A Mature Profession of Geographic Information Systems Professionals In Puerto Rico

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## Best Jobs in America

Money/Payscale.com's list of great careers 2010

### Low stress

<table>
<thead>
<tr>
<th>Rank</th>
<th>Job title</th>
<th>Best Jobs rank</th>
<th>% who say their job is low stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Biomedical Engineer</td>
<td>10</td>
<td>70.0</td>
</tr>
<tr>
<td>2</td>
<td>Transportation Engineer</td>
<td>51</td>
<td>69.0</td>
</tr>
<tr>
<td>3</td>
<td>Statistician</td>
<td>64</td>
<td>64.0</td>
</tr>
<tr>
<td>4</td>
<td>Web Developer</td>
<td>67</td>
<td>57.7</td>
</tr>
<tr>
<td>5</td>
<td>Geographic Information Systems Analyst</td>
<td>97</td>
<td>55.6</td>
</tr>
<tr>
<td>6</td>
<td>Technical Writer</td>
<td>88</td>
<td>54.9</td>
</tr>
<tr>
<td>7</td>
<td>Test Software Development</td>
<td>30</td>
<td>54.2</td>
</tr>
</tbody>
</table>

### Galleries

'I have the best job in America'
Meet 10 people lucky enough to have the top careers and see why they love their jobs.
See them all
Geospatial Information Scientists and Technologists occupation is one of the "new and emerging occupations” with the highest projected growth for the next decade. It is estimated that it will generate about 72,600 jobs across the United States and its territories. Median wages (2010) = $38.10 hourly, $79,240 annual
## Geospatial Labor Market Projections – U.S. Department of Labor

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Geospatial Information Scientists and Technologists</td>
<td>210,000</td>
<td>51,600</td>
</tr>
<tr>
<td>Geographic Information Systems Technicians</td>
<td>210,000</td>
<td>51,600</td>
</tr>
<tr>
<td>Remote Sensing Scientists and Technologists</td>
<td>30,000</td>
<td>13,300</td>
</tr>
<tr>
<td>Remote Sensing Technicians</td>
<td>62,000</td>
<td>33,500</td>
</tr>
<tr>
<td>Precision Agriculture Technicians</td>
<td>62,000</td>
<td>33,500</td>
</tr>
<tr>
<td>Geodetic Surveyors</td>
<td>51,000</td>
<td>24,200</td>
</tr>
<tr>
<td>Surveyors</td>
<td>51,000</td>
<td>24,200</td>
</tr>
<tr>
<td>Surveying Technicians</td>
<td>57,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Mapping Technicians</td>
<td>57,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Cartographers and Photogrammetrists</td>
<td>14,000</td>
<td>6,100</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>804,000</strong></td>
<td><strong>278,000</strong></td>
</tr>
</tbody>
</table>

Source: US Department of Labor
WHAT IS A RECOGNIZED PROFESSION?

• “The legitimization of professional authority involves three distinctive claims: first, that the knowledge and competence of the professional have been validated by a community of his or her peers; second, that this consensually validated knowledge rests on rational, scientific grounds; and third, that the professional’s judgment and advice are oriented toward a set of substantive values, such as health. These aspects of legitimacy correspond to the kinds of attributes—collegial, cognitive, and moral—usually embodied in the term “profession.”

CHARACTERISTICS OF A PROFESSION
Pugh (1989)

- Self Awareness
- Corpus of Theory
- Social Idea
- Ethical Standards
- Formal Organization
- Hall of Fame
Gary Ford and Norman Gibbs (1996)

- Professional education
- Certification or licensing
- Code of ethics
- Professional society
- Skill development & continuing edu.
Obermeyer (2007)

Body of Knowledge

Code of Ethics

Professional Organization

Professional Culture

Share Language
EDUCATION
Geographic Information Systems

Geographic Information Science

Goodchild, 1992
CERTIFICATION OR LICENSING
CODE OF ETHICS
A GIS Code of Ethics [1]

Rules of Conduct
(The Rules of Conduct is a set of implementing laws of professional practice that seek to express the primary examples of ethical behavior consistent with the Code of Ethics.)

Report an Ethics Violation
(Report unethical behavior of a GISP)

Code of Ethics (Printer Ready Format)

This Code of Ethics is intended to provide guidelines for GIS (geographic information system) professionals. It should help professionals make appropriate and ethical choices. It should provide a basis for evaluating their work from an ethical point of view. By heeding this code, GIS professionals will help to preserve and enhance public trust in the discipline.

This code is based on the ethical principle of always treating others with respect and never merely as means to an end: i.e., deontology. It requires us to consider the impact of our actions on other persons and to modify our actions to reflect the respect and concern we have for them. It emphasizes our obligations to other persons, to our colleagues and the profession, to our employers, and to society as a whole. Those obligations provide the organizing structure for these guidelines.

GIS Ethics - Products

Ethics Education for Geospatial Professionals
gisprofessionalethics.org
PROFESSIONAL CULTURE
10ma Reunión de PRYSIG
7 de septiembre de 2012
Sala Tarzán del Centro de Estudiantes
UPR-Recinto Universitario de Mayagüez

En el verano del 2003 el Centro Hemisférico de Cooperación en Investigación y Educación en Ingeniería y Ciencia Aplicada (CoHemis) de la Universidad de Puerto Rico en Mayagüez (UPRM) reunió por primera vez un pequeño grupo de especialistas trabajando en Puerto Rico con percepción remota y sistemas de información geográfica.

Décima reunión nacional de Percepción Remota y Sistemas de Información Geográfica de Puerto Rico
"Una década uniendo a Puerto Rico desde el espacio"
<table>
<thead>
<tr>
<th></th>
<th>Nonexistence</th>
<th>Development</th>
<th>Growth</th>
<th>Maturity</th>
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<tbody>
<tr>
<td>Education</td>
<td></td>
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</tr>
<tr>
<td>Certification</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Ethics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profesional Society</td>
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</tbody>
</table>
What Needs to be done.

• Professional society
• Standardize Education
• Certification

