

Helen Clemens

Mathematics

Helen Clemens, Ph.D. in Mathematics from New York University, joined a prestigious research university as an assistant professor of mathematics, specializing in differential equations related to self-organizational phenomena and chaos. She was hired the same year and in the same department as her husband Joseph Smith, an up-and-coming star in set theory and fractals who was hired after working three years as an assistant professor at Yale University.

Clemens quickly established a reputation as an excellent teacher of mathematics majors. Her upper-division course in her specialty field became one of the department's most popular courses for majors. She also became known as an accessible graduate advisor who took great care in mentoring her students' professional development.

Clemens was invited to give many international presentations in her area and to become a member of a significant number of conference program committees. She was also a frequent speaker at meetings of physicists interested in application of her mathematical tools to physical systems. Some of her university colleagues in other research areas suggested that her frequent invitations to participate in workshops and panel discussions reflected diversity needs rather than acknowledging her intellectual acumen. Others claimed she rode on the coattails of her husband, her sometimes collaborator. While Clemens' international experiences were prestigious, they often required her to travel to Europe for meetings. She was consequently less accessible to colleagues than most peers. Most of her time on campus was spent teaching courses, advising students, or serving on institute-level committees.

By the time of her third year critical review, she published only two articles, albeit in important journals. Her husband collaborated on one of these; in fact, he was first author. Their achievements were the subject of an article in *The Chronicle of Higher Education* about successful couples in the sciences. Clemens and Smith were also profiled in national newspaper articles focusing on emerging connections between biology and mathematics. Smith had established strong interactions with the biology department in applying concepts of fractals to complex hierarchical cell structures. The committee considering her third year critical review recommended warning her to accelerate publication. Her chair advises Clemens to "concentrate more on publishing and less on publicizing."

In her next two years, Clemens worked hard to publish in significant refereed journals, producing three papers (one in tandem with her husband) and three articles in conference proceedings. In addition, she was listed as co-PI on one of his grants.

In coming up for promotion and tenure, Clemens was considered an excellent teacher by undergraduates and graduate students and an excellent mentor of women students. Her publication record was a bit below average, but her citation rate was average, and she was well known in Europe, for example. Letters from reviewers, two of them prominent European mathematicians, characterized her individual work as "very good," "substantial," and "first-rate." Articles written collaboratively with her husband were cited as "highly influential" and "amazing." There were no negative reviews.

Questions arise in the unit-level promotion and tenure committee regarding whether Clemens' record of individual productivity meets the minimum standard and whether her productivity and the impact of her work depend on her husband. One member wonders if Smith (already tenured and promoted) will leave if Clemens does not get tenure. As a member of the committee, how would you respond to these concerns?