Evidence-Based Decision Making: Using Research & Analytics to Guide Institutional Strategy
Higher Education partners often ask us:

- How do we increase enrollment?
- How can we move up the *USNWR* rankings?
- How do we increase retention rates?
- Can we market test new academic programs?
- How do we diversify revenue streams?
- What’s the financial ROI on our current student outcomes?
INCREASING FOCUS ON HIGHER ED CHALLENGES

The Threshold of Disruption

- 4 out of 10 students do not complete degree; many with student loans
- Tuition 5x rate of inflation over past 30 years
- Squeezed middle class
- $1 trillion student debt in U.S.
- Underemployment – over half of graduates work in jobs that don’t require 4 year degree
- *Time* magazine, Carnegie Foundation: 89% of adults, 96% of senior university administrators say higher education in crisis
IMPACT ON SEMINARIES

“Too Poor to Take the Vow of Poverty...”

• 1991, over half M.Div.’s graduated with no educational debt – today only 36%
• Average seminary debt up from $11,043 in 1991 to $38,704 in 2011
• Study this year – average debt for UMC seminary graduates = $49,303
• Overall seminary health a complex picture – enrollment decline (72,014 in 2014, down from 79,244 in 2007)
• Closings, consolidations – but 40% of seminaries grew last year
• M.Div enrollments down, M.A.’s up, 20-somethings down, 50-somethings up
RESPONDING TO TODAY’S CHALLENGES

Rethinking the Higher Education Business Model

- The current business model is heavy on buildings and light on technology – fixed costs, face-to-face, duplicated courses and lectures.
- The ability to shift costs from one payer to another is diminishing - buyers demanding lower and more transparent prices.
- High costs, low perceived value, and lack of convenience = breeding ground for lean, innovative companies to disrupt education ($1.3 trillion industry) as with music and publishing.
  - Harvard Business School low-price online classes
  - StraighterLine – degree from multiple providers
  - Minerva Project
  - Match Beyond - “no excuse” charter school mindset for college
EVIDENCE-BASED DECISION MAKING

Using Data More Effectively

- Wide recognition – the need to become better at using data for making decisions
- Recent *Inside Higher Ed* survey – two-thirds of college presidents: “institutions not strong at using data for making decisions”
- Hurdles – conservative institutions, slow adopters, academic mission vs business, lack of time and expertise
HANOVER’S APPROACH TO RESEARCH AND DATA

Three Key Areas

**PRIMARY RESEARCH**
- Survey design, administration, and analysis;
- Qualitative data coding; in-depth interviews; online focus groups; benchmarking.

**SECONDARY RESEARCH**
- Market segmentation and evaluation; labor and demographic trends and forecasts; vendor and product reviews; best practices reports.

**DATA ANALYSIS**
- Data segmentation and mining; descriptive and predictive analytics; data forecasting and modeling; regression, cluster, conjoint, and TURF analyses.
EXAMPLE: PREDICTIVE ANALYTICS

An Accelerating Focus

- Predictive analytics used in other industries for years
- In higher ed, predictive analytics includes:
  - Which students are most at risk for attrition and require specific retention strategies?
  - What’s the likelihood of an alumni subset making planned gifts?
  - If we make $x investment in dorm upgrades, will we recoup this through longer stays and higher rates?
  - Assuming current recruitment and retention rates, how many adjunct faculty members will we need in the College of Arts & Sciences in 2016?
ADJUSTING STRATEGIES EARLIER

Using Data to Make Up Shortfalls

- If college misses Fall enrollment goal by 10 students...
- At average student tuition of $28,500 per year, 10 students reflect a $285,000 deficit in that year.
- Over the 6 years it takes many students to graduate, a “minor miss” of 10 students = $1.7 million in lost revenue.
- Had this been anticipated could have made earlier adjustments –
  - Increase recruitment efforts
  - Limit planned adjunct faculty hires
  - With fewer “heads in beds” resident life might increase efforts to encourage upperclassmen to consider another year in the dorms
CASE STUDY: GRACE COLLEGE & SEMINARY

Winona Lake, Indiana

• 4 year Christian liberal arts college of 1,200 students
• In 2012 Grace started Reimagine campaign – academic innovation, affordability, & career preparation
• Key question: what tuition price will increase enrollment while consistent with mission?
• Concerned – many private colleges pursued high sticker prices & steep discounts
• Yet some small colleges were pursuing ‘transparency’ by both cutting price and financial aid – with mixed results
HANOVER PROJECT: TUITION PRICE ANALYSIS

Assessing the Market for Grace

• What is the price sensitivity of Grace’s market? What is Grace’s place in the higher education “food chain”?
• We emailed 20,000 potential students; over 1,000 responded
• Range of questions –
  o What role does cost versus college brand play in your college decision?
  o What’s your reaction to different tuition prices?
  o What would you think about a college that reduces its tuition price?
Tuition Price Analysis – Grace College

Cost Perceptions

Figure 1.8: Given similarities in size, programs offered, financial aid available, and general quality, would you be most interested in a private college that costs $16,000, $24,000, or $30,000 per year?

- Students (n=731)
  - $16,000: 73%
  - $24,000: 14%
  - $30,000: 5%

- Parents (n=36)
  - $16,000: 83%
  - $24,000: 22%
  - $30,000: 3%

Note: The data displayed here include only those respondents who expressed an opinion - those who selected "I don't know" or "No preference" are excluded, reducing the N value for this question.
TUITION PRICE ANALYSIS – GRACE COLLEGE

Sticker Price and Financial Aid Perceptions

Figure 1.12: Private colleges can combine costs and financial aid in many ways. Which of the following would you most likely prefer?

- Private college A costs $24,000 per year but you receive scholarships and financial aid of $8,000. (88% students, 77% parents)
- Private college B costs $16,000 per year but no scholarship is available for you. (12% students, 23% parents)
Figure 1.16: In an environment where the state and federal governments are considering reductions in student financial aid, would you consider a decision by a college to reduce its price to be a wise marketing decision, a move of desperation, or a responsible move?

- **Responsible move**
  - Students (n=1013): 41%
  - Parents (n=65): 49%

- **Wise marketing decision**
  - Students (n=1013): 37%
  - Parents (n=65): 40%

- **I don’t know**
  - Students (n=1013): 16%
  - Parents (n=65): 8%

- **Move of desperation**
  - Students (n=1013): 7%
  - Parents (n=65): 3%
Tuition Reduction Perceptions

Figure 1.17: What is your overall reaction to an institution reducing its tuition and fees from, say, $24,000, to a new lower price of $16,000 but also reducing its financial aid funding?

- Students (n=1009)
  - Very positive: 8%
  - Positive: 52%
  - Negative: 19%
  - Very negative: 1%
  - I don't know: 20%

- Parents (n=65)
  - Very positive: 14%
  - Positive: 45%
  - Negative: 12%
  - Very negative: 5%
  - I don't know: 25%
Figure 2.1: Sample Question

This is the final section, our virtual college market, where you will be shown various college/price offers and asked to select the ones you prefer.

Based on the information below, which of the following colleges would you select?

(2 of 9)

<table>
<thead>
<tr>
<th>School</th>
<th>Annual Tuition Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring Arbor University</td>
<td>$24,000</td>
</tr>
<tr>
<td>Bethel College (Mishawaka, IN)</td>
<td>$28,000</td>
</tr>
<tr>
<td>Indiana Wesleyan University (Marion, IN)</td>
<td>$30,000</td>
</tr>
<tr>
<td>NONE: I wouldn’t choose any of these.</td>
<td></td>
</tr>
</tbody>
</table>
### Competitor Price Points

#### Figure 2.6: Estimated Competitor Tuition Values in 2014-15

<table>
<thead>
<tr>
<th>Institution</th>
<th>Estimated Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson University</td>
<td>$27,000</td>
</tr>
<tr>
<td>Bethel College</td>
<td>$26,000</td>
</tr>
<tr>
<td>Cedarville University</td>
<td>$27,000</td>
</tr>
<tr>
<td>Cornerstone University</td>
<td>$25,000</td>
</tr>
<tr>
<td>Huntington University</td>
<td>$25,000</td>
</tr>
<tr>
<td>Indiana Wesleyan University</td>
<td>$25,000</td>
</tr>
<tr>
<td>Liberty University</td>
<td>$22,000</td>
</tr>
<tr>
<td>Spring Arbor University</td>
<td>$24,000</td>
</tr>
<tr>
<td>Taylor University</td>
<td>$30,000</td>
</tr>
</tbody>
</table>

*Note: Estimates obtained by increasing 2013-14 tuition prices by four percent and then rounding to the nearest $1,000 mark.*
Market Share Estimates

Figure 2.7: Market Share Estimates by Varying Tuition Costs at Grace
(Competitor Tuition Based on Current Prices)

- Grace College
- Anderson
- Indiana Wesleyan
- Taylor
- Huntington
- Bethel
- Out-of-state
- None

N=910
Note: Competitors’ tuition prices based on what they currently charge plus an anticipated increase of 4% (see Figure 3). See Figure A2 for a table of the values that compose this chart.
TUITION PRICE ANALYSIS – GRACE COLLEGE

Attribute Importance

Figure 2.9: Attribute Importance (Students)

Tuition 42.5
School 57.5

N=910
Importance of College Characteristics

Figure 2.11: Attribute Importance by Most Important College Characteristics (Students)

- Spiritual Community (n=47): School 61.0, Tuition 39.0
- Academic Reputation (n=104): School 60.3, Tuition 39.7
- Availability of Major (n=291): School 58.8, Tuition 41.2
- Financial Aid (n=119): School 55.9, Tuition 44.1
- Career Placement (n=59): School 55.5, Tuition 44.5
- Cost (n=189): School 52.3, Tuition 47.7
What could we learn from institutions that had reduced their tuition by more than 5 percent within the last 15 years?

How did they research, plan, and implement those tuition reduction initiatives?

Hanover conducted extended, in-depth interviews with administrators at each institution who were involved in the planning and decision-making process.

The five institutions selected for case-studies represented a useful range of markets and approaches to tuition pricing.
Lourdes University implemented its tuition reductions quickly, and drastically increased the number of full-time undergraduates it enrolled.
Case Studies: Tuition Reduction

Other Institutions

- **University of Charleston** retreated from its plan – did not deliver enrollment boost.
- **Heidelberg University’s** initial positive effects diminished quickly – enrollment numbers dropped.
- **Roger Williams University** opted to forego tuition reduction — predictive models showed a reduction could be disadvantageous. Implemented a tuition freeze guarantee that has been successful.
- All the institutions emphasized unique combinations of their market characteristics - took time to understand them.
- One administrator warned: look at pricing, but don’t over-focus; continue to improve and differentiate.
RESULTS

Successful Use of Evidence at Grace College

• Other Hanover projects – predictive admissions yield analysis, and retention analysis
• Grace initially planned to reduce tuition by about 20%. Based on our research, Grace reduced it by only 9%
• Also instituted innovative 3-year bachelor’s degree with free online summer courses
• Annual reductions in tuition with each continuous year of enrollment
• Reduced tuition plus accelerated degrees allowed students to enter the job market one year earlier = 50% reduction in total college tuition costs
• Added a strong internship program and placement guarantee
• Last year had 17% enrollment growth, continued high ratings from USNWR, and broke ground on new dormitory to handle growth
"WE CONTINUED TO TURN BACK TO THE ANALYSES THAT HANOVER COMPLETED TO SUPPORT THE RESEARCH BEHIND OUR DECISIONS."

- DR CARRIE YOCUM, VICE PRESIDENT OF ADMINISTRATION, GRACE COLLEGE

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