Financial Challenges for the Future

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June 2015

Introduction and Context

- The business model for liberal arts colleges has endured for 150+ years
- Its primary funding source is student revenues, and
- Endowments vary widely in size, but
- **Institutions tend to create an operating structure designed to put virtually all of the revenue to work each year, at least in part because they are required to do so as not-for-profit organizations**
- Most ACM schools have a limited ability to diversify their revenue base in any significant way, in part due to their geographic locations

Data highlights

Student body size
Posted tuition
Posted comp fee

Change in discount rate

Net tuition revenue
Net tuition per student

Annual Fund
Endowment size
Outstanding debt

Sample income statements

- In the base case, total revenues are expressed as $100 to eliminate debates about specific dollar amounts and to make the math on all lines easier to follow
- The examples aren't forecasts, just exhibits showing the dynamics of the math
- Expenses are generally not adjusted in the scenarios
- Growth rates are assigned to the major revenue and expense lines based upon likely trends or past patterns

Base Case

- We used the most likely trend lines
- Financial aid grows faster than tuition
- Endowment earns 6% annually, only 1% above the draw formula

Sample College - pro forma standard size income statement (2012/13 = 100)

Base case

	2013		2014	2015	2016	2017	2018	2019	2020
	Base	*Growth*	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
tuition	**112.9**	*3.5%*	116.9	120.9	125.2	129.6	134.1	138.8	143.6
fin aid	**(54.0)**	*4.5%*	(56.4)	(58.9)	(61.6)	(64.4)	(67.3)	(70.3)	(73.4)
net tuition	**58.9**		60.5	62.0	63.6	65.2	66.8	68.5	70.2
room and board	**13.2**	*4.0%*	13.7	14.3	14.8	15.4	16.1	16.7	17.4
endowment	**19.5**	*1.0%*	19.7	19.9	20.1	20.3	20.5	20.7	20.9
gifts and other	**8.4**	*4.0%*	8.7	9.1	9.4	9.8	10.2	10.6	11.1
revenues	**100.0**		**102.6**	**105.3**	**108.0**	**110.8**	**113.6**	**116.5**	**119.5**
growth rate from prev yr			2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
compensation	**60.0**	*4.0%*	62.4	64.9	67.5	70.2	73.0	75.9	79.0
program	**30.0**	*3.0%*	30.9	31.8	32.8	33.8	34.8	35.8	36.9
debt/capital	**10.0**	*4.0%*	10.4	10.8	11.2	11.7	12.2	12.7	13.2
expenses	**100.0**		**103.7**	**107.5**	**111.5**	**115.7**	**119.9**	**124.4**	**129.0**
growth rate from prev yr			3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
difference between inc and exp growth			**-1.1%**	**-1.1%**	**-1.1%**	**-1.1%**	**-1.1%**	**-1.1%**	**-1.1%**
Net	**0.0**		**(1.1)**	**(2.3)**	**(3.5)**	**(4.9)**	**(6.3)**	**(7.9)**	**(9.5)**
Discount rate	47.8%		48.3%	48.7%	49.2%	49.7%	50.2%	50.6%	51.1%
Net tuition/FTE growth			2.6%	2.6%	2.5%	2.5%	2.5%	2.5%	2.5%

Bad case

- Net tuition growth slows due to higher financial aid growth
    - The same effect could be generated by slowing tuition increases and keeping fin aid growth unchanged
- Endowment now earns 1% less than the draw

Sample College - pro forma standard size income statement (2012/13 = 100)

Bad case - slower net tuition growth, poor endowment returns

	2013		2014	2015	2016	2017	2018	2019	2020
	Base	*Growth*	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
tuition	112.9	*3.5%*	116.9	120.9	125.2	129.6	134.1	138.8	143.6
fin aid	(54.0)	*6.0%*	(57.2)	(60.6)	(64.3)	(68.1)	(72.2)	(76.6)	(81.1)
net tuition	58.9		59.6	60.3	60.9	61.4	61.9	62.2	62.5
room and board	13.2	*4.0%*	13.7	14.3	14.8	15.4	16.1	16.7	17.4
endowment	19.5	*-1.0%*	19.3	19.1	18.9	18.7	18.5	18.4	18.2
gifts and other	8.4	*4.0%*	8.7	9.1	9.4	9.8	10.2	10.6	11.1
revenues	100.0		101.4	102.8	104.1	105.4	106.7	107.9	109.1
growth rate from prev yr			1.4%	1.3%	1.3%	1.3%	1.2%	1.1%	1.1%
compensation	60.0	*4.0%*	62.4	64.9	67.5	70.2	73.0	75.9	79.0
program	30.0	*3.0%*	30.9	31.8	32.8	33.8	34.8	35.8	36.9
debt/capital	10.0	*4.0%*	10.4	10.8	11.2	11.7	12.2	12.7	13.2
expenses	100.0		103.7	107.5	111.5	115.7	119.9	124.4	129.0
growth rate from prev yr			3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
difference between inc and exp growth			-2.3%	-2.4%	-2.4%	-2.5%	-2.5%	-2.6%	-2.6%
Net	0.0		(2.3)	(4.8)	(7.4)	(10.2)	(13.2)	(16.5)	(19.9)
Discount rate	47.8%		49.0%	50.1%	51.3%	52.6%	53.9%	55.2%	56.5%
Net tuition/FTE growth			1.2%	1.1%	1.0%	0.9%	0.7%	0.6%	0.4%

Good case

- Financial aid grows at the same rate as tuition
- Endowment earns 3% more than the draw formula

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Sample College - pro forma standard size income statement (2012/13 = 100)

Good case - No growth in discount rate, endowment returns closer to long term target

	2013		2014	2015	2016	2017	2018	2019	2020
	Base	***Growth***	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**
tuition	**112.9**	*3.5%*	116.9	120.9	125.2	129.6	134.1	138.8	143.6
fin aid	**(54.0)**	*3.5%*	(55.9)	(57.8)	(59.8)	(61.9)	(64.1)	(66.3)	(68.7)
net tuition	**58.9**		61.0	63.1	65.3	67.6	70.0	72.4	75.0
room and board	**13.2**	*4.0%*	13.7	14.3	14.8	15.4	16.1	16.7	17.4
endowment	**19.5**	*3.0%*	20.1	20.7	21.3	21.9	22.6	23.3	24.0
gifts and other	**8.4**	*4.0%*	8.7	9.1	9.4	9.8	10.2	10.6	11.1
revenues	**100.0**		**103.5**	**107.2**	**110.9**	**114.8**	**118.9**	**123.1**	**127.4**
growth rate from prev yr			**3.5%**	**3.5%**	**3.5%**	**3.5%**	**3.5%**	**3.5%**	**3.5%**
compensation	**60.0**	*4.0%*	62.4	64.9	67.5	70.2	73.0	75.9	79.0
program	**30.0**	*3.0%*	30.9	31.8	32.8	33.8	34.8	35.8	36.9
debt/capital	**10.0**	*4.0%*	10.4	10.8	11.2	11.7	12.2	12.7	13.2
expenses	**100.0**		**103.7**	**107.5**	**111.5**	**115.7**	**119.9**	**124.4**	**129.0**
growth rate from prev yr			**3.7%**	**3.7%**	**3.7%**	**3.7%**	**3.7%**	**3.7%**	**3.7%**
difference between inc and exp growth			**-0.2%**	**-0.2%**	**-0.2%**	**-0.2%**	**-0.2%**	**-0.2%**	**-0.2%**
Net	**0.0**		**(0.2)**	**(0.4)**	**(0.6)**	**(0.8)**	**(1.1)**	**(1.3)**	**(1.6)**
Discount rate	47.8%		47.8%	47.8%	47.8%	47.8%	47.8%	47.8%	47.8%
Net tuition/FTE growth			3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%

So why not just increase revenue?

- Perhaps by tapping other sources like non-traditional programs or renting the campus?
- As a general matter this isn't a bad idea as long as the revenue stream significantly exceeds the add'l costs
- What if we add a new [unnamed] revenue source that grows at an outsized rate, 10% annually, and starts with a net income of $1.0
- Conclusion – the upside of the new revenue is swamped by the size and dynamics of the core model

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Sample College - pro forma standard size income statement (2012/13 = 100)

Base case - effect of new revenue source [net $1.0/yr with 10% growth]

	2013		2014	2015	2016	2017	2018	2019	2020
	Base	***Growth***	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**
tuition	**112.9**	*3.5%*	116.9	120.9	125.2	129.6	134.1	138.8	143.6
fin aid	**(54.0)**	*4.5%*	(56.4)	(58.9)	(61.6)	(64.4)	(67.3)	(70.3)	(73.4)
net tuition	**58.9**		60.5	62.0	63.6	65.2	66.8	68.5	70.2
room and board	**13.2**	*4.0%*	13.7	14.3	14.8	15.4	16.1	16.7	17.4
endowment	**19.5**	*1.0%*	19.7	19.9	20.1	20.3	20.5	20.7	20.9
new program [net]	**1.0**	*10.0%*	1.1	1.2	1.3	1.5	1.6	1.8	1.9
gifts and other	**8.4**	*4.0%*	8.7	9.1	9.4	9.8	10.2	10.6	11.1
revenues	**101.0**		**103.7**	**106.5**	**109.3**	**112.2**	**115.2**	**118.3**	**121.5**
growth rate from prev yr			**2.7%**	**2.7%**	**2.7%**	**2.7%**	**2.7%**	**2.7%**	**2.7%**
compensation	**60.0**	*4.0%*	62.4	64.9	67.5	70.2	73.0	75.9	79.0
program	**30.0**	*3.0%*	30.9	31.8	32.8	33.8	34.8	35.8	36.9
debt/capital	**10.0**	*4.0%*	10.4	10.8	11.2	11.7	12.2	12.7	13.2
expenses	**100.0**		**103.7**	**107.5**	**111.5**	**115.7**	**119.9**	**124.4**	**129.0**
growth rate from prev yr			**3.7%**	**3.7%**	**3.7%**	**3.7%**	**3.7%**	**3.7%**	**3.7%**
difference between inc and exp growth			**-1.0%**	**-1.0%**	**-1.0%**	**-1.0%**	**-1.0%**	**-1.0%**	**-1.0%**
Net	**1.0**		**0.0**	**(1.1)**	**(2.2)**	**(3.4)**	**(4.7)**	**(6.1)**	**(7.5)**
Discount rate	47.8%		48.3%	48.7%	49.2%	49.7%	50.2%	50.6%	51.1%
Net tuition/FTE growth			2.6%	2.6%	2.5%	2.5%	2.5%	2.5%	2.5%

So let's just add more students

- Add 100 students [5% more] permanently
- This adds revenue early on
- But the trend lines are still out of whack
- And there's no way to keep adding [residential] students
- This just postpones the problem

Sample College - pro forma standard size income statement (2012/13 = 100)

Effect of 5% more students [approx 100] permanently at avg disc rate

	2013		2014	2015	2016	2017	2018	2019	2020
	Base	*Growth*	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**
tuition	**112.9**	*3.5%*	**122.7**	127.0	131.4	136.0	140.8	145.7	150.8
fin aid	**(54.0)**	*4.5%*	(59.2)	(61.9)	(64.7)	(67.6)	(70.6)	(73.8)	(77.1)
net tuition	**58.9**		63.5	65.1	66.8	68.5	70.2	71.9	73.7
room and board	**13.2**	*4.0%*	13.7	14.3	14.8	15.4	16.1	16.7	17.4
endowment	**19.5**	*1.0%*	19.7	19.9	20.1	20.3	20.5	20.7	20.9
gifts and other	**8.4**	*4.0%*	8.7	9.1	9.4	9.8	10.2	10.6	11.1
revenues	**100.0**		**105.6**	**108.4**	**111.2**	**114.0**	**117.0**	**120.0**	**123.0**
growth rate from prev yr			5.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
compensation	**60.0**	*4.0%*	62.4	64.9	67.5	70.2	73.0	75.9	79.0
program	**30.0**	*3.0%*	30.9	31.8	32.8	33.8	34.8	35.8	36.9
debt/capital	**10.0**	*4.0%*	10.4	10.8	11.2	11.7	12.2	12.7	13.2
expenses	**100.0**		**103.7**	**107.5**	**111.5**	**115.7**	**119.9**	**124.4**	**129.0**
growth rate from prev yr			3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
difference between inc and exp growth			**1.9%**	**-1.1%**	**-1.1%**	**-1.1%**	**-1.1%**	**-1.1%**	**-1.1%**
Net	**0.0**		**1.9**	**0.8**	**(0.4)**	**(1.6)**	**(3.0)**	**(4.4)**	**(6.0)**
Discount rate	47.8%		48.3%	48.7%	49.2%	49.7%	50.2%	50.6%	51.1%
Net tuition/FTE growth			7.7%	2.6%	2.5%	2.5%	2.5%	2.5%	2.5%

We'll just raise more money…

- It's hard for annual giving to grow much faster than the economy or household income
- There are generally some opportunities to broaden the base of giving
- This is generally the smallest component of the revenue picture, so even significant increases have only a modest effect on the overall picture

Sample College - pro forma standard size income statement (2012/13 = 100)

Effect of larger annual fundraising

	2012		2013	2014	2015	2016	2017	2018	2019
	Base	*Growth*	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
tuition	**112.9**	*3.5%*	116.9	120.9	125.2	129.6	134.1	138.8	143.6
fin aid	**(54.0)**	*4.5%*	(56.4)	(58.9)	(61.6)	(64.4)	(67.3)	(70.3)	(73.4)
net tuition	**58.9**		60.5	62.0	63.6	65.2	66.8	68.5	70.2
room and board	**13.2**	*4.0%*	13.7	14.3	14.8	15.4	16.1	16.7	17.4
endowment	**19.5**	*1.0%*	19.7	19.9	20.1	20.3	20.5	20.7	20.9
gifts and other	**8.4**	*10.0%*	9.2	10.2	11.2	12.3	13.5	14.9	16.4
revenues	**100.0**		**103.1**	**106.3**	**109.7**	**113.2**	**116.9**	**120.8**	**124.8**
growth rate from prev yr			3.1%	3.1%	3.2%	3.2%	3.3%	3.3%	3.4%
compensation	**60.0**	*4.0%*	62.4	64.9	67.5	70.2	73.0	75.9	79.0
program	**30.0**	*3.0%*	30.9	31.8	32.8	33.8	34.8	35.8	36.9
debt/capital	**10.0**	*4.0%*	10.4	10.8	11.2	11.7	12.2	12.7	13.2
expenses	**100.0**		**103.7**	**107.5**	**111.5**	**115.7**	**119.9**	**124.4**	**129.0**
growth rate from prev yr			3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%
difference between inc and exp growth			**-0.6%**	**-0.6%**	**-0.5%**	**-0.5%**	**-0.5%**	**-0.4%**	**-0.4%**
Net	**0.0**		**(0.6)**	**(1.2)**	**(1.8)**	**(2.4)**	**(3.0)**	**(3.6)**	**(4.2)**
Discount rate	47.8%		48.3%	48.7%	49.2%	49.7%	50.2%	50.6%	51.1%
Net tuition/FTE growth			2.6%	2.6%	2.5%	2.5%	2.5%	2.5%	2.5%

So how can this balance?

- Balancing using only one expense category
- Better net tuition performance and endowment draw
- Hybrid - better net tuition and draw and expense control

Sample College - alternative revenue and income scenarios

	Base case		Alternative Cases				
	Fiscal year 2011/2012 = 100	*Base Case growth rates for all future periods*	Balance by changing the growth rate on only the expense item listed at the top of the column:*			Better net tuition and endow. draw	Better net tuition and draw; cut exp. Gr. Rates by 1%
	Base		Comp	Program	Debt/Capital		
tuition	112.9	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*	*3.5%*
fin aid	(54.0)	*4.5%*	*4.5%*	*4.5%*	*4.5%*	*4.3%*	*4.3%*
net tuition	58.9	*2.6%*	*2.6%*	*2.6%*	*2.6%*	*2.8%*	*2.8%*
room and board	13.2	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
endowment	19.5	*1.0%*	*1.0%*	*1.0%*	*1.0%*	*2.0%*	*2.0%*
gifts and other	8.4	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
revenues	100.0	***2.6%***	***2.6%***	***2.6%***	***2.6%***	***2.9%***	***2.9%***
growth rate from prev yr							
compensation	60.0	*4.0%*	***2.1%***	*4.0%*	*4.0%*	*4.0%*	*3.0%*
program	30.0	*3.0%*	*3.0%*	***-0.7%***	*3.0%*	*3.0%*	*2.0%*
debt/capital	10.0	*4.0%*	*4.0%*	*4.0%*	***-7.2%***	*4.0%*	*3.0%*
expenses	100.0	***3.7%***	***2.6%***	***2.6%***	***2.6%***	***3.7%***	***2.7%***
Net	**0.0**	**-1.1%**	**0.0%**	**0.0%**	**0.0%**	**-0.8%**	**0.2%**

Summary

- The trend lines for revenue and expenses are the issue
- Other revenue sources would have to grow very rapidly to have any effect on the underlying model
- Obviously, expense allocation will play a role here
- If revenue grows at 2% annually, so must expenses

Summary cont'd

- The exercise was more about raising issues than offering a prescription
- Understanding the forces at play and the dynamics of the current model are crucial elements in any discussion of next steps
- The objective here was to sensitize important constituents about the potential directions

Conclusions

- As the third spirit says in "A Christmas Carol", these are not specters of things that will be, but they <u>might</u> occur if present habits go unchanged
- All is not doom and gloom
  - we're still in a business that is respected worldwide
  - it is seen as a necessary purchase by many
  - demand is still pretty strong
- The answer is neither simple nor obvious