USING RETURN ON INVESTMENT MODELS OF PROGRAMS AND FACULTY FOR STRATEGIC PLANNING©

Dr. Lawrence J. Redlinger, Executive Director
Nicolas Valcik, Assistant Director
The Office of Strategic Planning and Analysis
The University of Texas at Dallas

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FACULTY RESPONSIBILITIES

Teaching

Research

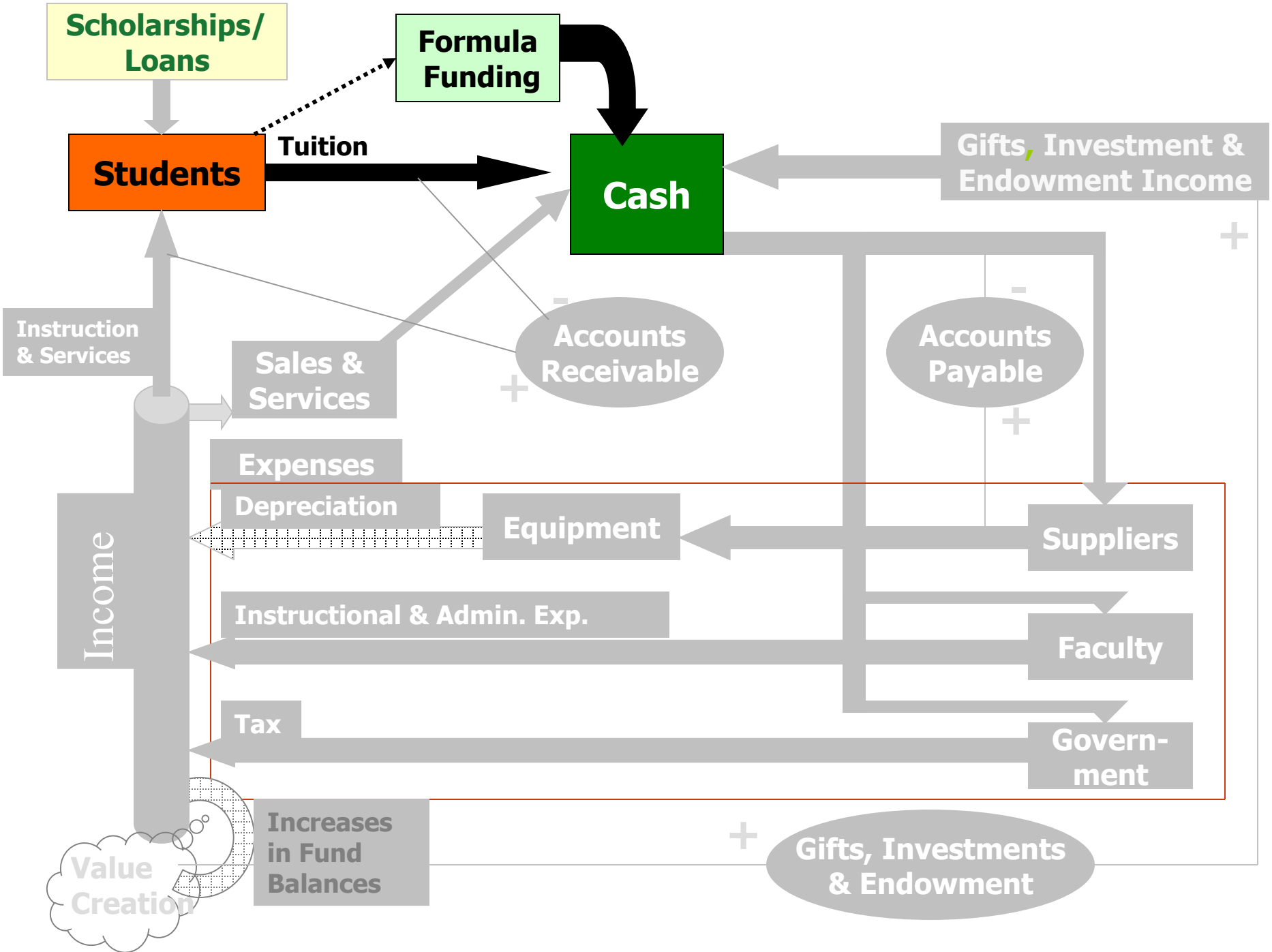
Administrative Service

ALL FACULTY RESPONSIBILITIES CREATE VALUE FOR THE UNIVERSITY.

ALL FACULTY RESPONSIBILITIES ENTAIL COSTS FOR THE UNIVERSITY .

⇒We do not believe that all programmatic and faculty activity can be reduced to financial considerations.

⇒We do believe financial considerations must play an important part in accessing how resources are invested by the university and if those investments are in the best interests of the students, and the taxpayers.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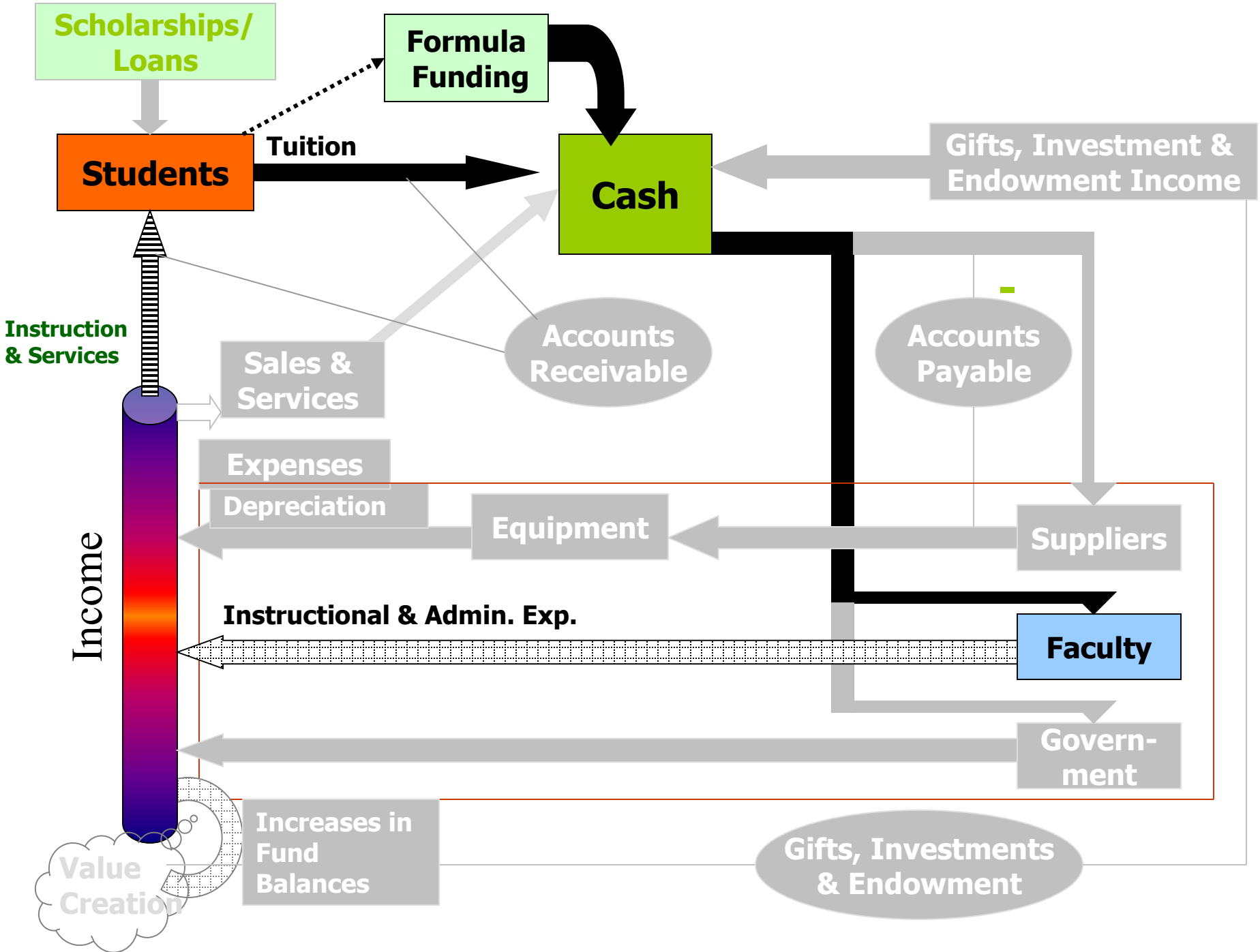
Formula Funding
Students
Tuition
Cash
Gifts, Investment & Endowment Income
Instruction & Services
Sales & Services
Accounts Receivable
Accounts Payable
Expenses
Depreciation
Equipment
Suppliers
Income
Instructional & Admin. Exp.
Faculty
Tax
Govern-ment
Increases in Fund Balances
Value Creation
Gifts, Investments & Endowment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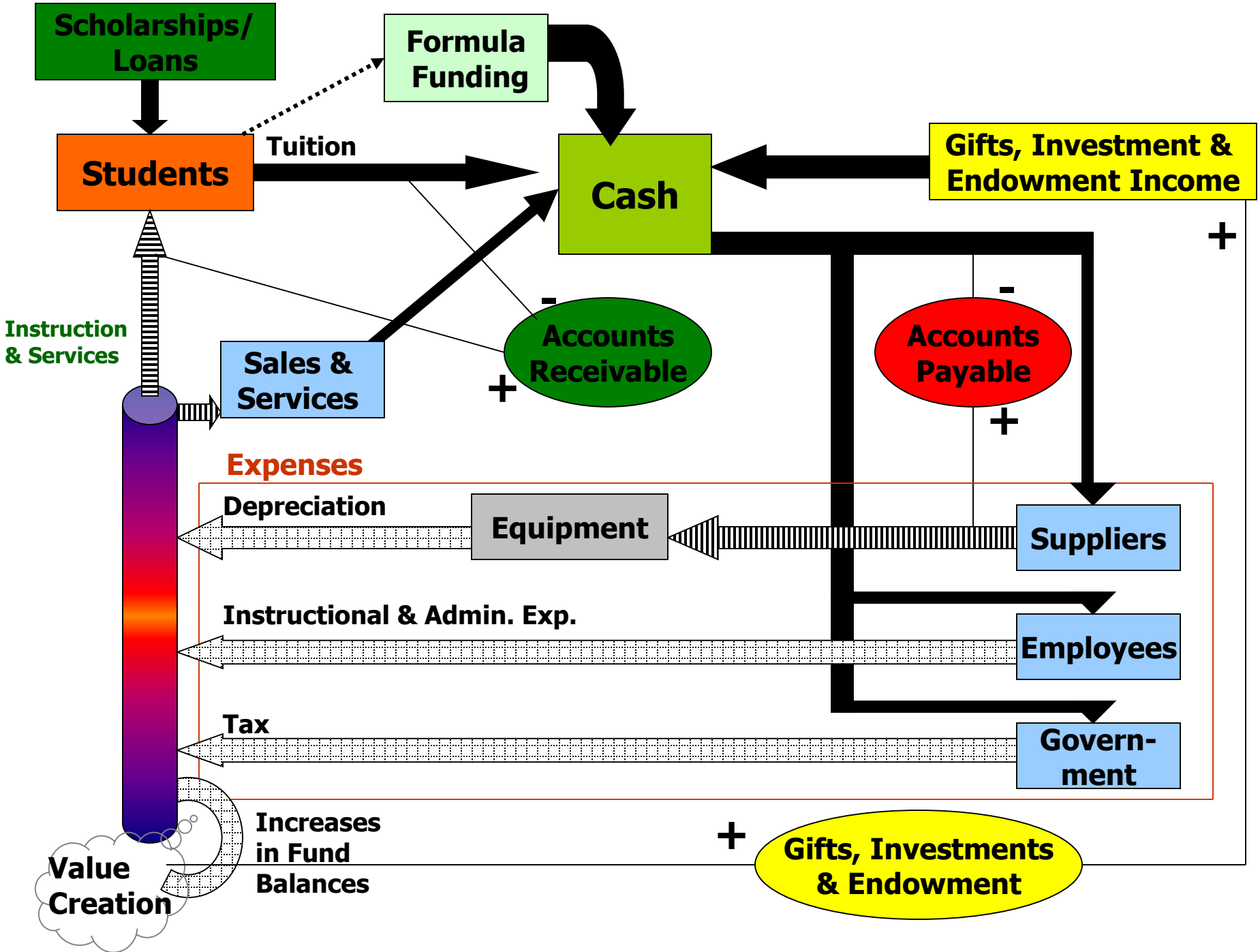
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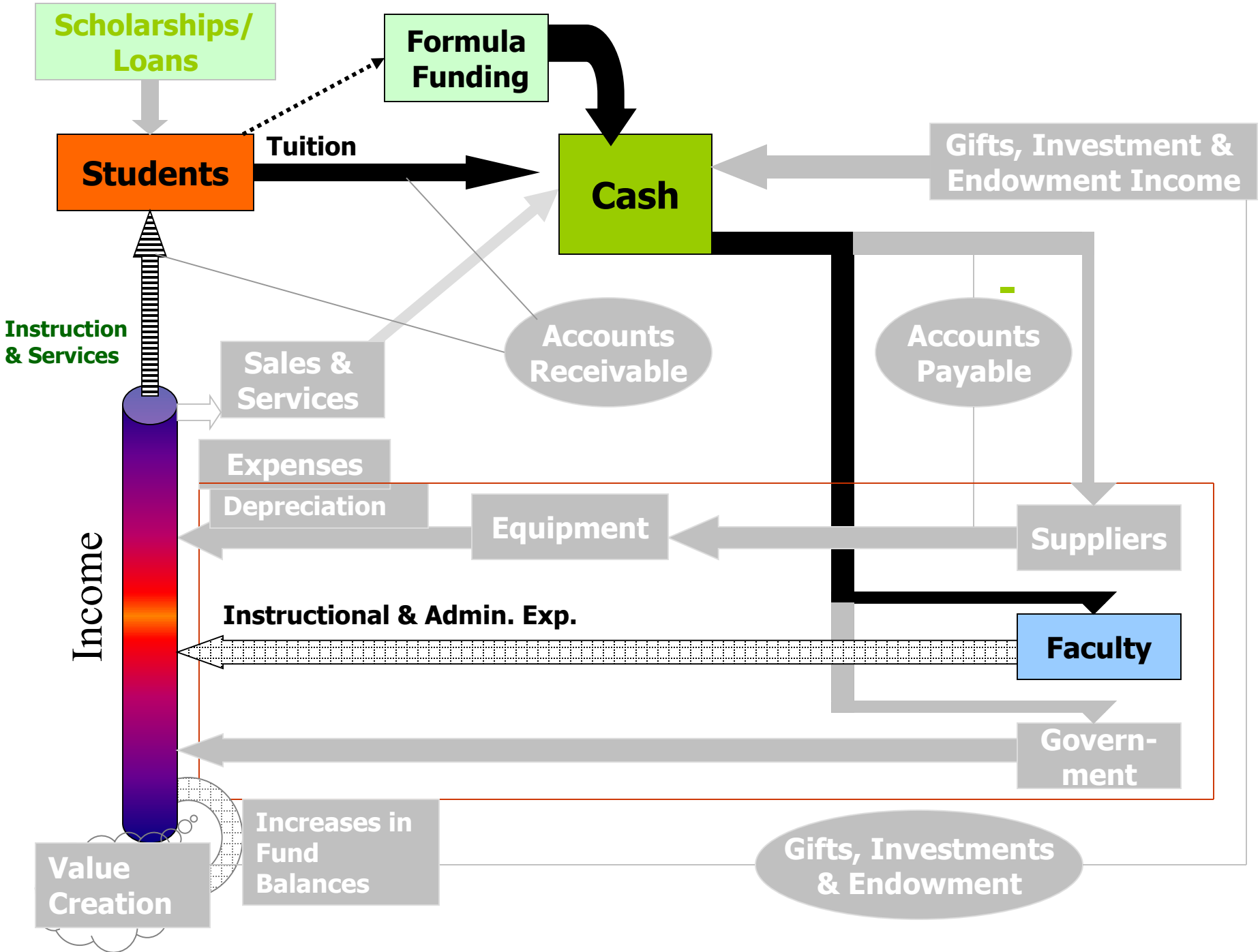
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2000-01 FUNDING FORMULA COEFFICIENTS

✖ The gross base value for a formula unit of one student semester credit hour is $54.44. The net-to-unit value is $46.01 or 84.6%. For some Biennia, the Legislature did not fund the formula at 100%.

✖ The funding formula provides support for faculty salaries, departmental operating expenses, instructional administration, library, research enhancement, student services, and institutional support.

Type	Lower Division	Upper Division	Masters	Doctoral
Liberal Arts	1	1.96	3.94	12.04
Science	1.53	3	7.17	19.29
Fine Arts	1.85	3.11	6.51	17.47
Teacher Education	1.28	1.36	3.23	9.95
Engineering	3.01	3.46	8.2	21.4
Health Services	2.87	3.46	6.47	15.98
Business Administration	1.41	1.59	4.59	13.91

Source: UTD Office of Strategic Planning and Analysis

STATE FORMULA FUNDING ACADEMIC YEAR 2000-2001

Category	De Facto Rate per Earning Unit‡
Faculty Salaries	$33.65
Departmental Operations	$6.09
Instructional Administration*	$2.12
Direct Research Support**	$1.65
Library	$2.50
Total	$46.01
State Provided Rate =	$54.50

‡ One Unit = One Lower Level Undergraduate Liberal Art Hour
*Includes Deans' Offices and Computer Support, but does not include Provost Office
** Support for Research Centers

Source: UTD Provost Office, January 2001

EXCEPTIONS

- RETINA does not take into account administrative duties or contracts and grants acquired by Faculty members.
- RETINA does not exclude non-funded students.
- RETINA excludes non-funded courses.

FUNDING CONSIDERATIONS

Tuition Generated

+

Formula Funding by State

❼

Legislative Budget by State

Research Grants

Endowment Income &Donations

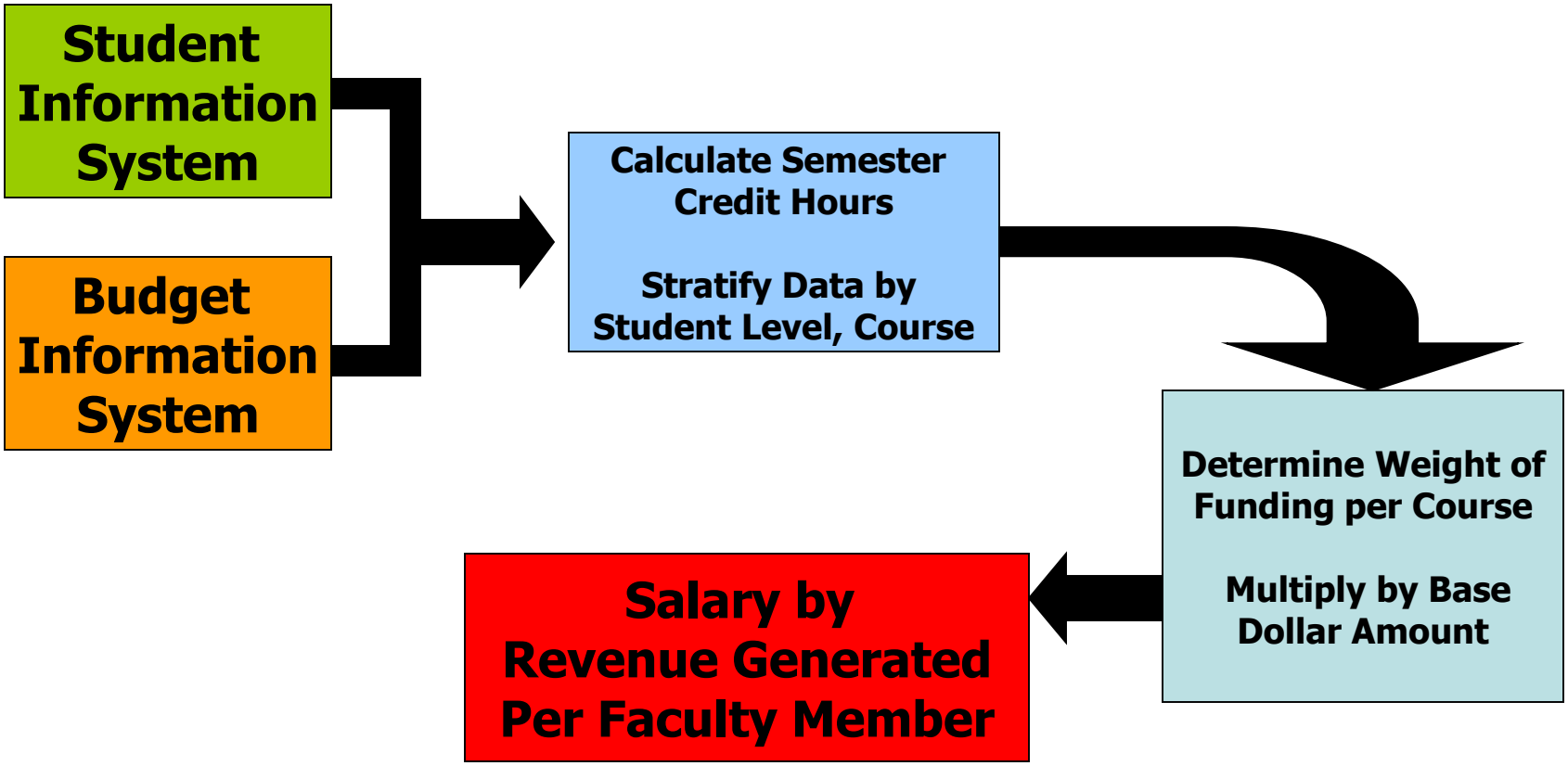
RETurn on INvestment Analysis

RETINA

This powerful program calculates:

- Revenue Generated for the Academic Year,
- Including Tuition and Formula Funding per Course
- Costs of Faculty Salaries
- ROI by Faculty, Departments and Schools
- Expenditures on Research Assistants and Teaching Assistants
- Overhead Costs of a School or Department.

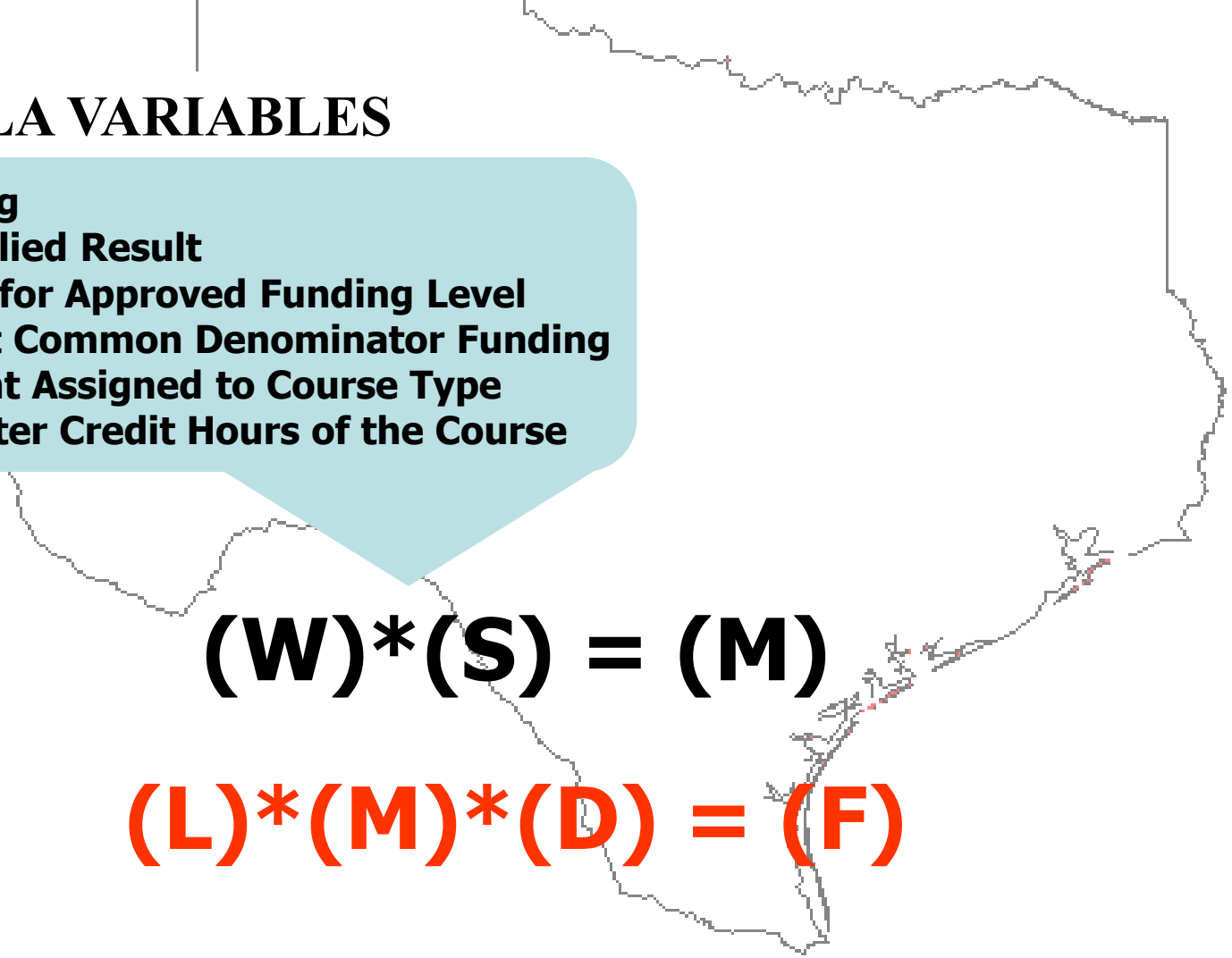
METHODOLOGY FOR RETINA



FORMULA FUNDING: REVENUE STREAMS IN TEXAS PUBLIC HIGHER EDUCATION

FORMULA VARIABLES

(F) – Funding
(M) – Multiplied Result
(D) – Dollar for Approved Funding Level
(L) – Lowest Common Denominator Funding
(W) – Weight Assigned to Course Type
(S) – Semester Credit Hours of the Course



(W)*(S) = (M)

(L)*(M)*(D) = (F)

School	Dept.	Name	% of Time on State Funds	Academic Year State Salary	Tuition & Formula Funds Generated	Annual ROI for Tuition & Formula Funding - State Salary in 2000-01
LSA	FA	Adams, D.	50%	$2,000.00	$14,000.00	$12,000.00
ENG	CSE	Curtis, T.	50%	$4,000.00	$14,000.00	$10,000.00
TA Subtotals				**$6,000.00**	**$28,000.00**	**$22,000.00**
LSA	HIST	Bacon, K.	100%	$2,250.00	$13,000.00	$10,750.00
ENG	CSE	Hovis, L.	100%	$3,250.00	$6,000.00	$2,750.00
ENG	ME	Larson, G.	100%	$21,250.00	$37,000.00	$15,750.00
SCE	BIO	Rembrant, C.	100%	$5,000.00	$55,000.00	$50,750.00
Lecturers Subtotal				**$31,000.00**	**$111,000.00**	**$80,000.00**
LSA	SOC	Brown, C.	100%	$40,000.00	$180,000.00	$140,000.00
ENG	CSE	King, S.	100%	$75,000.00	$71,000.00	($4,000.00)
ENG	SOF	Kirk, J.	100%	$40,000.00	$89,000.00	$49,000.00
SCE	AST	Simpson, L.	100%	$60,000.00	$89,000.00	$29,000.00
Tenure - Track Faculty S				**$215,000.00**	**$429,000.00**	**$214,000.00**
LSA		Adar S.	100%	$55,000.00	$85,000.00	$30,000.00
ENG	S	Gates, B.	90%	$120,000.00	$31,000.00	($89,000.00)
ENG	SC	Jobs, S.	88%	$175,000.00	$230,000.00	$55,000.00
SCE	PSY	Hartley, R.	100%	$70,000.00	$114,000.00	$44,000.00
SCE	BIO	Cousteau, J.	90%	$38,000.00	$0.00	($38,000.00)
SCE	BIO	Irwin, S.	89%	$76,000.00	$335,000.00	$259,000.00
SCE	BIO	Irwin, T.	89%	$76,000.00	$270,000.00	$194,000.00
SCE	PHY	Bond, J.	89%	$80,000.00	$25,000.00	($55,000.00)
Tenured Faculty Subtotal				**$690,000.00**	**$1,090,000.00**	**$400,000.00**
Grand Total for the University				**$942,000.00**	**$1,658,000.00**	**$716,000.00**

EXAMPLE

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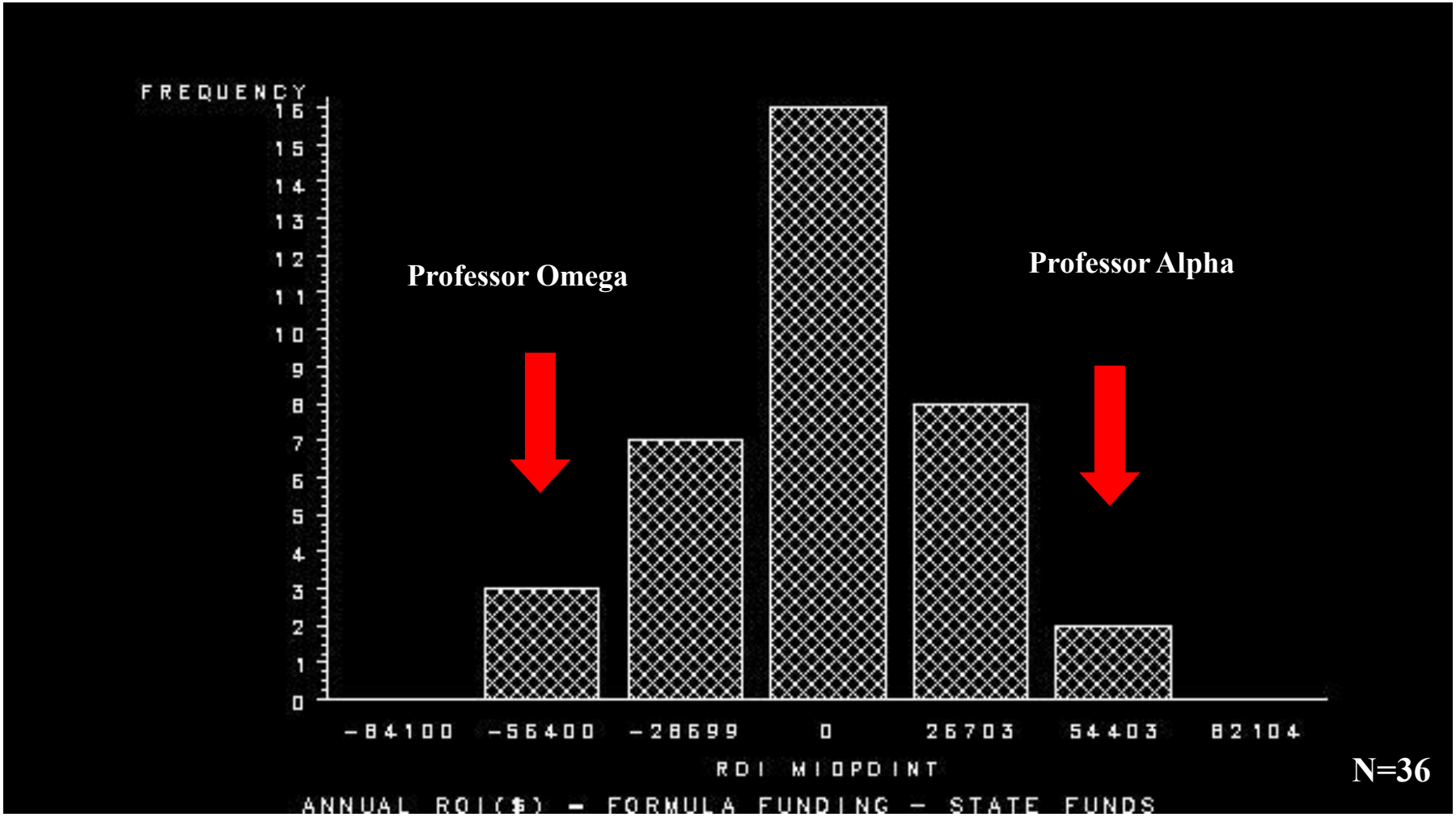
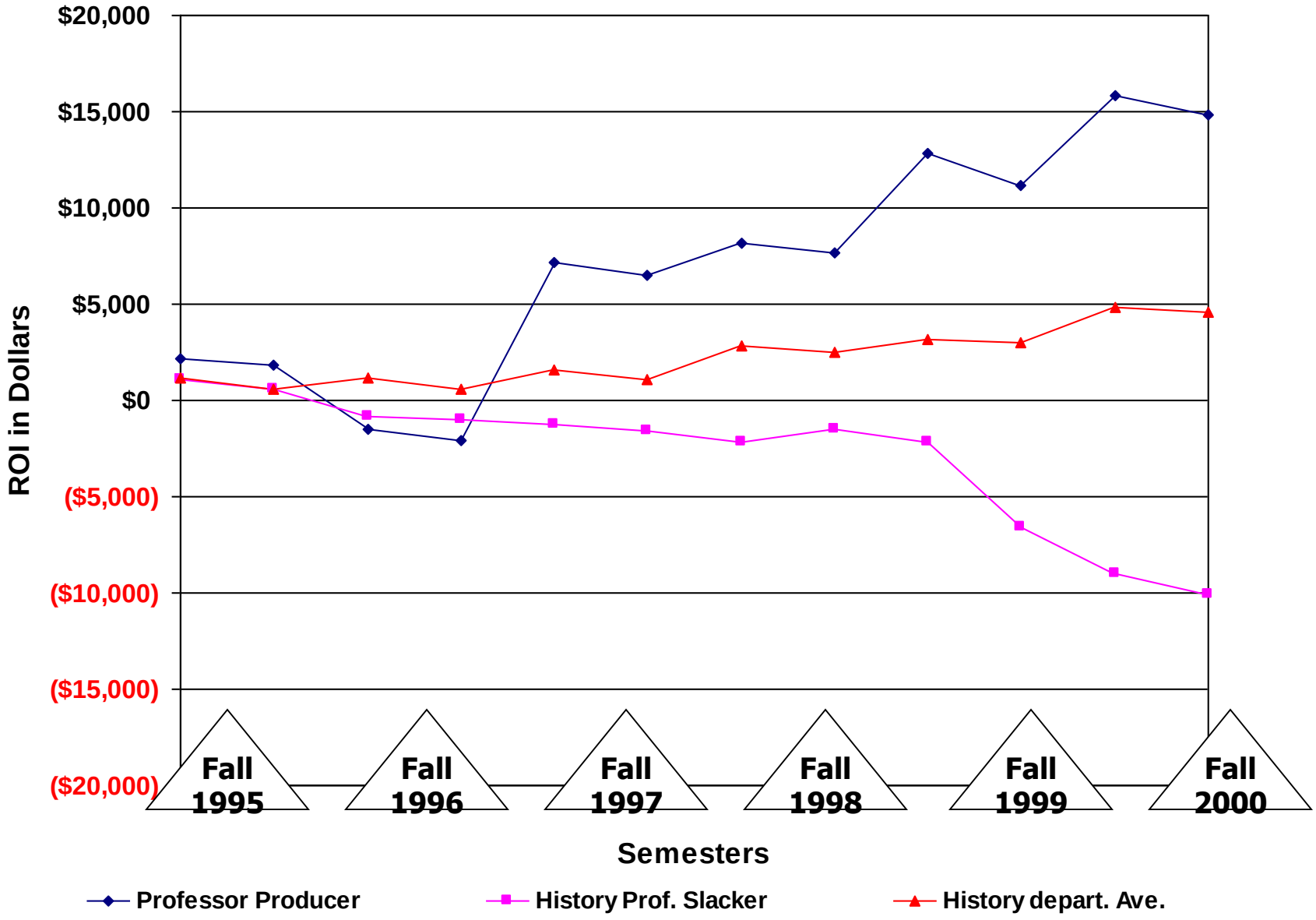
HISTOGRAM OF REVENUE OUTLIERS



Source: UTD Office of Strategic Planning and Analysis, October 2001

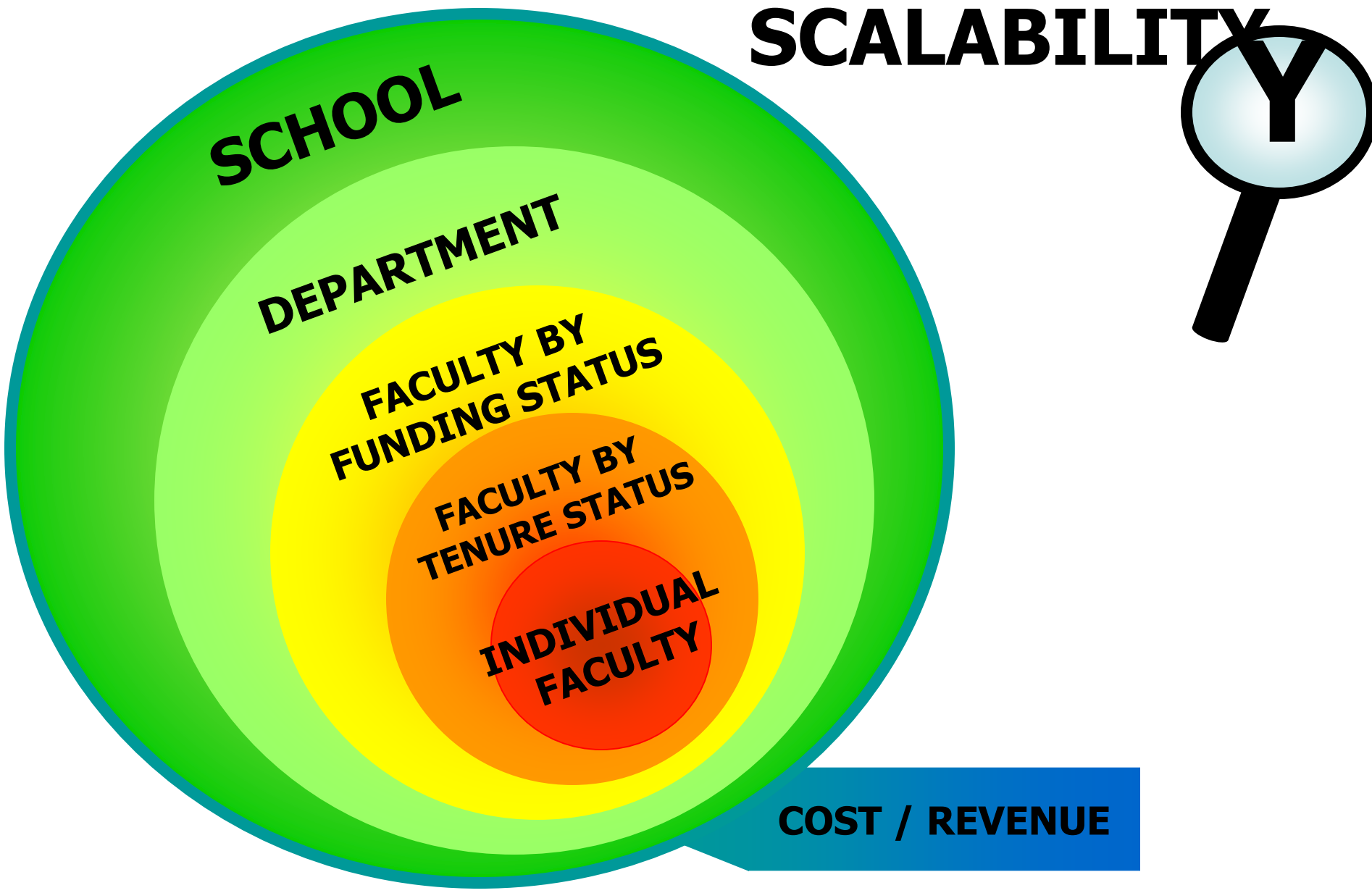
RETURN ON INVESTMENT



Source: UTD Office of Strategic Planning and Analysis, October 2001

Costs of Programs

- Faculty Salary – Percentage funded by State funds?
- Departmental Unit paying salary.
- Type of Course - What Type of Facilities and equipment are necessary?
- Enrollment - How many students at what classification level actually took the class?
- Other Associated Costs


SCALABILITY
SCHOOL
DEPARTMENT
FACULTY BY FUNDING STATUS
FACULTY BY TENURE STATUS
INDIVIDUAL FACULTY
COST / REVENUE

Concluding Observations

RETINA allows for a comparative database analyze productivity and traditional means of making resource allocations.

RETINA promotes efficiencies and accountability.

RETINA as part of the larger database allows for examination of the drivers of performance (course, instructor, time of offering, etc) and relative overhead costs by academic unit.

RETINA allows for "what if" revenue/costs projection scenarios under various growth,status quo and enrollment declines.

With Student Flow data, RETINA allows for an analysis of the dependency relationships between academic units. As such it is a robust decision analysis tool.

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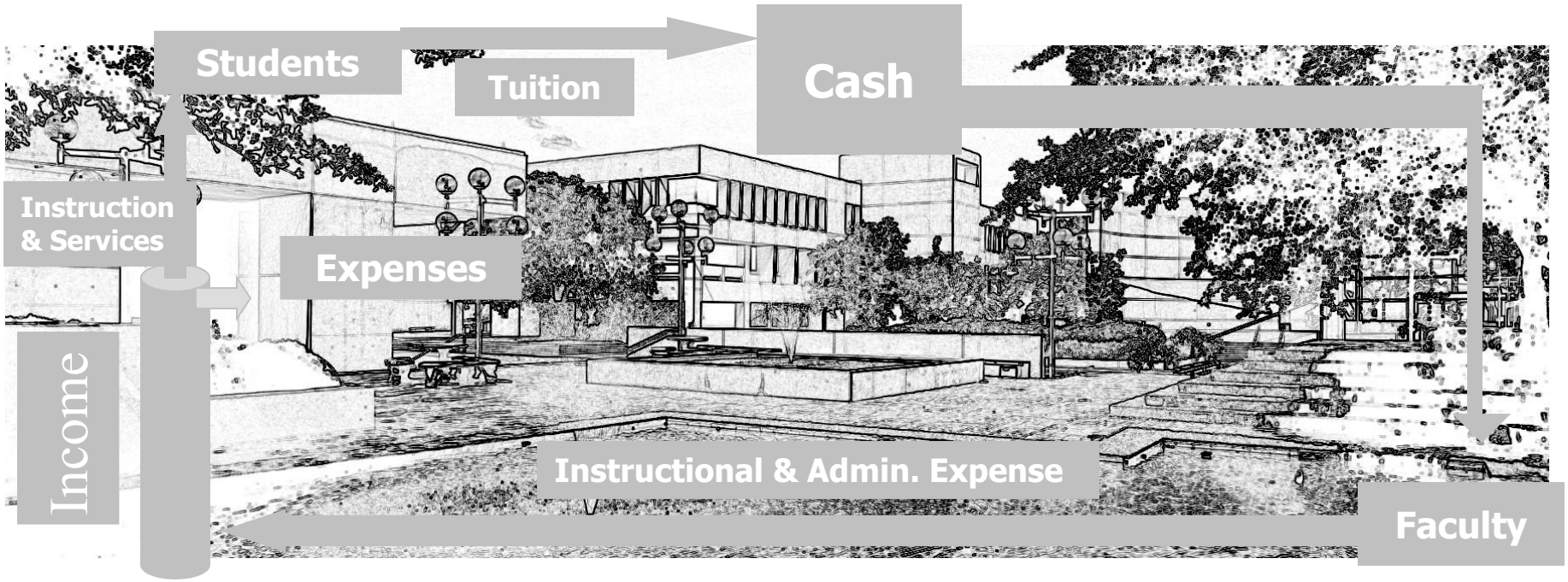

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