About NASCIO

- National association representing state chief information officers and information technology executives from the states, territories and D.C.
- NASCIO's mission is to foster government excellence through quality business practices, information management, and technology policy.
- Founded in 1969 – we’re a legacy system
Today’s State IT Landscape
Fiscal recovery and IT budgets: CIOs still seeking IT operational cost savings, alternative sourcing options

Cybersecurity threats! New risks, governance is hard, funding inadequate

Transition: systems-centric to technology as a service

Focus on the SMAC stack: Social, Mobile, Analytics and Cloud

Continuing IT workforce retirements, skills gap, recruiting challenges

Market forces of change and future role of the state CIO
What percentage of your state IT workforce is eligible for retirement in the next year? (State Government Only)

A. 10%
B. 20%
C. 30%
D. 40%
E. More than 40%
6. What is the most important workforce issue your government is facing? (State Government Only)

- **8%** A. Compensation package
- **8%** B. Public perception of government workers
- **8%** C. Turnover
- **75%** D. Attracting employees
9. How do you most often fill your skill gaps in your IT workforce? (State Government Only)

5%  A. Hire using competitive salaries/benefits
60% B. Contract out
16% C. Train from within
0%  D. Use volunteers
19% E. We simply can’t fill the gaps
View from the State CIOs

Driving the Enterprise Imperative

Balancing Legacy and Innovation
State CIO Priorities for 2014

1. Security
2. Consolidation/ Optimization
3. Cloud Services
4. Project & Portfolio Management
5. Strategic IT Planning
6. Budget and Cost Control
7. Mobile Services/ Mobility
8. Shared Services
9. Nationwide Public Safety Broadband Network
10. Health Care

Source: NASCIO State CIO Survey, November 2013
18) When you woke up this morning what was your top pain point? (State CIOs only)

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. IT security threats</td>
<td>18%</td>
</tr>
<tr>
<td>B. IT workforce</td>
<td>25%</td>
</tr>
<tr>
<td>C. Supporting legacy environments</td>
<td>14%</td>
</tr>
<tr>
<td>D. Lack of shared vision for technology</td>
<td>21%</td>
</tr>
<tr>
<td>E. IT procurement process</td>
<td>16%</td>
</tr>
<tr>
<td>F. No pain, no gain</td>
<td>7%</td>
</tr>
</tbody>
</table>
Figure 8: Is your state having difficulty recruiting new IT employees?

- Yes: 54.8%
- No: 45.2%

Source: NASCIO, State IT Workforce Under Pressure

Figure 12: Do your state’s salary rates and pay grade structures present a challenge in attracting & retaining skilled IT talent?

- Yes: 78.6%
- No: 21.4%

Source: NASCIO, State IT Workforce Under Pressure
Recruit and Retain: What are the Key Skills?

- Web development/support: 28.6%
- Disaster recovery/business continuity: 21.4%
- Client/server development/support: 26.2%
- Networking support: 40.5%
- Mainframe support: 28.6%
- Project management: 50%
- Analysis & design: 42.9%
- Infrastructure/cloud computing: 31%
- Web 2.0/social media development & support: 9.5%
- Contract management: 23.8%
- Testing/quality assurance: 16.7%
- Application & mobile application development & support: 47.6%
- Security: 52.4%
- Architecture: 47.6%
- Geospatial analysis: 14.3%
- Help desk & training: 7.1%
- Other (please specify): 11.9%

Source: NASCIO, State IT Workforce Under Pressure
## Cybersecurity

What major barriers does your state face in addressing cybersecurity?

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing sophistication of threats</td>
<td>83%</td>
</tr>
<tr>
<td>Lack of adequate funding</td>
<td>77%</td>
</tr>
<tr>
<td>Inadequate availability of security professionals</td>
<td>55%</td>
</tr>
<tr>
<td>Emerging technologies</td>
<td>42%</td>
</tr>
<tr>
<td>Lack of visibility and influence within the enterprise</td>
<td>25%</td>
</tr>
<tr>
<td>Lack of support from business stakeholders</td>
<td>21%</td>
</tr>
<tr>
<td>Inadequate competence of security professionals</td>
<td>19%</td>
</tr>
<tr>
<td>Lack of clarity on mandate, roles and responsibilities</td>
<td>13%</td>
</tr>
<tr>
<td>Lack of legislative support</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
</tr>
<tr>
<td>Lack of executive support</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: NASCIO-TechAmerica – Grant Thornton LLP 2013 State CIO Survey
State IT Workforce Programs and Innovations
What are states doing?

- Internships and co-op opportunities
- Partnerships with colleges, universities, vocational schools
- Targeted groups: women, veterans, disabled, contractors
- Modernize job descriptions, classifications
- Total rewards strategy
- Using social media to recruit
- Education/learning opportunities
- Certification programs: IT and CPM
- Flexible workplace and telework options
- Pay differential for IT
- Promote retention with modified career path
- Eliminate civil service for IT classifications
NextGen IT

Project Approved in 2012
- $8.5M budgeted for FY14
- $2.5M recurring for training (IT Academy)

NextGen Precursor - Team Act: passed 2012
- Changed Civil Service to performance based rather than longevity model
- Eliminated bumping and retreating
- Streamlined grievance processes
- Eliminates hiring restrictions
Create standardized methodologies and practices

- Document, train and utilize best practices across state government
- Facilitate cross agency staff promotions with minimal disruption
- Areas to be included:
  - Global Governance & Portfolio management
  - Business process management (re-engineering)
  - Business Analytics
  - Project Management
  - SDLC
Development of IT Training Academy

- Continuous training on all “Core” technologies, methodologies and practices
- Training targeted to KSAs for each classification
- Course exams part of employee performance evaluations
- Outsourcing for trainers and curriculum taught using both online and on-site state classrooms
- Potential Partnerships with State Colleges and Universities
- $4M targeted for year one, $2.5M recurring
A Market-Competitive Model for IT Workforce

- Full Cycle Recruitment
- Human Capital Planning & Workforce Development
- Total Rewards
- Legislation & Paradigm Shift
- Cultural Shift & Adoption of Values
Price: Attract and Retain Top Talent With a Total Rewards Strategy

- **Business, IT, HR Strategies**
- **Environment**
- **Organizational Culture**

**Drivers and Input:**
- Work Experience Rewards
- Development and Career Rewards
- Indirect Financial Rewards (e.g., benefits, perks, noncash recognition)
- Direct Financial Rewards (e.g., salary, bonuses, incentives)

**IT and Business Performance and Results:** Attract, Retain, and Engage IT Workforce
Total positions filled in FY14 YTD: 225

- 86% from the private sector & 28% promoted from within OIT
- Average days to fill: 30-60 days
An Emphasis on Diversity: Hiring Veterans

- 11 veterans hired in FY13
- Expanding the pipeline
  - Established relationships with Denver Army, US Dept. of Veterans Affairs, VetSuccess, LeaderQuest Careers, Colorado Employers Support of the Guard & Reserves, Colorado National Guard and the Buckley & Ft. Carson military bases
Innovative Approaches

• Public-Private Partnership Internship/Co-op Opportunities
• Piloted with Google & McAfee
• Mutually Beneficial

Colorado

Tomorrow’s Talent
Developing Talent for Tomorrow’s Technology
Internship and Mentor Program

A new and innovative solution from Workforce Development that allows for flexibility in a changing environment.

- Bring in younger workers - expose to IT career
- Develop leaders for succession planning - gain supervisory skill
- Tap new talent and innovative thinkers
Office of Professional Development (OPD)

• Established in 2012
• Goal = skilled & capable IT workforce
• Collaboration with dept CIOs
• Certificate programs - tech schools & colleges
California

Classroom Training & Education Programs

For example:

• Project Management
• Mainframe University
• Business Analysis
• IT Procurement
• Systems Development Lifecycle
<table>
<thead>
<tr>
<th>Academy</th>
<th>Target Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Leadership Academy</td>
<td>Mid &amp; Senior IT managers</td>
</tr>
<tr>
<td>IT Project Academy</td>
<td>IT project teams</td>
</tr>
<tr>
<td>CIO Academy</td>
<td>New &amp; potential CIOs</td>
</tr>
</tbody>
</table>
Thank You

drobinson@nascio.org