS Analyst at one firm may be called a GIS Technician, Specialist, Coordinator, Manager, User, Drafter, Land Records Supervisor, etc. at another. It was clear that awarding points for job titles would not be possible. A Drafter may perform all the duties of a GIS Analyst but his organization may not have caught up to the changing times in geospatial technology. The key would be determining what a GIS Analyst,

Technician, Drafter, etc. does. In 2000, at the same time URISA was still debating the idea of an examination-based certification program Huxhold was completing a landmark publication entitled *Model Job Descriptions for GIS Professionals*. This publication analyzed hundreds of job descriptions and classified ads and organized them into eight clearly defined titles.

- GIS Manager
- GIS Coordinator
- GIS Specialist
- GIS Analyst
- GIS Systems Analyst/Programmer
- GIS Technician
- GIS Director (GIO & CIO)
- GIS User (heavy & light)

These titles, and the duties associated with them, would form the backbone of the professional experience category. The Triad knew that applicants needed to document what they did at each job. Regardless of their title, their GIS-related duties would be the key to awarding and classifying points. The Triad also knew the duties performed by a GIS Analyst were often outside the reach of a GIS Technician. It became clear that the section needed further clarification.

In 2002, the Triad returned to the neglected concept of levels. The notion of a hierarchy of GIS professionals, that was once feared, was now the solution for the most essential part of the certification equation. Although certification would be binary and egalitarian, the method for earning points would be rigidly structured. The Triad developed three levels along with a bonus level for supervisory experience. The top level would earn more points than the second and so on and so forth. If the duties an applicant performs fall into the top tier, they would earn more points than someone who fell into the second tier regardless of his job title. The more difficult and challenging the duties, the more

points were earned. Therefore, someone who does the work of a GIS Analyst, according to Huxhold's book, would be rewarded for doing the work of a GIS Analyst no matter his actual job title.

As the Triad continued to work on the tier system it became clear that they were lacking the fundamental element of flexibility in the experience category. Triad members knew that a GIS professional does work from all three tiers. A GIS Analyst may do the work of a GIS Technician from time to time, and vice versa. The system needed to be flexible to recognize professionals who break the constraints of usual job function in order to complete tasks. The answer to the lack of flexibility was the Full Time Equivalency Percentage (FTE%).

The FTE% was a way for applicants to divide their workload, for the duration of their employment, among the three tiers. They would determine what percentage of their time went into each of the three tiers, multiply it by the duration of employment and by the number of points per tier. These calculations would provide subtotals. The subtotals would then be added to together and that would provide the total amount of points for that position. For example, if a GIS Manager spent part of his time doing database development, part of his time generating maps, and part of his time using GIS for queries, reports and information, he would break his time into percentages and multiply across each tier.

Position Duration

The easier part of the benchmark to determine was the duration of employment. At first, the committee considered a daily appraisal but felt that was far too cumbersome for the applicant and the reviewers. The second method was to use 1 year. Obviously, applicants don't work for exactly one year at each position. Some work eight months, some 12 years and eight months. Finally, the Committee settled on using the years **and** months employed as the standard. If

someone were employed for 4 years and two months, they perform all calculations using 4.17 (4 + 2 months/12 months).

Documentation

The final question for the Triad was how to document professional experience. Naturally, the résumé contained all this information. GISCI requires that a résumé be submitted that goes into exhaustive detail about the duties and duration of all positions claimed. The résumé allows applicants a chance to detail what they actually do at their positions. The second form of documentation is the supervisor letter. This letter needs to be signed by the applicant's immediate supervisor to ensure that the experience claims made within the portfolio are valid. This letter makes sure applicants are forthright about their current positions, they are in good standing with their supervisors, and the past positions are valid because it was the responsibility of the supervisors to make sure. Applicants do not need to obtain letters from all past supervisors (although they will be accepted) because many companies merge, go out of business, or change ownership. Also, many supervisors leave for other positions. GISCI performs employment date verification checks with past employers to ensure accuracy.

The Grandfathering Provision

As the program came together, there was a growing concern that long-standing GIS professionals may not be able to apply because of the education and contribution standards. Although, these professionals have a wealth of experience points, they would not have had formal education programs steeped in GIS and geospatial technology. Ignoring a professional with 15 years of experience, because he did not have the requisite degree would be a mistake. Obviously, this professional has ability because he was able to maintain a job in GIS for a great length of time. It became clear that the program needed a way to recognize these professionals. The Grandfathering Provision recognizes that GIS Professional Certification set new standards for education and contributions, and

that some established professionals' careers might not have conformed to these levels. New and future GIS professionals seeking certification will be expected to attain these education and contribution standards. However, the grandfathering period of five years provides the opportunity for established professionals to obtain certification based solely on their experience.

Candidates who qualify for grandfathering then, have worked for:

- 8 years in a GIS position of data analysis, system design, programming, or similar position.
  OR
- 13 1/3 years in a GIS position of data compilation, teaching, or similar position.
  OR
- 20 years in a GIS User Position
  OR
- A combination of the above positions that results in a total of at least 200 professional experience points.

Grandfathering Provision applicants are not required to complete the Education and Contributions sections of this application but are encouraged to do so. GISCI performs employement verification checks to determine accuracy. Professional GIS certification under the Grandfathering Provision is indistinguishable from the certification approved in the regular fashion (the combination of Education, Experience, and Contribution points). No one outside the GISCI Staff and Review Committee know who qualifies under this Provision. All GISPs are subject to recertification every five years. There is no Grandfathering Provision for recertification, GISPs certified under the Grandfathering Provision must apply and meet the minimum recertification requirements just as those who are certified under the regular process. The Grandfathering Provision expires on December 31, 2008.

Contributions to the Profession

Benchmark

Modest involvement with publications, professional associations, conference participation, workshop instruction, awards, etc.

At the onset, the professional community was divided on whether contributions to the profession should be part of the program. One side felt they were essential to improving the profession as a whole. The other felt they had little bearing on proficiency and should be eliminated. The Contributions Triad wanted certification to be an opportunity to define the profession of GIS. Professional contributions in the form of conference planning, publications, committee/board participation, outreach, and other related efforts are fundamental to the health of any profession and should not be eliminated.

They maintained contributions were an element of both certification and recertification but suggested shifting the weight downward for initial certification and upward for renewal. This places greater pressure for contributions upon established professionals. In general, it was expected that an active professional is capable of attaining a minimum of two contribution points per year. Contribution points should significantly affect the profession. Simply generating an in-house memo or projects related to one's daily job requirements do not count as contribution points.

The Point Schedule

The list of contribution points is not intended to be static. Categories will be changed, added, edited, and deleted by the Oversight Committee. The first list of contributions was compiled because most of the activities were easy to document. The first iterations included categories for "book reading" and "teaching colleagues" that did not make the final cut. Although, these activities are important to the personal and professional growth of a professional, they are too difficult to document.

The list was categorized. The following seven categories were identified:

- GIS Publications
- GIS Professional Association Involvement
- GIS Conference Participation
- GIS Workshop Instruction
- GIS Conference Presentations
- GIS Awards Received
- Other GIS Contributions

These categories then contain specific activities worth varying degrees of points. The Triad felt no category should take precedent or be required. Professionals contribute in a variety of ways. The list should be flexible enough to suit the manner in which an applicant chooses to participate. If all points fall under one category, that is acceptable. The Contributions Triad added association involvement, awards, and points for smaller publications as an alternative for applicants whose employers do not allow work-related travel or conference attendance. The review period helped shed light on a subsection of professionals who are "chained to their desks" due to budgetary problems or lack of organizational support. There should always be point categories for those with little money and assistance from their employers.

The Committee needed to strike a balance that would appease both sides of the contribution point debate. To many, including the sponsoring organizations, this was seen as a institutionalized method to improve the GIS community. Employers and professionals receive credit for participation along with the intrinsic benefits of belonging to organizations and participating in conferences. The points did not have to be from certain events. The original versions allowed only larger events and activities that offered continuing education units. The Triad felt this would limit or slow the profession's growth. Many professionals do not

have the opportunity to leave the state or region to present at national conferences or money to join international organizations.

Other Contributions

The final section of the Contributions Points Schedule includes the category *Other GIS Contributions*. The Committee refers to them as *XYZ contributions* because of the letters assigned to them on the point schedule. These were intended to serve as the panacea for all volunteer activities that fall outside the other 23 categories. More importantly, it exhibits the flexibility of the program. A variety of activities have been included as XYZ contributions including school presentations, community maps, GIS Corps, etc. When numerous claims are made for a specific contribution that traditionally gets filed under XYZ, a separate category will be developed.

Recertification

Benchmark

A certification cycle that requires further earned credit in the benchmark areas to ensure proficiency.

The concept of recertification is standard across most certification programs. In examination-based programs the test is taken once and the recertification requirements are often annual classes and training. Recertification allows the certification body to confidently recognize certificate holders without making them reapply under the initial standards. As time passes, the original certification standards become more obsolete. Certification bodies develop checks every few years to ensure that professionals are staying current with changes in the industry. The certificate-holder benefits by continuing to increase his knowledge base and maintaining his value to employers. A seasoned professional may become obsolete along with the certification methods if proper reeducation guidelines are not in place.

GISCI operates on a 5-year recertification cycle. GISPs must complete activities in the three achievement categories of education, experience and contributions. The totals a GISP must earn every 5 years are:

4 Educational Achievement points
50 Professional Experience points
10 Contributions to the Profession points
11 additional points in any of the three categories
= 75 total points

Education

The recertification requirement for education may be the most challenging to achieve for some applicants. Taking courses, training or attending conference may not always be easy for certain GISPs. To earn 4 education points in 5 years means any of the following:

- Attend 40 conference days.
- Attend 160 hours of training and/or workshops.
- Earn 16 CEUs for training and/or workshops.
- Take a college or university course worth 3-4 credits
- Earn a certificate in a related field
- Any combination of the above to equal 4 points.

The Committee felt that an applicant should be able to attend 4-6 conference days and 20-30 hours of training/workshops per year. This would exceed the 4-point minimum for recertification. Initially, only courses related to GIS and geospatial technology would be eligible for recertification. Many applicants have claimed that soft-skill, project management training is more important in their roles as GIS Managers, Coordinators, and Consultants. The Oversight Committee will determine if these corollary courses should be used for credit towards recertification.

Experience

To maintain certification, a GISP must have remained employed for between 2-5 years depending on the Tier and level of GIS work. For most applicants, the "additional 11 points" will be earned in this category. Constant employment is not required during the 5 years. Many GISPs will take time off for professional and personal reasons.

Contributions

Contributions are the only category that increases for recertification. GISCI wants GISPs to stay involved after initial certification is earned. With the variety of activities, the Committee felt that earning 2 points per year is reasonable. Professions are never benefited by hiding knowledge under a bushel basket. It is necessary for GISPs to spread information and experience through conferences, associations, and publications. Many employers cut professional development and contribution activities from straining budgets. GISCI wanted to give GISPs an added bargaining chip by requiring contribution points be earned in order for that employer to keep a certified workforce.

Code of Ethics

Benchmark

Appropriate and ethical guidelines for professional practice and conduct.

While URISA was developing the GISCI Certification Program, a subcommittee headed by Will Craig, GISP was developing the Code of Ethics for GIS Professionals. The Code contained the ethical guidelines that all GIS professionals, certified or not, should abide by. The Code went through numerous drafts and public review periods before the GISCI and URISA Boards of Directors accepted it in 2003. All applicants must sign the Code of Ethics prior to certification.

The Code of Ethics works in conjunction with the Code of Conduct (under development). This separate document based heavily on the Code of Ethics lists the rules of conduct for certified GIS professionals. The Code applies to all GIS professionals but is only enforced for GISPs. It contains specific "thou shall" and "thou shall not" provisions for GISPs. If a GISP is found in violation, following due process by the Institute, certification revocation or suspension may result.

The two Codes are important because they add teeth and credibility to the GISCI program. Certified GIS professionals must put their credential at stake with each professional exchange. One agrees to abide by the Codes of Ethics and Conduct or the result may be the loss of his/her credential. A non-certified professional does not have this additional consideration. Unethical behavior in some instances may only result in a lack of respect or credibility for non-GISPs. For a GISP, unethical behavior could result in the loss of the tangible GISP credential. GISPs aspire to perform ethically and agree to face the consequences for dubious and inconsiderate actions.

GISCI as an Organization

The original idea was to have GISCI be a branch of URISA. There would be a reduced certification fee for URISA members and URISA activities would make up the bulk of the points. As the Committee talked, and more was learned about professional certification, it became obvious that a separate organization should be created to run the program. URISA supported this decision for two reasons; 1. it believed in the concept of professional certification, 2. the professional community would indirectly benefit by the program requirements. URISA, along with a variety of other organizations would be the secondary beneficiaries of the program. There would be a new breed of GIS professionals who wanted more education, networking, and the opportunity to share knowledge. This is what educational and trade associations provide.

As professional certification continued to evolve, URISA staff was in charge of developing the administrative side. URISA realized that a separate organization would be the best approach to developing a comprehensive program for the entire profession rather than one subsection. URISA formed the GIS Certification Institute (GISCI) as a separate organization designed to implement and run the program. This organization would be managed by URISA but is completely separate in the eyes of the law and the Internal Revenue Service. GISCI was a revenue-neutral 501(c)(6) non-profit and was created for two separate and expressed reasons. One was that it allowed the program to be multilateral which was an expressed goal of the certification committee from its inception. The second was that this absolves URISA or any of its partners of any legal liability in case GISCI faced litigation and vice versa. The first Board of Directors of GISCI were the current, incoming and outgoing presidents of URISA: Martha Lombard, GISP, Dan Parr, GISP, and Peirce Eichelberger. This interim Board launched the Institute and served until an independent Board was established in 2004.

Multilateralism is the defining characteristic of GISCI. Although, URISA formed GISCI, certification belongs to the broader geospatial community. GISCI knew it would be limited in scope if it only went after state and local government GIS professionals. The Committee was made up of a variety of GIS practitioners from a variety of sectors and to maintain this balance, GISCI would need to operate in a similar fashion. The Association of American Geographers (AAG), The National States Geographic Information Council (NSGIC), and the University Consortium of Geographic Information Science (UCGIS) joined GISCI as Member Organizations from 2004-2005. AAG, NSGIC, UCGIS, and URISA appoint individuals to serve on the Board of Directors. From 2004-2006, URISA appointed the majority of representatives (7 of 9) to the Board of Directors. Lynda Wayne, GISP was appointed the first official GISCI President in 2004.

Member Organizations must be tax-exempt organizations or governmental entities related to spatial technology. The Board of Directors (Appendix B)

oversees the operation and management of the organization and is the governing arm of GISCI. All four organizations lend non-financial support to GISCI. They make sure GISCI is meeting the needs of their subsection of the geospatial community. GISCI is a self-sustaining organization due to the revenue collected from application fees. These four organizations ensure the needs of their members are being met by GISCI by remaining active participants in the process. In 2006, after UCGIS joined a Member Organization, the Board voted to restructure itself once more. Starting in 2006, all Member Organizations will appoint an equal number of representatives to the GISCI Board of Directors so that no one organization is responsible for the future of professional certification. This is an important step forward for GISCI. Many thanks are owed to URISA for getting the program off the ground and to the other member organizations for crafting bylaws and MOUs that truly support a GIS professional development partnership. The program now belongs to GIS professionals from a wide variety of disciplines. The new board distribution reflects that principal.

Conclusion

The GISCI Certification Program was not developed overnight. It took years of debate, collaboration, adjustment, and outreach to develop a successful certification initiative. A dedicated Committee, Triads, and the guidance of the geospatial community helped give direction to a certification program that looks a lot different today than the one conceived a half-decade ago. The benchmarks established by the Certification Committee guide every decision that is made regarding changes to the point system and structure. The program is now tended by the GISCI Board and committee structure. The original URISA Certification Committee has dissolved and watches its creation continue to grow under the auspices of the Institute.

The development of well rounded, educated, and proficient GIS professionals has always been the goal. GISCI reviews hundreds of portfolios annually and certifies applicants who meet the rigorous standards of the Institute. Through

GISCI's recertification and ethics requirements GISPs are challenged to conform to a higher standard. Recertification demands they give back to the community, their colleagues, and young professionals. Ethical requirements demonstrate that the actions of GISPs have consequences and that malignant behavior will not be tolerated. The acceptance of the GISCI Certification Program continues to increase standards for the profession. To echo one of the great sentiments of the Certification Committee, GISCI will set the bar, applicants will attempt to meet it, but GISPs are the ones who ultimately raise it.

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URISA Certification Committee Minutes
1997-2002

GISCI Certification Committee Minutes
2002-2006

Appendix A

URISA Certification Committee Members

1998 – 2003

Chair 1998-2001
Nancy Obermeyer
Indiana State University

Chair 2001-2003
William Huxhold
University of Wisconsin

Committee
Robert Aangeenbrug
University of South Florida

Heather Annulis
University of Southern Mississippi

Robert Barr
University of Manchester

William Bowdy
Northern Kentucky Area Planning Comm

Judy Boyd
ESRI

Al Butler
Farragut Systems, Inc.

Tim Case
Parsons Brinckerhoff

Roger Chamard
Skyjettes Consulting, Inc.

Will Craig
University of Minnesota - CURA

David DiBiase
Penn State University

Peirce Eichelberger
West Chester County, PA

Joseph Ferreira
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Keith Fournier
Lucas County, OH

Steven French
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Cyndi Gaudet
University of Southern Mississippi

Josh Greenfeld
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Karen Kemp
University of Redlands, CA

Jury Konga
Town of Richmond Hill, ON

Joel Morrison
The Ohio State University

Sherman Payne
City of Detroit

Michael Renslow
Spencer B. Gross, Inc

Warren Roberts
Rio Hondo College, CA

Mark Salling
Cleveland State University

Joe Sewash
State of Tennessee

Rebecca Somers
Somers-St Claire

Curt Sumner
ACSM

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El Dorado County, CA

Eugene Turner
California State University

Barry Waite
City of Carson, CA

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FGDC-contractor

Suzanne Wechsler
California State-Long Beach
University

Elaine Whitehead
Volusia County, CA

Lyna Wiggins
Rutgers University

Thomas Wikle
Oklahoma State University

Appendix B

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UCGIS Joined 11/29/05
Had no representatives from 2004-2006