

Educational RVU systems

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“Medical Education is by far the most endangered part of the medical school’s traditional mission.”

Ludmerer KM. Time to heal: American Medical Education from the turn of the Century to the Era of Managed Care. NY Oxford University Press 1999, pg. xxv.

Addressing the Problem

- Numerous task forces, committees and groups have recognized the problem
- **1984.** General Professional Education of the Physician (AAMC) committee: “Deans and Departmental Chairmen should elevate the status of the general professional education of medical students to **assure faculty members that their contributions to this endeavor will receive appropriate recognition**” (1)

Addressing the Problem (cont'd)

- GPEP report also recommended that each medical school establish a distinct budget for its educational programs
- 1993. ACME-TRI report: acknowledged the difficulty in recognizing faculty contributions to education due to lack of criteria to evaluate and measure teaching efforts (1).

Addressing the Problem (cont'd)

- **2000.** Expert Panel (AAMC) published a blueprint for developing a relative-value-scale approach (1). The report includes definition of teaching/education programs, categories of education work, and education activities that faculty perform in each of the work areas.

Types of Teaching Activities Measured in Various Educational Metric Systems in 41 U.S. and Canadian Medical Schools or Departments, April 2001

Activity	Institutions
1. First two years of medical student teaching	Brown (hospital-based faculty), Iowa
2. Clinical teaching of medical students	Indiana University Department of Medicine
3. Medical student teaching	Alabama (school-wide), Baylor, Cincinnati, Illinois–Chicago, Maryland, Miami, Michigan State, Saint Louis
4. Medical student and GME teaching	LSU–New Orleans*
5. Medical student, GME, and graduate student teaching; educational administration	Cornell, Kentucky
6. Teaching of medical students, GME, graduate students, and in other schools	Arizona*
7. Teaching of medical students and graduate students; educational administration and/or committees	Pittsburgh, Rochester, Vermont, Wake Forest, Wisconsin
8. Teaching of medical students, UME, graduate students, and other university teaching; educational administration and/or committees	Michigan
9. Teaching of medical students, GME, graduate students, and in other divisions; committee work, educational administration	Alabama Department of Medicine, Florida, Loyola, Southern Illinois, SUNY Buffalo Department of Family Medicine, Utah, UC–Davis
10. Teaching of medical students, GME, graduate students, CME, and in other divisions; committee work, educational administration	Creighton, Dartmouth, East Carolina, Mayo, McMaster, Medical College of Georgia, Minnesota, New Mexico, Oklahoma

* System no longer in place.

Contact-hour, Credit-hour, and Relative-value Methods for Measuring Faculty Contributions to Education at U.S. and Canadian Medical Schools, April 2001

Method	No.	Institutions
Contact hours only (no prep time)	7	Alabama (school-wide), Arizona, Connecticut, Cincinnati, Iowa, Kentucky, Michigan State
Contact hours plus preparation time	15	Baylor, Brown, Creighton, Dartmouth Department of Medicine, Florida, Illinois–Chicago, Loyola, Maryland, Medical College of Georgia, Michigan, Minnesota, New Mexico, Utah, Vermont, Wake Forest
Credit hours only	1	Wisconsin
Relative-value-unit model	18	Alabama Department of Medicine, Cornell, East Carolina, Indiana University Department of Medicine, Mayo, McMaster, MCP Hahnemann, LSU–New Orleans, Miami, MUSC, Oklahoma, Pittsburgh, Rochester, Saint Louis, Southern Illinois, SUNY at Buffalo Department of Family Medicine, UC–Davis, West Virginia

Pros

- Alignment with mission
- Improve faculty involvement with education
- Improve learning environment
- Indirectly enhance faculty satisfaction for those who have interest in education
- Impact on faculty attrition
- Could result in a systematic and rational method for distribution of dollars, state appropriation and other funds to support education
- Could bring clarity on resources spent on teaching activities and allocations by faculty/department
- Might indirectly improve department chairs "mistrust" of the deans office on hidden pools of money (sensitive topic, and again related to clarity on budget)
- Could counteract the myth that faculty can't afford to spend time in education. Again the concept that education cost money, as supposed to education can SAVE money
- Could provide an incentive for faculty members to participate in teaching activities
- Will enhance and make the educational mission more visible

Cons

- Lack of a culture of data (outcomes): the fear of clarity and accountability, concerns on transparency. Potential solutions: the article recommends to move slow with clear goals and well explained rationale, risks and benefits. Ongoing communication with key stakeholders, dynamic and continuous change
- Fear of micromanagement
- Search of the Holy Grail: there is NO PERFECT METHOD. It should be an ongoing, dynamic, ever changing method. With common principles and outcomes, but flexible
- Quality vs Involvement: easy to track participation, hard to measure quality

Possible solutions

- Mission- Based Budgeting
 - Align revenues with actually activities performed based on mission of the institution
- Educational Relative Value Units (ErVU's)
 - Assign units for educational work based on time or value
 - Financial incentives given based on number of units
- Time Banking
 - Incentive for educational work are credits for work or home support rather than money

Our experience with eRVUs

- Implemented in 2014
- Each faculty member's activity within the department was then plotted and measured on the matrix.
- The matrix time/relevance combinations were given number assignments in order to produce a numerical value for the effort each faculty member was giving to their educational activities.
- If a faculty member receives a minimum of 1 eRVU he or she will receive a base payment. After the base payment, faculty are reimbursed \$350 per eRVU.

Definitions of Relevance and Time

Metric References:

Relevance

Level 3:	This project is perceived as HIGH importance due to its relationship with either regulatory compliance and/or value for the educational mission of the Department.
Level 2:	This project is considered important with potential enhancement to the overall educational activity; the absence of this activity won't alter the overall mission of the Department.
Level 1:	Activity of potential value but low level of impact

Time

Level 3:	Faculty involved spend over 40 hours per year on this activity
Level 2:	Faculty involved spend between 20 and 40 hours per year on this activity
Level 1:	Faculty involved in this activity spend less than 20 hours per year

eRVU Matrix

		Time		
		1	2	3
Relevance	1	<input type="checkbox"/> Baseline (meet one or more of the criteria below): <ul style="list-style-type: none"> • Mentor for residents, fellows, students, research or outside the department • Present ≤5 lectures in Neurology department; • Grand Rounds attendance • Member of junior faculty mid-term review committee • Presentations to outside departments, groups or conferences • Service on a thesis or comprehensive exam committee • Faculty or alternate faculty senator • Service on clinics committee • Departmental promotion committee 		
	2	<input type="checkbox"/> Liaison to SIGN; <input type="checkbox"/> Didactic Block Directors ≤2 weeks	<input type="checkbox"/> CME director <input type="checkbox"/> Didactic Block Directors >2 weeks <input type="checkbox"/> CME Committee	<input type="checkbox"/> PBL for Clerkship
	3	<input type="checkbox"/> Grand Rounds Committee <input type="checkbox"/> Present ≥6 lectures yearly to Neurology residents and fellows at AMC; <input type="checkbox"/> Fellowship Program Evaluation Committee; <input type="checkbox"/> Residency Program Evaluation Committee; <input type="checkbox"/> Residency Clinical Competency Committee; <input type="checkbox"/> Complete ≤10 OUTPATIENT or Medical Student evaluations on time yearly for UCH rotations; <input type="checkbox"/> Complete ≤5 INPATIENT evaluations on time yearly for UCH rotations	<input type="checkbox"/> Residency Clinical Competency Committee; <input type="checkbox"/> Non-accredited Program Directors; <input type="checkbox"/> Clerkship Grading Committee; <input type="checkbox"/> Complete 11-20 OUTPATIENT or Medical Student evaluations on time yearly for UCH rotations; <input type="checkbox"/> Complete 6-10 INPATIENT evaluations on time yearly for UCH rotations; <input type="checkbox"/> Fellowship Clinical Competency Committee	<input type="checkbox"/> UCNS Program Directors; <input type="checkbox"/> Residency Clinical Competency Committee; <input type="checkbox"/> Resident Selection Committee; <input type="checkbox"/> Leaders in Education, Administration and Research Directors; <input type="checkbox"/> Supervisory role in resident continuity clinics at UCH; <input type="checkbox"/> Complete ≥21 OUTPATIENT or Medical <input type="checkbox"/> Student evaluations on time yearly for <input type="checkbox"/> UCH rotations; <input type="checkbox"/> Complete ≥11 INPATIENT evaluations on time yearly for UCH rotations

Outcomes

Academic Year	Evaluation completion Rate
2012-2013	35.5%
2013-2014	44.5%
2014-2015	53%

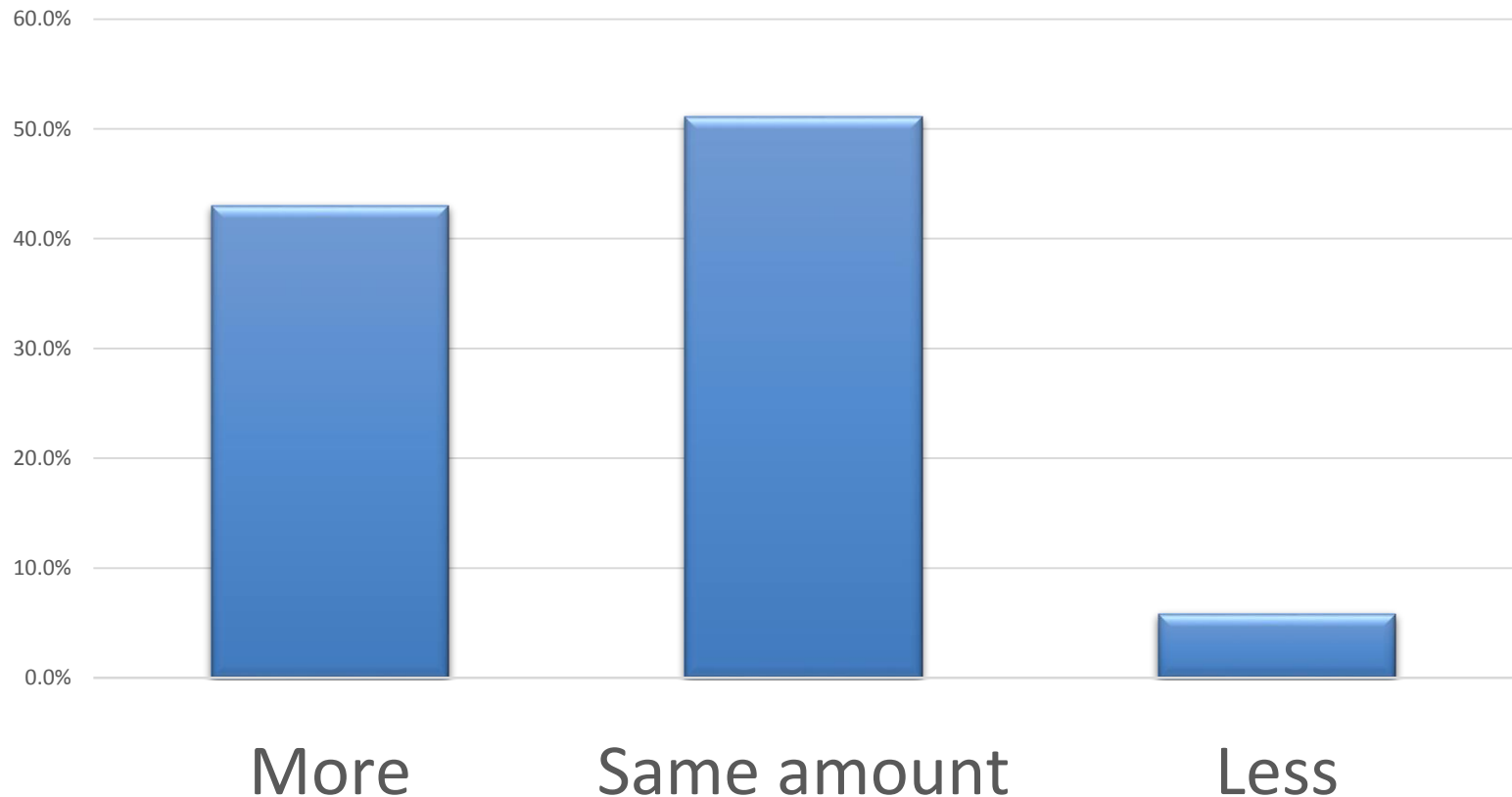
	% of Faculty	eRVU average
Assistant Professors	53%	7.5
Associate Professors	16%	7.7
Professors	32%	10.1
Male	61%	8
Female	39%	8.8
Faculty Appointment > 3 yrs	26%	8.7
Faculty Appointment 3-5 yrs	24%	10.2
Faculty Appointment 6-10 yrs	13%	2.8
Faculty Appointment 11-15 yrs	16%	10.5
Faculty Appointment < 15 yrs	29%	8.4
eRVU Score (1 - 10)	76%	
eRVU Score (11 - 20)	11%	
eRVU Score (21 - 30)	11%	
eRVU Score (31 - 40)	3%	
Time 1 / Relevance 1	100%	
Time 1 / Relevance 2	23%	
Time 1 / Relevance 3	45%	
Time 2 / Relevance 1	0%	
Time 2 / Relevance 2	16%	
Time 2 / Relevance 3	39%	
Time 3 / Relevance 1	0%	
Time 3 / Relevance 1	8%	
Time 3 / Relevance 1	58%	

LEAP Faculty Engagement in Education Report 2016

- 20.7% response rate
- Good mix of departments
 - Slightly low on Surgical dept responses
 - Slightly high on Basic Science dept, OBGYN, **Neurology** and Family Medicine responses
- Good representation from affiliate hospitals and diversity of academic rank

Do faculty want to teach more?

Ideally I would prefer to teach ...



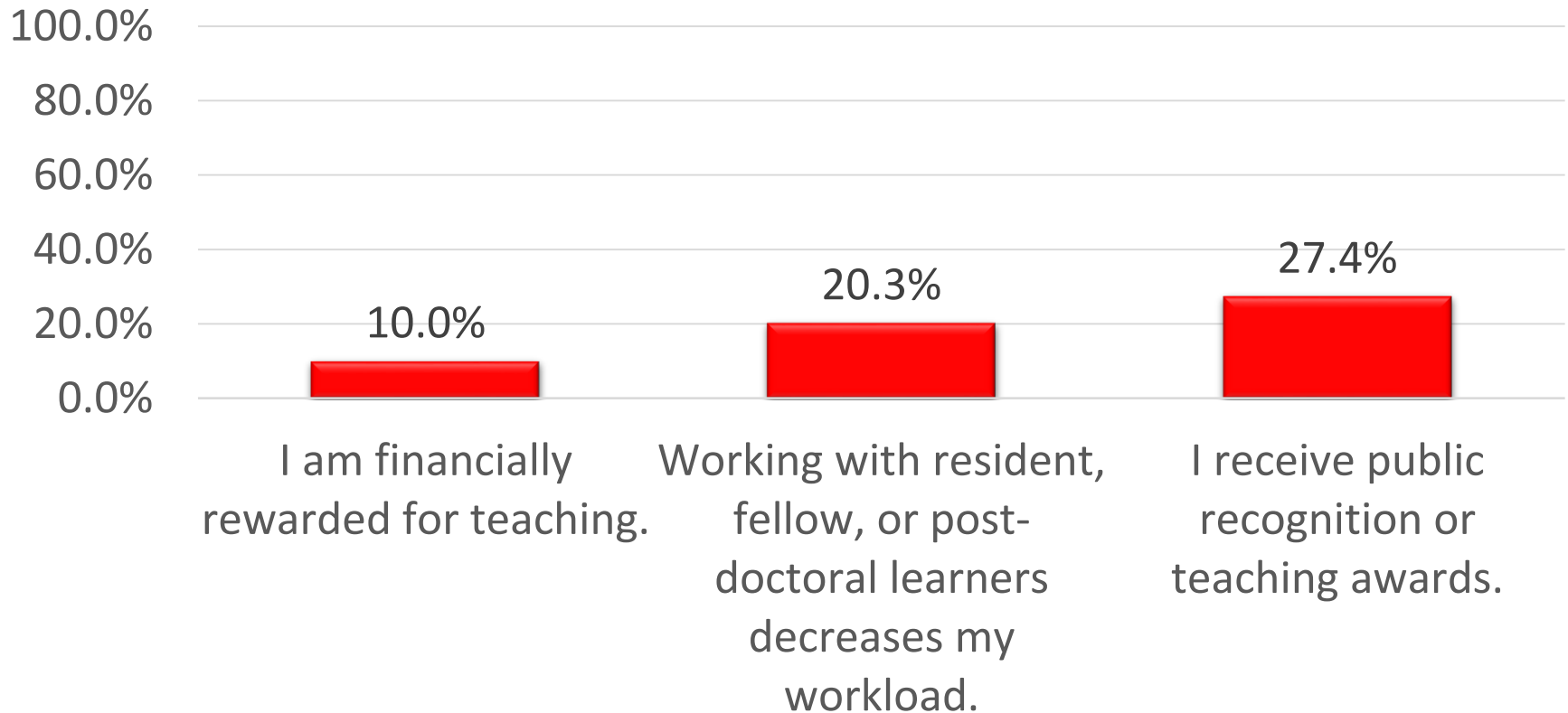
What motivates them to teach?

Most important motivating factors for teaching

Factor	% Strongly agree/Agree
It is important that we train future clinicians and scientists.	99.7%
It improves my knowledge and skills.	98.3%
I derive personal satisfaction from the teacher-learner relationship.	97.0%
It gives satisfaction or meaning to my career.	95.2%
It is an expectation as part of my job or position.	87.8%

What doesn't motivate them to teach?

Least important motivating factors for teaching (Strongly agree/Agree)



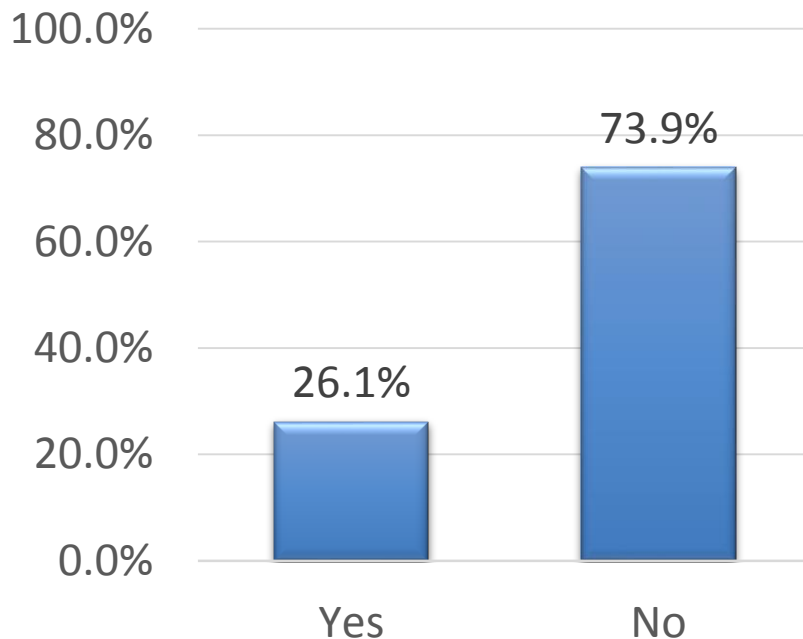
What keeps faculty from teaching?

Most important barriers keeping faculty from teaching

Factor	% Strongly agree/Agree
There are too many CLINICAL responsibilities that take priority.	86.4%
There are too many ADMINISTRATIVE responsibilities that take priority	73.9%
There isn't enough administrative support to help with teaching encounters.	57.2%
My salary would be reduced due to decreased productivity or incentives if I taught more.	55.1%
Spending time at home with friends and family is a higher priority.	52.7%
There are too many RESEARCH responsibilities that take priority.	50.5%

Is this a threat to retention of faculty?

Are you strongly considering leaving the University of Colorado in next 5 years?



Reasons that faculty are considering leaving	% reporting this factor
Lack of support for teaching	41.4%
Inadequate salary support	39.7%
Lack of support for research	32.8%
Dissatisfied in University of Colorado School of Medicine as a place to work	29.3%
Career not progressing satisfactorily	24.7%
Lack of support for clinical care	22.4%
Will retire from the University	19.5%
Personal reasons (e.g., spouse relocation)	14.4%
Career change	10.3%

Medical Education is endangered

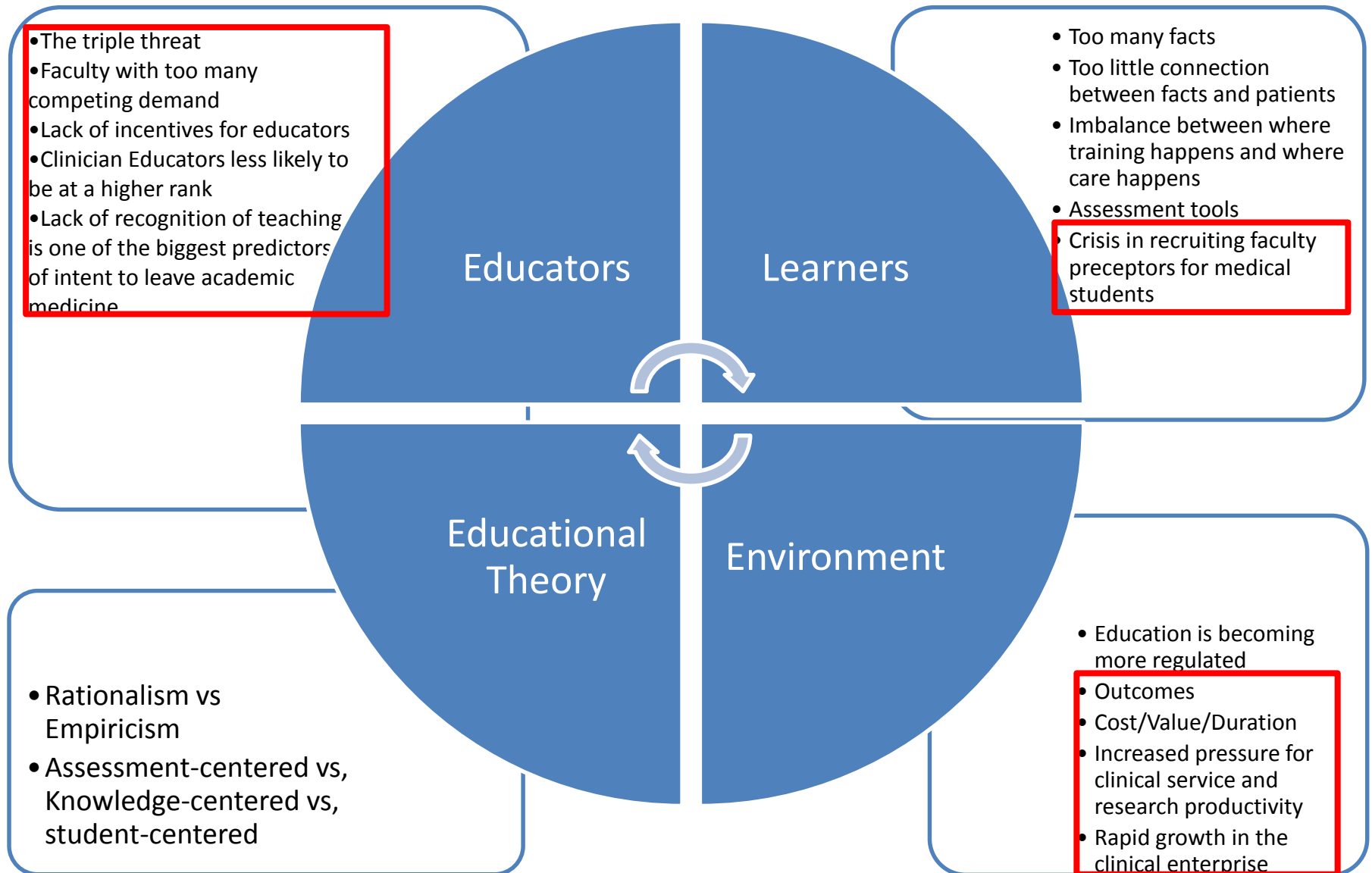
Changes to the academic environment

- Rapid growth in the clinical enterprise
- Increased pressure for clinical service and research productivity
- Sources of funding for research
- Education is becoming more regulated
- Educational activities difficult to quantify



Impact on students, faculty, school

- Crisis in recruiting faculty preceptors for medical students
- Negative impact on faculty
 - Clinician Educators less likely to be at a higher rank
 - Lack of recognition of teaching was one of the biggest predictors of intent to leave academic medicine



eRVU

DO's and DON'Ts

DO's

- Include faculty, learners, administrators, etc in the design and implementation
- Develop a Pilot
- Re-evaluate components over time
- Start simple
- Always choose incentives over punishments
- List education activities
- Consider time to conduct, time to prepare, level of experience and skill required to perform the activity, determine value of the activity (relevance)
- Count “performance”: was the activity performed alone or in a group? What was the “quality” of the activity?

eRVU

DO's and DON'Ts

DON'Ts

- One model fits all
- Complex systems
- Too Permissive System: over inflation
- Too Restrictive System: lack of engagement
- Ignore the administrative burden of the system
- Ignore the proper balance with other components of the mission (research, clinical, etc)

No Magic Bullet

- Difficulties encountered in all
 - Measuring educational activities
 - Often overly complex
 - Difficulty attaining buy-in
- Solution needs to be individualized to local needs of institution, department
- Input from all local stake-holders is crucial