CIC CAO/CFO Conference:

Financial Aid Leveraging: Integrated Research Can Increase Enrollment and Net Revenue

MICHELE PERKINS
PRESIDENT
NEW ENGLAND COLLEGE
The goal of this approach is to leverage financial aid to yield an increase enrollment and net revenue.

OR

To enroll the students you want to enroll.

• Number
• Quality
• Diversity
• Likelihood of Persisting
• Net Revenue
Beware of Pronouncements

“The discount is too high!”
Beware of Pronouncements

“The GPAs/Scores are too low.”
Beware of Pronouncements

“All wealthy students should pay full tuition.”
Beware of Pronouncements

“We should only give scholarships to the very best students.”
Beware of Pronouncements

“Tuition should be increased according to our budget needs.”
Beware of Pronouncements

“Admission needs to:
--Get only the best students
--And spend as little as possible”
For Tuition Dependent Institutions there are Two Simple Truths:

Your competitive position determines price and discount.

You can only raise price or lower discount if you have excess demand.
1. Know Your Position in the Market
2. Know Your Data

The ballerina at the barre must find her center before she can dance
1. Know Your Position in the Market
2. Know Your Data

- Where are your most successful yields? (largest cells with best % deposits to admits)
- Where should you spend more $$ to get what you seek?
- What are your competitors doing?
- What are the demographic trends in your region?
3. Be Ambitious
   BUT
4. Be Realistic
5. Imagine All Possibilities

The trouble with him was that he was without imagination.
- Jack London, “To Build a Fire”
5. Imagine all Possibilities

- Understand that in today’s world, past results are not a completely reliable predictor of future behavior

- Track real-time behavior

- When a trend may be happening, decide the several alternatives to respond to it

- Merit frontloaded?

- Focus on the “bread and butter” population

- Track other data – FAFSAs and 1st position FAFSAs
6. Expect the Unexpected

NEVER ASSUME ANYTHING
6. Expect the Unexpected

• If your deposits are down assume they will stay that way until you do something about it

• Address the problem as early as possible

• Find out if there are other factors impacting the yield

• If you are up in deposits, do not assume they will enroll

• Track other data: FAFSAs, housing, registration, preliminary tuition payments

• Capture and save all data for future comparisons
7. Know the True Cost of Enrollment

Net Revenues?

Cost?
7. Know the True Cost of Enrollment

• Understand that net revenue is not the same as margin

• What are the associated costs?

• More enrollment does not necessarily equal more net revenue

• Model enrollment to know your optimal size; if you have excess demand, know the impact of focused discounting
8. Forecast, Forecast, Forecast
8. Forecast, Forecast, Forecast

- Use data from previous years, monitor on a daily basis if possible
- Use current data to forecast weekly yields
- Research why weekly goals were attained or why they were not attained
- Know the pool, develop and update forecasts for final enrollment
- Model yields based on discounting; know what increasing discount will do
9. Know that We are Both (All) in This Together
Financial Aid Leveraging: Integrated Research Can Increase Enrollment and Net Revenue

David R. Wuinee
Senior Vice President
Maguire Associates, Inc.
Lifecycle Enrollment Management

Influencers (e.g. Parents, Guidance Counselors)

Prospects

Applicants

Admits

Initial Deposits

1st Year Matrics

2nd Year Matrics

Degree Earners

Yield

Retention

Completion

Melt Containment

Strategic Pricing Yield Analysis
Competitive Pricing: Value & Cost

- Ability to pay (socio-economic)
- Multi-Year Recruitment Campaigns
- Primary & Secondary Markets
- Perceived Quality & Importance
- Demand
- Economy
- Demographics
- Price Sensitivity Context
- Willingness to pay (perceived value)
- Year Specific Enrollment & Financial Goals

Sticker Price
Net Cost
Institutional Aid Discount
Strategic Pricing

- Invite integrated, institutional involvement in setting enrollment goals
- Utilize primary & secondary market research to further inform institutional decision-making
- Bring understanding to the financial/enrollment implications of current pricing and institutional awarding practices
- Evaluate the impact of various tuition increases on enrollment and revenue
- Evaluate options for shaping the composition/quality of incoming classes cost-efficiently
- Determine cohort price elasticity within the admitted student pool in the immediate past enrollment cycle
- Implement a financial aid awarding strategy that maximizes a student’s probability of enrollment and optimizes net total revenue
Enrollment Management Forecast Analysis System

EMFASYS
EMFASYS: The Process

- Historical Data Review
  - Actuals
  - Matrices

- Predictive Modeling
  - Projection Equation
  - Boundaries

- Trade-off Options
  - Possible Scenarios
  - Chosen Option

- Awarding and Tracking
  - Individualized Student Awarding
  - Monitor Progress & Project Outcomes
UNDERSTAND THE PAST

EMFASYS Cohorts Only
Recent Enrollment Outcomes
Multi-Dimensional Matrices (quality x need)
### Freshmen Modeling Population

#### Year End Fall 2011

<table>
<thead>
<tr>
<th></th>
<th>Applied</th>
<th>Admitted</th>
<th>Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>3973</td>
<td>3005</td>
<td>680</td>
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<tr>
<td>yield</td>
<td>75.6%</td>
<td>22.8%</td>
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<tr>
<td>Average SAT</td>
<td>1076.4</td>
<td>1130.9</td>
<td>1126.2</td>
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<tr>
<td>Average GPA</td>
<td>90.18</td>
<td>90.21</td>
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<tr>
<td>Average Admission Rating</td>
<td>81.40</td>
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<tr>
<td>Gender (male)</td>
<td>1759</td>
<td>1357</td>
<td>319</td>
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<tr>
<td>% of total</td>
<td>44.3%</td>
<td>45.2%</td>
<td>46.9%</td>
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<tr>
<td>In-State Resident</td>
<td>3389</td>
<td>2622</td>
<td>626</td>
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<tr>
<td>% of total</td>
<td>85.3%</td>
<td>87.3%</td>
<td>92.1%</td>
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<tr>
<td>EPS: Home Market</td>
<td>1808</td>
<td>1510</td>
<td>400</td>
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<tr>
<td>% of total</td>
<td>45.5%</td>
<td>50.2%</td>
<td>58.8%</td>
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<tr>
<td>EPS: Secondary Market</td>
<td>302</td>
<td>270</td>
<td>79</td>
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<td>% of total</td>
<td>7.6%</td>
<td>9.0%</td>
<td>11.6%</td>
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<tr>
<td>EPS: Tertiary Market</td>
<td>301</td>
<td>233</td>
<td>54</td>
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<td>% of total</td>
<td>7.6%</td>
<td>7.8%</td>
<td>7.9%</td>
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<tr>
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<td>% of total</td>
<td>30.7%</td>
<td>36.9%</td>
<td>41.5%</td>
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<tr>
<td>Source: Search</td>
<td>1126</td>
<td>995</td>
<td>215</td>
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<td>28.3%</td>
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<td>31.6%</td>
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<tr>
<td>Source: Common Application</td>
<td>868</td>
<td>598</td>
<td>74</td>
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<td>21.8%</td>
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<td>2317</td>
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<tr>
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<td>141</td>
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#### Year End Fall 2012

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<th>Applied</th>
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<tr>
<td>Students</td>
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<td>2963</td>
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<td>74.2%</td>
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<tr>
<td>Average SAT</td>
<td>975.6</td>
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<td>Average GPA</td>
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<td>533</td>
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<td>EPS: Home Market</td>
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<td>% of total</td>
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<td>59.6%</td>
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<tr>
<td>EPS: Secondary Market</td>
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<td>286</td>
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<td>292</td>
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<td>Top High Volume HS</td>
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<td>Source: Common Application</td>
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<td>708</td>
<td>74</td>
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<td>207</td>
<td>41</td>
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<tr>
<td>% of total</td>
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<td>7.0%</td>
<td>7.2%</td>
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<tr>
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<td>167</td>
<td>57</td>
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<td>5.6%</td>
<td>10.0%</td>
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<td>Historical Data Review</td>
<td>Intend to File FAFSA</td>
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<td>% of total</td>
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<tr>
<td>------------------------</td>
<td>---------------------</td>
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<tr>
<td>FAFSA Filer</td>
<td>2555</td>
<td>2226</td>
<td>640</td>
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<tr>
<td>First Choice on FAFSA</td>
<td>822</td>
<td>771</td>
<td>427</td>
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<tr>
<td>% of Filers</td>
<td>32.2%</td>
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<td>66.7%</td>
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<tr>
<td>% of total</td>
<td>20.7%</td>
<td>25.7%</td>
<td>62.8%</td>
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<tr>
<td>Second Choice on FAFSA</td>
<td>538</td>
<td>462</td>
<td>96</td>
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<tr>
<td>% of total</td>
<td>13.5%</td>
<td>15.4%</td>
<td>14.1%</td>
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<tr>
<td>Third Choice on FAFSA</td>
<td>371</td>
<td>318</td>
<td>49</td>
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<td>% of total</td>
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<td>7.2%</td>
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<td>Visited Campus</td>
<td>1350</td>
<td>1272</td>
<td>525</td>
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<td>% of total</td>
<td>34.0%</td>
<td>42.3%</td>
<td>77.2%</td>
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<td>Attended Open House</td>
<td>626</td>
<td>601</td>
<td>298</td>
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<td>% of total</td>
<td>15.8%</td>
<td>20.0%</td>
<td>43.8%</td>
</tr>
<tr>
<td>Avg. Demonstrated Financial Need</td>
<td>$25,635 $26,785</td>
<td>$26,390 $27,296</td>
<td></td>
</tr>
<tr>
<td>Average Institutional Aid</td>
<td>$16,895 $18,699</td>
<td>$17,002 $18,015</td>
<td></td>
</tr>
<tr>
<td>Total Institutional Aid</td>
<td>$50,770,180 $12,715,537</td>
<td>$50,377,569 $10,304,319</td>
<td></td>
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<tr>
<td>Tuition &amp; Fee Discount Rate</td>
<td>55.0% 60.9%</td>
<td>53.1% 56.2%</td>
<td></td>
</tr>
<tr>
<td>Total Discount Rate</td>
<td>45.2%</td>
<td>45.0%</td>
<td></td>
</tr>
<tr>
<td>Net Tuition Revenue</td>
<td>$8,169,303</td>
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<td>$8,016,841</td>
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<tr>
<td>Net Tuition Revenue Per Student</td>
<td>$12,014</td>
<td>$14,015</td>
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<tr>
<td>Net Total Revenue</td>
<td>$13,690,264</td>
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<td>$12,603,001</td>
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<tr>
<td>Net Total Revenue Per Student</td>
<td>$20,133</td>
<td>$22,033</td>
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</tr>
</tbody>
</table>
Quality by Need Analysis Matrices

Key to Reading Matrix Data

Yield (Determined by enrolled/accepted below)  

Yield = 26.4%

Avg. Grant:

Average grant awarded to students who enrolled (E) = $17,408
Average grant awarded to students who did not enroll (N) = $16,081
Average grant awarded overall (T) = $16,432

Net Total Revenue (NTR) = $12,494,672

# who enrolled / # students accepted = 450/1702

Matrix analysis of enrollment and financial outcomes:
Develop statistical equations for predicting outcomes
Adapt predictive equations for awarding scenarios
Generate institutional price sensitivity analysis
Review enrollment and financial goals for new students
Demonstrate full range of trade-off scenarios to achieve goals

ENVISION THE FUTURE
Increase likelihood of enrollment through use of institutional grants.

Assuming a $35,000 COA

<table>
<thead>
<tr>
<th>Institutional Grant Amount</th>
<th>Likelihood of Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>$10,000</td>
<td>10%</td>
</tr>
<tr>
<td>$20,000</td>
<td>20%</td>
</tr>
<tr>
<td>$30,000</td>
<td>30%</td>
</tr>
<tr>
<td>$40,000</td>
<td>40%</td>
</tr>
</tbody>
</table>

© Maguire Associates
Optimize net revenue through the use of institution grants.

Assuming a $35,000 COA

Maximum probabilistic contribution to net revenue

Net Revenue

Institutional Grant Amount

No grant aid, all revenue

All grant aid, no revenue

© Maguire Associates
Model Optimized enrollment & revenue

Estimated Laffer Curve

- Net Total Revenue
- Average Grant
- Estimated Laffer Curve
- Your Institutional Grant
- Average Maguire Award

Graph showing the relationship between net total revenue and average grant, with two curves representing estimated Laffer curves.
**EMFASYS™ outputs: Identifying enrollment predictors (for building projection model)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Directionality of Coefficients</th>
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</thead>
<tbody>
<tr>
<td>Scholarship Amount</td>
<td>+</td>
</tr>
<tr>
<td>Minority (excluding Asian)</td>
<td>-</td>
</tr>
<tr>
<td>Arts and Sciences</td>
<td>-</td>
</tr>
<tr>
<td>First Contact-Sent Scores</td>
<td>+</td>
</tr>
<tr>
<td>First Contact-Application</td>
<td>+</td>
</tr>
<tr>
<td>E-Common Application</td>
<td>-</td>
</tr>
<tr>
<td>Legacy</td>
<td>+</td>
</tr>
<tr>
<td>Campus Tour</td>
<td>+</td>
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<tr>
<td>Attended Student Decision Day Program</td>
<td>+</td>
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<tr>
<td>SAT</td>
<td>-</td>
</tr>
<tr>
<td>High School GPA</td>
<td>-</td>
</tr>
<tr>
<td>Listed as FAFSA First Choice</td>
<td>+</td>
</tr>
<tr>
<td>Listed as FAFSA Second Choice</td>
<td>+</td>
</tr>
<tr>
<td>Demonstrated Financial Need</td>
<td>-</td>
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<tr>
<td>Admitted to Honors Program</td>
<td>+</td>
</tr>
</tbody>
</table>
What is ‘your’ price sensitivity ratio?

$0 aid

full tuition aid

Likelihood of Enrollment (Price Sensitivity)
A test of your students’ price sensitivity, by:

- Academic program
- Academic quality
- Resident/Commuter
- Diversity
- In-state / Out-of-state
- Other populations
Use price sensitivity segments to maximize revenue

- **High sensitivity**
  - Net cost is a dominant factor in students’ enrollment decision and their decision making is very sensitive to financial aid offers.

- **Medium sensitivity**
  - Students tend to respond to less expensive financial incentives and therefore bring in more net revenue.

- **Low sensitivity**
  - Financial aid does not have much of an effect on students’ enrollment decisions.

Best opportunity to shape incoming classes and maximize revenue through strategic aid awarding.
EMFASYS™ outputs: Evaluating trade-offs

Test a variety of enrollment and financial trade-offs to seek your ideal solution for:

- Academic quality
- Residential capacity
- Geography
- Headcount enrollment
- Net Total Revenue
- Discount Rate
- Other criteria

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Finalize and implement chosen awarding strategies
Ongoing tracking and forecasting (progress towards goals)
Model & strategy adjustments, if necessary
Appeal & negotiation expenditure planning
Consultation and conversation

MANAGE THE PRESENT
• Research-driven education consulting firm based in Concord, MA
• Established in 1983
• Staffed by marketing experts, higher education practitioners, economists, and analysts
• Provided over 400 colleges, universities and other educational organizations – big and small, public and private – with leadership counsel, research, strategic planning, branding and messaging, recruitment, pricing, and financial aid awarding services.
• Industry leaders in predictive modeling
• Recognized for thought leadership
• Client focus with a collegial style
QUESTIONS & DISCUSSION

THANK YOU
Strategic leveraging of financial aid to enhance retention

Daniel A. Wubah
Washington and Lee University
Quick facts

- Established in 1749 and located in the Shenandoah Valley, VA
- 1820 undergrads and 360 law students
- Student: faculty ratio
- First to second year retention rate
- Graduation rate (4 years)
Financial overview

- $1.5 b endowment ($625K per student)
- Approximately $126 m operating expenses (2013-14)
- Internally manage 67% of endowment and 33% managed by third parties
- Discount rate of about 47%
- Financial aid anchored by Johnson Scholars Program
Overall institutional goals

- Recruitment: Provide aid packages that yield an optimal mix of students, including those who may not otherwise enroll at W&L.
- Retention: Help close gaps between costs and resources that may prevent students from persisting to degree.
- Meet net tuition goals.
CAO/CFO goals

- Enroll the desired number of students
- Enroll students with the desired characteristics
- Achieve a targeted net revenue goal
- Control the institution’s discount rate/financial aid expenditures
Tuition rates have slowed in recent years with increases for 2013-14 and 2014-15 at 2.7% and 2.5%, respectively.

Since 2008-09, tuition per student has increased at a 4% rate annually; on a net basis it has grown at only 0.37%.

Net Tuition per student has held steady at approximately $23,300 per student for the last five years.
Johnson Scholarship Program

- Established with $100 million gift
- Covers total cost of attendance for 4 years
- Target of 10% of entering class
- Half of the awards are need-based and the other half are need-blind
- Needy students who do not receive Johnson get other scholarships
Johnson Scholarship Program

- About 55% percent of total applicant pool
- December: First round yields about 400 students
- February: Second round of 140 students participate in on-campus interview
- March: About 70-80 offers made to yield between 38 and 46 Johnson Scholars
- All second round applicants receive other grants
Targeted strategies

- Institutional need-based dollars tend to have the greatest impact among the most needy students.

- We look first at number of students we are not serving with merit funds before increasing the amounts of your merit awards.

- Full tuition waivers can often be substituted with partial waivers with very little impact on yield, which leads to serving more students.
Targeted strategies

- Majority of study abroad fellowships targeted to rising juniors and seniors
- Partnership between OFA, academic departments and Student Affairs to ensure early intervention
- Understand what institutional policies or procedures may contribute to attrition
Process matters

- Eliminate unnecessary institutional aid applications layers
- Monitor the typical award delay on students selected for verification
- Timing is everything; new and returning student awards should “roll” beginning March 1
- Calculate balance due for students and provide information about how they can meet their obligation early
Early warning systems

- First year experiences
- Financial aid renewal policies
- Community building programs
- Student satisfaction surveys
- Academic advising and support systems
- Student life programs
Probation students

- Financial aid counselors reach out students on academic probation
  - Why is the student on probation?
  - What requirements must the student fulfill to be eligible for enrollment and aid?
  - How can the student improve his/her academic record?
Other suggestions

- Converting waivers tied to a percentage of tuition and fees to fixed dollar amounts led to increased retention.

- Applying additional money to high-yielding segments of our student population rarely produce adequate return on investment.