Professional Licensure and Certification of Geologists: Mexican Geologists Have a Pathway to Obtain Internationally Recognized Professional Certification

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2023 President, American Institute of Professional Geologists
Topics to be Covered

• Why is licensure and certification of geologists important?
• Who are today’s geologists?
• Introduction to American Institute of Professional Geologists (AIPG)
• What is the difference between licensure and certification?
• What defines a professional geologist?
• How can AIPG help geologists in Mexico?
The Importance of Licensure and Certification

- Global Challenges
- World-Wide Demand for Qualified Geologists
- Impacts Related to Work
Almost 400,000 Geologists Employed in the US in 2017

Source: Chris Keane, American Geosciences Institute

Who are the Geologists of Today?

American Institute of Professional Geologists
Fewer than 250,000 Geoscientists Employed in United States in July 2022

Source: Chris Keane, American Geosciences Institute
### Employment Sectors of Bachelor's Graduates, 2020-21

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>6%</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>6%</td>
</tr>
<tr>
<td>Prof Services</td>
<td>16%</td>
</tr>
<tr>
<td>Construction</td>
<td>9%</td>
</tr>
<tr>
<td>Research Institute</td>
<td>3%</td>
</tr>
<tr>
<td>Utilities</td>
<td>3%</td>
</tr>
<tr>
<td>Food Service</td>
<td>3%</td>
</tr>
<tr>
<td>Waste Mgmt</td>
<td>6%</td>
</tr>
<tr>
<td>Federal</td>
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</tr>
<tr>
<td>State</td>
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</tbody>
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**12% Energy and Mining**

**22% Government**

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### Employment Sectors of Master's Graduates, 2020-21

<table>
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<th>Sector</th>
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<tr>
<td>Mining</td>
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<td>Waste Mgmt</td>
<td>6%</td>
</tr>
<tr>
<td>Federal</td>
<td>12%</td>
</tr>
<tr>
<td>State</td>
<td>24%</td>
</tr>
<tr>
<td>Local Gov</td>
<td>6%</td>
</tr>
<tr>
<td>Research Institute</td>
<td>6%</td>
</tr>
<tr>
<td>Health Care</td>
<td>6%</td>
</tr>
</tbody>
</table>

**24% Energy and Mining**

**36% Government**

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*4YC = 4-year college*

Source: Chris Keane, American Geosciences Institute
Introduction to American Institute of Professional Geologists

- Founded in 1963
- Advocate for the Profession of Geology
- About 5,000 Members
- Promotes High Standards of Ethical Conduct
- Provides Certification of Professional Geoscientists
- Certification Recognized within the United States and Internationally
- Members are Geoscientists Practicing in all Areas of Geosciences

Celebrating AIPG’s 60th anniversary in 2023
Government Licensure of Professionals

- Licensing Started after High-Profile Building Failures
- Engineering and Architecture First Regulated
- The “Big 5” Professions, including Architects, Engineers, Geologists, Landscape Architects, and Surveyors
- Geologists First Licensed in Arizona in 1956
Why was AIPG Formed?

- Response to Long-Term Problems of Poor Quality and Fraud
- Very Few States had Licensure of Geologists when AIPG was Formed
- Founded in 1963
- Promote the Geology Profession
- Provide Certification for Geologists as a Standard of Excellence for the Profession
- No Prior Organization Focused on Professionalism
What is the Difference between Licensure and Certification?

Licensure

- Permission from Government to Practice
- Administered under the State’s Statutes and Rules
- No Federal Program in US or Canada
- Purpose is Primarily to Protect the Health, Safety, and Welfare of the Public
- Establishes Standards for Minimum Competency
- Works in Conjunction with ASBOG (Organization that Prepares Examination)

Certification

- Granted by a Professional Organization
- Voluntary
- Professional Organization Establishes Standards
- Recognition Internationally
- Organization may have Additional Goals

Both licensure and certification were created to demonstrate that the geologist is a professional.
What Defines a Professional Geologist?

- Qualifications, Competence, and Ethics
- Qualified ≠ Competent
- Ethics ≠ Morals
- Obligations and Practices
- The Mexican cédula grants the title of geologist

The Specifics Change Based on the Jurisdiction and Organization
What does AIPG Provide for Geologists?

• AIPG is Recognized Internationally
• AIPG CPG Status is Recognized as “Qualified Person” for Public Disclosure for Mining companies
  • Australian Joint Ore Reserves Committee (JORC)
  • Canadian National Instrument 43-101
  • US Securities and Exchange Commission SK-1300
• AIPG has Agreements to Obtain Reciprocal Recognition
  • American Association of Petroleum Geologists
  • European Federation of Geologists
  • Geological Society of London
  • Institute of Geologists of Ireland
• AIPG Provides Continuing Education and Professional Development
• AIPG is an Advocate for the Profession on a Global Basis
Professional Certification through AIPG

**Education**
- Baccalaureate or Higher Degree in a Geological Science (Minimum of 36 Semester Hours / 54 Quarter Hours)
- Transcripts from all Schools Attended

**Experience**
- Verification from Employers
- Minimum 8 Years or 96 Months of Professional Experience
- Credit for Additional Advanced Degree (1 year for MS and 2 More for PhD)

**Sponsorship**
- Need to Show that Experience is of “Professional” Level
- Verification from Employers
- Applicant Completes Form, which is Confirmed by Verifier

**Application is online:** aipg.org

American Institute of Professional Geologists
Global Practice Supported by AIPG

• Members in 45 Countries

• International Collaboration:
  • Committee for Mineral Reserves International Reporting Standards (CRIRSCO)
  • Global Geoscience Professionalism Group (founding member)
  • Australian Institute of Geoscientists
  • Geological Society of South Africa
  • Geoscience Council of Namibia
  • West African Institute of Mining, Metallurgy and Petroleum
  • Geoscientists Canada
  • American Geosciences Institute
  • GeoAnsata (Brazil)
  • International Raw Materials Observatory
What are the Benefits of AIPG Certification for Mexican Geologists?

• Recognition as a “Qualified Person” for NI 43-101 Reporting
  • University degree related to mineral exploration or mining
  • Minimum 5 years relevant experience
  • Member of recognized professional association
• Recognition as a Professional Geologist based on International Criteria
• Connections to Other AIPG Members Throughout the World
What do our Members say about the benefits of AIPG?

- I wanted to thank you for awarding me a $1,500 AIPG National Undergraduate Scholarship...I am deeply appreciative of your support, and I look forward to staying connected with the AIPG throughout my student and professional career.
- National meetings are a great opportunity to meet people that you have only communicated with or heard about. The span of ages and knowledge is incredible, and everyone is approachable. No egos here.”
- CPG has helped take my career to the next level.
- AIPG has increased my credibility and value to my employers.
- I found my career path by talking to AIPG members who took the time to answer my questions.
- It has been one of the best organizations I have belonged to in my career.
- I think the opportunity to have access to professionals in the field has made a large impact.
- I found mentorship, passionate people and support!
- ...the professional network I have developed is invaluable...
- American Institute of Professional Geologists

...presenting at the national meeting was a great learning opportunity that helped me polish up my presentation skills and to highlight some of the key projects I have been working on...

AIPG is well respected in the environmental and geological professions. My clients know that my credentials are not phony and that I am a competent professional.
Thank you!
AIPG wants to hear from you

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2023 President

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AIPG Contact Information

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