

GIS Workforce in Hospitals and Healthcare

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Introduction

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- *Over 20 years in GIS industry*
- *Over 10 years in GIS in Health and Human Services*
- *Adjunct Faculty and Course Development*
- *Master of GIS Program*
- *GIS Applications for Health and Human Services Course*
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GIS Job Market and Healthcare

- Geospatial careers are among the fastest growing in the U.S. and world and are available in every industry including healthcare.
- The U.S. Department of Labor Statistics reports that the GIS job market is growing at an annual rate of 35%.
- Functional areas and titles of GIS positions include analyst, developer, manager, technician, sales and marketing.

The Power of Geo-Analytics

Geo-Analytics: Ready for Primetime in Healthcare

Geographic information systems (GIS) and geo-spatial analysis is a well-developed industry – passing its 50th anniversary in Fall 2012; yet, with the possible exception of epidemiology, much of healthcare has not fully leveraged this powerful analytics technology.

Various national and local data sources are captured as map layers and used with geo-analytics to routinely optimize a wide-range of operations and processes.



GIS Workforce in Healthcare

GIS in healthcare is not accurately represented in job postings or in actual duties and responsibilities but is performed regularly

- Health records
- Efficiency improvements
- Marketing
- Planning
- Safety
- Community Relations
- Access to Care

The healthcare industry is currently in a transformative period with a need for analysts and synthesizers.

What Should Healthcare Administrators Do?

- **Determine who is performing GIS-related activities in your organization**
 - Health care workers, informaticists, IT personnel, geographers, GIS professionals
 - Assess the quality of the efforts
- **Push for more GIS-centric analytical approach to improve patient outcomes and facility efficiency**
 - Understand, in great detail, the community that you serve
 - Discover the spatial patterns in health care use
 - Identify underserved markets
 - Improve service delivery and access to care

What Should Healthcare Administrators Do?

- **Prepare for compliance related reporting as electronic health record data streams increase**
 - Expect exponential increase in patient data available for analysis
- **Influence the hiring process to recruit qualified GIS staff**
 - Add GIS to some IT-related job descriptions or create new GIS job titles with required or preferred skills

Help to Bridge the Gap

- **Healthcare administration can offer employees professional development services to begin to capitalize on these skills within the hospital from existing employees instead of hiring new employees.**
 - Tuition reimbursement
 - Training courses and certifications
- **By offering employees professional development opportunities, healthcare efficiencies will increase by the use of different technologies, which will directly correlate with patient satisfaction.**
- **This is what healthcare organizations need to do to better prepare employees for the changing industry.**

Education-Key to Bridging GIS Workforce Gap

Through education, healthcare organizations can enhance the analytical and prediction abilities of their staff - the business intelligence tool of today.

Universities and Colleges Provide

- Degree programs
- Certificate programs

These can help bridge the gap and offer professionals the documented skills needed to bring into the workforce.

American Sentinel University

Position Statement

American Sentinel University is an innovative education leader that serves the health care industry. Our faculty provide professionals with the critical thinking, knowledge and relevant skills that drive health care transformation in nursing, informatics, technology and management, so they can improve patient outcomes and system efficiencies.

American Sentinel University

- **Distance Learning Degrees and Certificate Programs**
 - Geospatial Information Systems
 - ✓ Associate of Science Geographic Information Systems
 - Bachelor of Science Geographic Information Systems
 - Geospatial Information Systems Graduate Certificate
 - Masters of Geospatial Information Systems (MGIS)
 - Nursing
 - Informatics and Technology
 - Management
- **Accredited by the Distance Education and Training Council (DETC)**

American Sentinel University Brand Pillars

MySentinel™ Student Support shapes the student experience from admission to graduation with a distinctive personal approach.

Flexible online learning is designed for working professionals. Offered monthly, our eight-week courses give students the convenience and control to complete a degree.

Affordable and attainable education options decrease total cost and time to a quality degree through our competitive tuition rates, flexible payment options, and extensive life experience and transfer credits. Most students graduate debt-free.

Relevant curricula and immersive learning technology foster course and program comprehension, which leads to immediate application at work and a lasting impact on a career.

University and program accreditation meets or exceeds academic standards and employer needs.

Ebola: Is it the key to the increase of the GIS Health Workforce?

- Geographic location is fundamental in stopping the spread and panic of Ebola. Where a person has travelled is one of the first questions patients are asked when they visit public and private clinics and hospitals, with symptoms similar to Ebola, and believe they have contracted the virus. Needing to know locations is absolutely critical in fighting the disease and keeping the fears to a minimum.
- It has been mentioned that EHR's should contain and geocode standardized addresses and should also store living and workplace histories. (Dr. Estella Geraghty, chief medical officer for ESRI, Health Data Management, 2014).
- All the attention the media and the public has given to Ebola, may prove to be beneficial in having geographic information added to our EHR's and increasing the need for qualified GIS professionals in Healthcare. Proving the point that where you live, ***your life geography***, for even a short time, plays a significant role in your well being, may be crucial to your health and is an ***essential part*** of the global healthcare industry.





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