Introductions
Meet Our Team

Paul Leef
Project Manager

Steve Schonberger
Space Needs Specialist

Brian Prescott
NCHEMS

Dennis Jones
NCHEMS
About Paulien & Associates

• Understanding of the academy from the inside
• Breadth & depth of higher education experience
• Expertise in data management and visualization
• Space Needs Assessments and Analytics
• Benchmarking
• Capital Planning
• Process and Policy Recommendations

Paulien & Associates

700 Campuses
49 States
10+ State Systems
38 Years in Higher Education Planning
• Data collection and analysis
  • Space and utilization analysis
  • Space Benchmarking
  • Alignment of academic plans with facility plans
  • Gap analysis

• Space models
  • Space needs as related to enrollment, workforce needs
  • Translating programmatic and student success needs into space

• Aligning capital planning with statewide strategic goals
  • Best practices in capital planning
  • Assessment of regional needs

• Design for a strategic capital planning process
About the National Center for Higher Education Management Systems (NCHEMS)

- Private non-profit
- Mission is to improve strategic decision-making in higher education for states and institutions
- Rely heavily on data, but also stakeholder engagement
- Assume the perspective of students and the public
- Current & recent projects:
  - State- or system-wide strategic planning (Utah, Pennsylvania, Connecticut, Wyoming)
  - Strategic finance (affordability, performance funding, etc.)
  - Workforce outcomes & alignment to education
- Notable previous technical assistance provided to Oregon
  - Governance: creation of HECC
  - Models for Oregon promise program
  - Oregon Opportunity Grant redesign (WICHE-provided)
NCHEMS Role

- Data collection and analysis – statewide and for regions
  - Environmental scan – current conditions, trends and projections, workforce needs, etc.
  - Data visualizations
  - Stakeholder engagement
  - Projection of enrollment and workforce demands

- Heuristic models
  - Student Flow (examples follow)
  - Industry – occupation

- Aligning capital planning with statewide strategic goals
  - Alternative delivery modes
  - Multi-campus collaboration

- Design for a strategic capital planning process
Today’s Agenda

OUR APPROACH

• Kick-off, Process Preparation, Data Collection & Review
• Data Analysis
• Facilitation of Meetings and Discussions
• Development of Space Needs & Capital Plan Framework (including alternative delivery modes)
• Project Schedule

DISCUSSION
Kick-off, Data Collection

- Kick-off Meeting at HECC
- Data Collection - Institutions
  - Academic Plans
  - Facility and Capital Plans
  - Deferred Maintenance Facility Condition Assessments
  - Space Inventory Data
  - Research Expenditure
  - Enrollment and Enrollment Projections
  - Student Data
  - Student Success Data
- Other:
  - EMSI
  - Public sources
  - HECC
Data Analysis: Space

California State University - Chico Facilities Inventory

<table>
<thead>
<tr>
<th>College/Unit</th>
<th>Total ASF</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Agriculture</td>
<td>30K</td>
</tr>
<tr>
<td>College of Agriculture (R)</td>
<td>40K</td>
</tr>
<tr>
<td>College of Behavioral Arts</td>
<td>50K</td>
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<tr>
<td>College of Business</td>
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<td>College of Communications</td>
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<td>College of Humanities</td>
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<td>College of Natural Sciences</td>
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<tr>
<td>Student Affairs</td>
<td>50K</td>
</tr>
<tr>
<td>University Advancement</td>
<td>50K</td>
</tr>
</tbody>
</table>

**Total ASF:** 1,817,668

Room ID List = RUC None

PAULIEN & ASSOCIATES

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Total ASF by All

ASF by Room Use Code for All
Data Analysis: Occupational Gaps

Figure 5.6 - Employment Concentration (LQ) by Industry Sector in Arizona, 2015 to 2025

Figure 5.11 - Top Fifteen Unique Skills for Job Postings Related to Biological Sciences in Arizona

Source: QCEW Employees, Non-QCEW Employees, and Self-Employed Data 2016-4.
Data Analysis: Benchmarking

- Add George Mason example
Data Analysis: Geographic Informational System (GIS)
Engagement: Meetings

• Initial Campus Visits
  • Data verification
  • Understanding facility and academic program needs

• Follow-up Campus Visits
  • Facilities personnel
  • Engage local campus, economic and workforce development stakeholders

• Regular Touchpoints
  • CFO’s
  • HECC Agency
  • Commission
Example: Supply & Demand Analysis

Supply and Demand Bubble Chart. Click/hover on any circle to learn more about each job cluster within Virginia for Bachelors+ and to see where that region is located within the state. Vertical lines represent the median wage for the population ge 18-44 at the Bachelors+ level. Demand is based on job postings data compiled by Burning Glass Technologies, and supply is based on IPEDS completions files.

Career Cluster: Nursing
For jobs relative to the numbers of educated workers to fill those jobs in Virginia, this career area is determined to be in Unmet Demand. The median statewide salary for jobs in this career area at the Bachelors+ level is $31,438. On average, there are 10,302 unique job postings in this career area and region each year, and 3,208 graduates. There are 18,754 projected annual openings.
Example: Student Flow Model

Calculating the Economic Value of Increasing College Credentials by 2025

Utah

Set Postsecondary Performance Goals for Year 2025

- Increase College Access
  - High School Graduation Rate: 80.4%
  - College-Going Rate Directly from High School: 45.1%
  - 20 to 39 Year Olds Enrolled in College: 0.85%

- Increase Number of College Credentials
  - Undergraduate Credentials Awarded per 100 Students
    - Public Research: 23.7
    - Public Bachelor’s and Master’s: 25.0
    - Public Two-Year: 22.2
    - Private Colleges: 21.6

Optional: Set 2025 College Attainment Goal (%)

- Gap: Additional Degrees Needed to Meet Goal: 118,815

Results: Additional Undergraduate Credentials Awarded by 2025

- Associate’s: 2,719
- Bachelor’s: 14,115
- Additional Degrees: 16,834
- Undergraduate Certificates: 416
- Total Additional Undergraduate Credentials: 16,418

Additional Undergraduate Credentials Awarded Annually

- Certificates
- Associate’s
- Bachelor’s

Note: The default positions reflect current rates and values. The results in 2025 assume linear progress toward goals.

Created by NCHEMS and CLASP
Example: Student Flow Model - ROI

Calculating the Economic Value of Increasing College Credentials by 2025
Utah

Note: The default positions reflect current rates and values. The results in 2025 assume linear progress toward goals.

Created by NCHEMS and CLASP
Designing for a Strategic Capital Planning Process

• Data driven analyses
• Informed by benchmarking best practices
• Regionally based
• Aligned with statewide strategic goals: 40-40-20
• Effective prioritization process
  • Academic and regional needs
  • Deferred Maintenance
  • Alternatives
• Implementable
Project Schedule

Project Milestone Summary

• HECC kick off meetings: February
• Data collection: Feb through May
• First campus visits: March/April
• Preliminary Analysis: June/July
• Second campus visits: June/July
• Development of plans: Aug/Sept
• Draft report: Sept/Oct
Discussion