

# Finance Literacy Revenue Generation Opportunities

Sibley Auditorium  
1/30/18  
2:00 – 3:00pm

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Academic Ventures and Chief  
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Extension



# Agenda

- Introduction to NAV-B / Framing
- Overview on Approaches
- Introduction to Modeling
- Factors & Key Questions to Consider
- Case Study: Global Access Program

# New Academic Ventures at Berkeley

- Supports academic revenue generating initiatives
  - Financial modeling and analysis
  - Market research, large and small
  - Project management guidance and support
  - Business contracts review (coming soon)
- Contact us for help . . . [navb@berkeley.edu](mailto:navb@berkeley.edu)
  - Brainstorming, evaluating, and developing ideas
  - Launching and scaling up profitable programs
  - Building short- and long-term revenue strategy and plan

# Examples of academic revenue generating initiatives

	Growth Stages	Benefits & Fit	Achievable Revenue Date		
Complexity, Cost, and Risk ↓	Open classroom space for Concurrent enrollment students	<ul style="list-style-type: none"> <li>Feasible for most academic units</li> <li>Relatively light administrative burden</li> <li>Quality students already in pipeline</li> </ul>	Fall 2018	Achievable by most ↑	
	Open new sections for concurrent or summer	<ul style="list-style-type: none"> <li>Fast growth for many academic units</li> <li>You already do this well</li> </ul>	Fall 2018		
	Create new courses	<ul style="list-style-type: none"> <li>Courses can be targeted at market demand</li> <li>Expand pool of electives for smaller units</li> <li>Enhance experience for current students</li> </ul>	Spring 2019		
	<hr/>				Achievable by some ↓
	New Programs, e.g., BHGAP, summer minor	<ul style="list-style-type: none"> <li>Large, premium programs that bundle courses</li> <li>Opportunity to create unique experiences</li> <li>Extension can grant certificate for added value</li> </ul>	Fall 2019		
	Create SSDP	<ul style="list-style-type: none"> <li>Prestige offering for large professional schools with robust administrative structures</li> </ul>	Fall 2020		

# Why do we need Financial Modeling?

1

## Validate Opportunity

- ▶ Does business model make sense? Is it even realistic?
- ▶ Raises to the surface factors, expenses, etc. that have not been considered

2

## Explore Return on investment (ROI)

- ▶ Years to break-even; Net Present Value (NPV); Internal Rate of Return (IRR)
- ▶ Helps compare with other competing projects

3

## True Costs

- ▶ How much is it really going to cost? Do we have the money? When do we need it? Can we get it?
- ▶ Raises questions about timing of investment, opportunity cost and organization capacity

4

## Sensitivities

- ▶ How sensitive are our assumptions? What happens if we miss our enrollment target by 10%?
- ▶ Raises critical risks that need to be managed

# Basic Components

		<b>Assumptions</b>						
<b>Assumptions</b>	Course Fee/Unit	\$	730					
	Students/Course		60					
	Instructor Salary/Course	\$	20,500					
	Average Units/Course		3.00					
	Instructor Benefits Rate		0%					
	AFC (Campus Tax), % of revenue		9%					
		<b>Courses Available</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Revenues</b>	Course Enrollments		60	120	180	240	300	360
	<b>Revenue</b>		<b>\$131,400</b>	<b>\$262,800</b>	<b>\$394,200</b>	<b>\$525,600</b>	<b>\$657,000</b>	<b>\$788,400</b>
<b>Expenses</b>	<b>Direct Expenses</b>							
	AFC	\$	11,826	\$ 23,652	\$ 35,478	\$ 47,304	\$ 59,130	\$ 70,956
	Instructor Payroll	\$	20,500	\$ 41,000	\$ 61,500	\$ 82,000	\$ 102,500	\$ 123,000
	Instructor Benefits	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Direct Expenses</b>		<b>\$</b>	<b>32,326</b>	<b>\$ 64,652</b>	<b>\$ 96,978</b>	<b>\$ 129,304</b>	<b>\$ 161,630</b>	<b>\$ 193,956</b>
<b>Profit</b>	<b>Net Revenue</b>	<b>\$</b>	<b>99,074</b>	<b>\$ 198,148</b>	<b>\$ 297,222</b>	<b>\$ 396,296</b>	<b>\$ 495,370</b>	<b>\$ 594,444</b>
	<b>Gross Margin %</b>		<b>75.4%</b>	<b>75.4%</b>	<b>75.4%</b>	<b>75.4%</b>	<b>75.4%</b>	<b>75.4%</b>

# Revenue Key Questions

Generally: Revenue = Students Enrolled \* Price per Student

Students Enrolled	Price per Student
How big is the overall market?	What are students willing to pay?
How much of it can we reach?	What do competitors charge?
What percent will apply?	Who is the competition?
What percent will accept?	What can we get approved?
What percent will yield?	Can we raise or lower later?
How many starts per year?	What about financial aid?

# Expense Key Questions

Generally: Expenses = Students Enrolled \* Cost per Student + Fixed Expenses

Cost per Student	Fixed Expenses
What do we pay instructors?	Faculty development costs?
How many GSI/student needed?	Course production and updates?
Student support staff/student?	Program administration?
Admissions staff/applicant?	Marketing staff?
Technology licensing/services?	Technology infrastructure?
Digital advertising?	Classroom space?



# In reality it's much more complicated...

These things are all related!

- Higher price → fewer students
- More flexible admissions → more students
- Longer program → higher price AND fewer students
- Lower acceptance rate → higher cost of advertising
- More attractive program → lower cost of advertising

A good model helps understand the costs and benefits of these tradeoffs

# And we have to accept a lot of uncertainty...

Enrollments tend to drive everything and they're really hard to predict

For new programs we can only make educated guesses with high margin of error

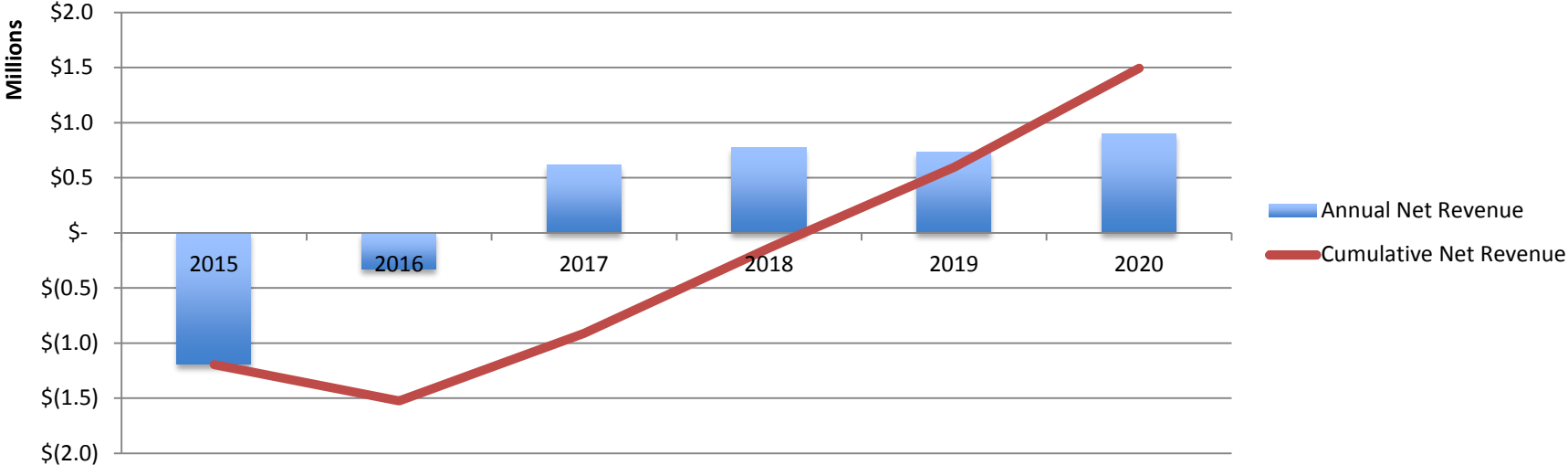
- Market research helps reduce (but not eliminate) the uncertainty
- Pilots give real data
- De-risk the program to minimize losses if we're wrong

A good model helps us understand this uncertainty

# How do we know if it's a good investment?

A typical revenue generating program incurs some amount of loss in the first year(s) as we build the program, followed by some number of years of positive return.

**Net Revenue**



A good model helps us visualize and understand cash flows over time

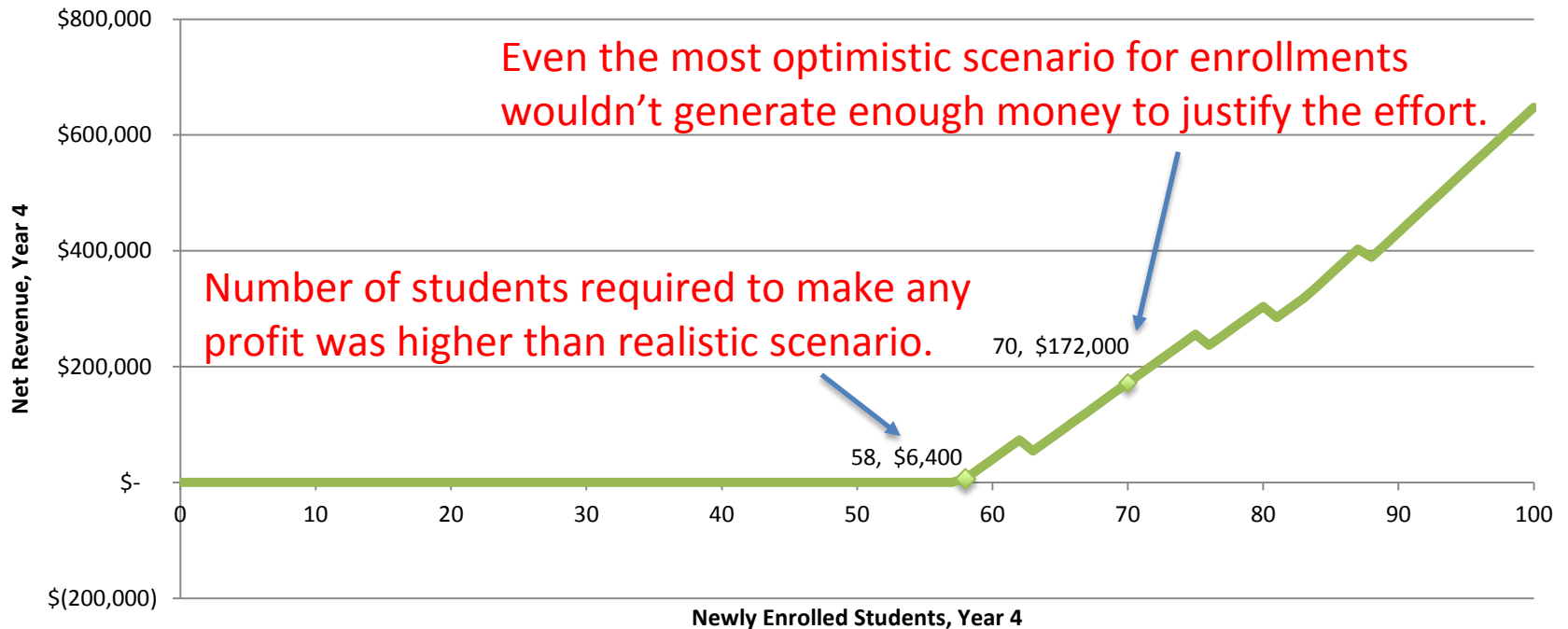
# How do we know if it's a good investment - Metrics

Metric	Description	Flaw
Years to Positive Cash flow	How many years will it take until the annual revenues exceed the annual expenses?	Doesn't account for the initial investment, address timing of cash flows, or overall value of project.
Years to Break Even	How many years will it take to earn enough net revenue to pay off initial investment?	Doesn't address timing of cash flows or overall value of project.
Net Present Value (NPV)	Present day value of the program discounting future revenue and expenses to "present value"	What discount rate should we use? Hard to explain to non-finance people.
Internal Rate of Return (IRR) Modified Internal Rate of Return (MIRR)	Calculated rate of return at which the project breaks even, <i>i.e.</i> , NPV is 0	Doesn't account for scale. Sometimes overestimates return.
Gross Margin %	Revenue minus direct expenses divided by revenue	Doesn't account for fixed costs or initial investment. Doesn't work well for comparing different types of projects.
Breakeven students/sales/etc.	At steady state, how many students do we need to be happy with the project?	What is steady state? What do we measure against, <i>e.g.</i> , positive cash flow, repayment of investment, worthwhile profit?

# How do we know if it's a good investment - Example

The simple chart below was enough to convince a department not to pursue an idea under consideration.

### Net Revenue at Various Enrollment Sizes, Year 4



# Characteristics of a Good Model

- Easy to change assumptions and see the bottom-line impact
  - What happens to profit if enrollments are 10% lower than expected?
- Provides year-by-year revenue and cost projections
  - When will revenues first exceed costs?
- Communicates program economics effectively for decision makers
  - In what year do we recoup our investment?
  - How many enrollments must we achieve to do that?
- Accounts for all direct and “indirect” costs
  - What is the value of all the time consumed by university faculty staff outside the program during its development and ongoing delivery? Is that all included?

# Revenue assessments and set-asides

Assessment	%	Description
Administrative Full Costing (AFC)	9%	Central assessment on external funds received from the sales & services of educational activities, auxiliary enterprises, agency activities, service enterprises, and other operating revenue to reimburse central campus for administrative costs incurred in support of external rev-gen activities.
Self-Supporting Graduate Professional Degree Programs (SSGPDP)	15%	Revenue sharing assessment set by EVCP that generates central campus funding.
Campus Philanthropic Allocation (fka the gift fee)	5.0%	Following the recommendations of a campus task force that comprised donors and faculty members, effective July 1, 2016, 5 percent of every private, non-research gift UC Berkeley receives will be directed to support fundraising. 2.5 percent of every gift will be directed to the school, college, or program the gift supports. This percentage is unchanged from the previous policy. The other half will be allocated to the Budget Office for further investments in development campuswide.
Returned to Center	2.5%	
Routed to Dean	2.5%	
Return-to-Aid (RTA) on student fees		
Campus-Based Fees (required)	33%	New fees or increases to existing fees must include 33% RTA *
PDST Fees (required)	33%	Financial aid sources for PDST students must be supplemented by an amount equivalent to at least 33% of new PDST fee revenue (RTA \$\$ can come from non-fee funds) *
SSGPDP Fees (not required)	n/a	Program discretion <i>*some older programs/fees may be grand-fathered in at lower RTA rates</i>

Please note this list is not exhaustive. Certain assessments (ie Campus Based Fees) or other decanal fees at the local level may need to be considered such as a common good assessments implemented by your Dean/VC.

# Summer Sessions and Concurrent Enrollment

Summer Sessions Departmental Share	
Margin Share	23%
Per Course (3+ units)	\$1,500
Per Student Credit Hour	\$23

Concurrent Enrollment Departmental Share	
Base share of gross revenue	50%
Bonus for cohorts >15 students recruited by department	+10%
Bonus for units enrolled above 1,200 units within department	+10%



# Deferring Summer Session Revenue

- Summer session revenue is *deferred* to the *next fiscal year*
- Meaning revenue seen in the current year is from the previous year
- The process is done on a monthly basis for any revenue account in Summer Sessions under 'Student Tuition & Fees'
- Process
  1. Each month a revenue account is credited to summer session's chartstring (separate account and fund), meaning the local Department never sees it
  2. At month close, Summer sessions manually defers the revenue into the next fiscal year
  3. In July of the next fiscal year, the deferrals are reversed with guidance from Central Accounting and credited back to the revenue account in Summer Sessions

# What about working with vendors?

Financial modeling is just as important for third-party partnerships

## Online Program Managers (OPM)

- You get a share of revenue and a set of ongoing expenses you're responsible to pay
- Need to model the program over the full length of commitment to understand economics
- Modeling requires assumptions about not only your operation, but also the vendor
- Worst case: you get locked into a deal with contractual commitments you can't afford to pay

# What about working with vendors? (continued)

Financial modeling is just as important for third-party partnerships

## Fee-for-Service

- Vendor invoices you for their services at a rate that varies with effort, cost, performance, etc
- Easier to model, but can be expensive if you don't build in controls!
- Think carefully about the vendor's incentives – they get paid even if the program fails
- Worst case: you get a huge bill even after enrollments miss their target

# How you describe the vendor relationship matters

Common academic program opportunity:

Deliver an academic program with help from an external vendor

If you describe it as a partnership in which both sides share responsibility and the vendor gets a share of revenue

--> **business contract**

If you describe it as a Berkeley program in which the vendor is hired to provide a specified set of services at a negotiated price (fixed amount or per student)

--> **procurement**

# Global Access Program Case Study

Thank You!  
And GO BEARS

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