

The Impact of University Provided Nurse Electronic Medical Record (EMR) Training on Hospital Provider Systems: A Computer Simulation Approach

Kathleen Abrahamson, PhD, RN¹; James G. Anderson, PhD²; Elizabeth Borycki, PhD, RN³; Andre Kushniruk, PhD³; Shannon Malovec⁴; Angela Espejo³; Marilyn Anderson, B.A.⁵

1. Purdue University School of Nursing, West Lafayette, IN, 2. Department of Sociology, Purdue University, West Lafayette, IN 3. School of Health Information Science, University of Victoria, British Columbia 4. Provincial Health Services Authority, British Columbia 5. Anderson Consulting, West Lafayette, IN

Statement of the Problem

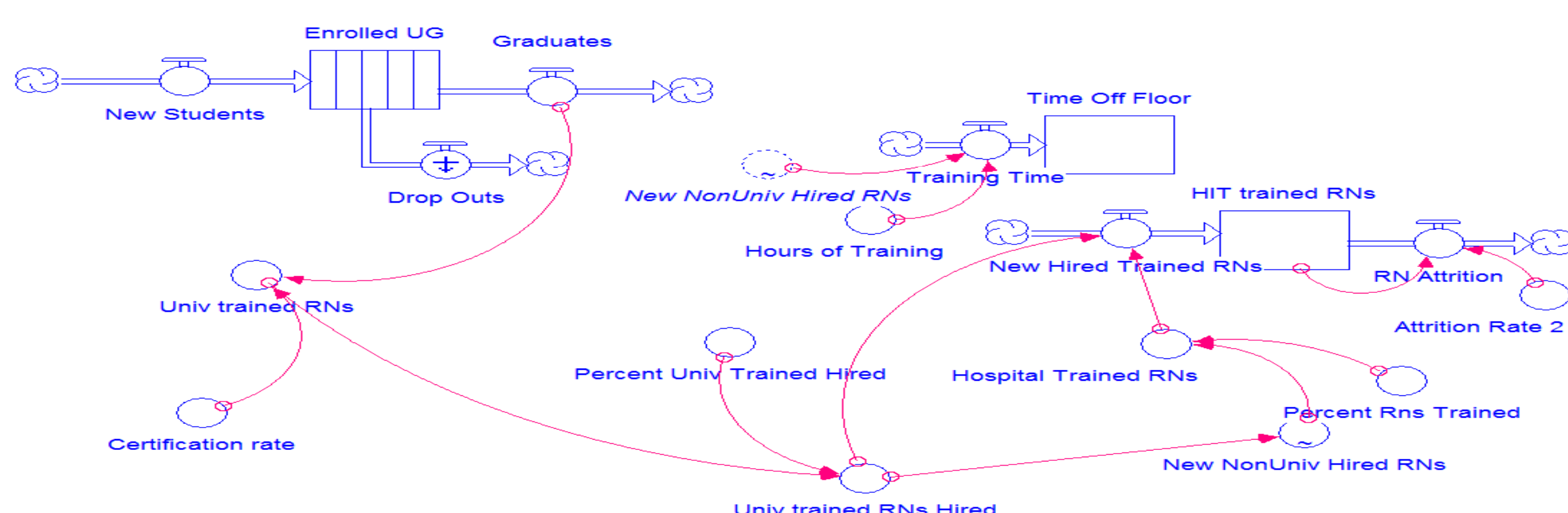
- Hospitals lose valuable productivity when nurses are off of the unit for EMR training.
- Universities lose valuable clinical training hours when students are required to learn various EMR systems at clinical sites during clinical rotations.
- Centralizing EMR training within the university classroom curriculum could provide the hospital with trained new hires while preserving student clinical time for bedside care.

Research Question

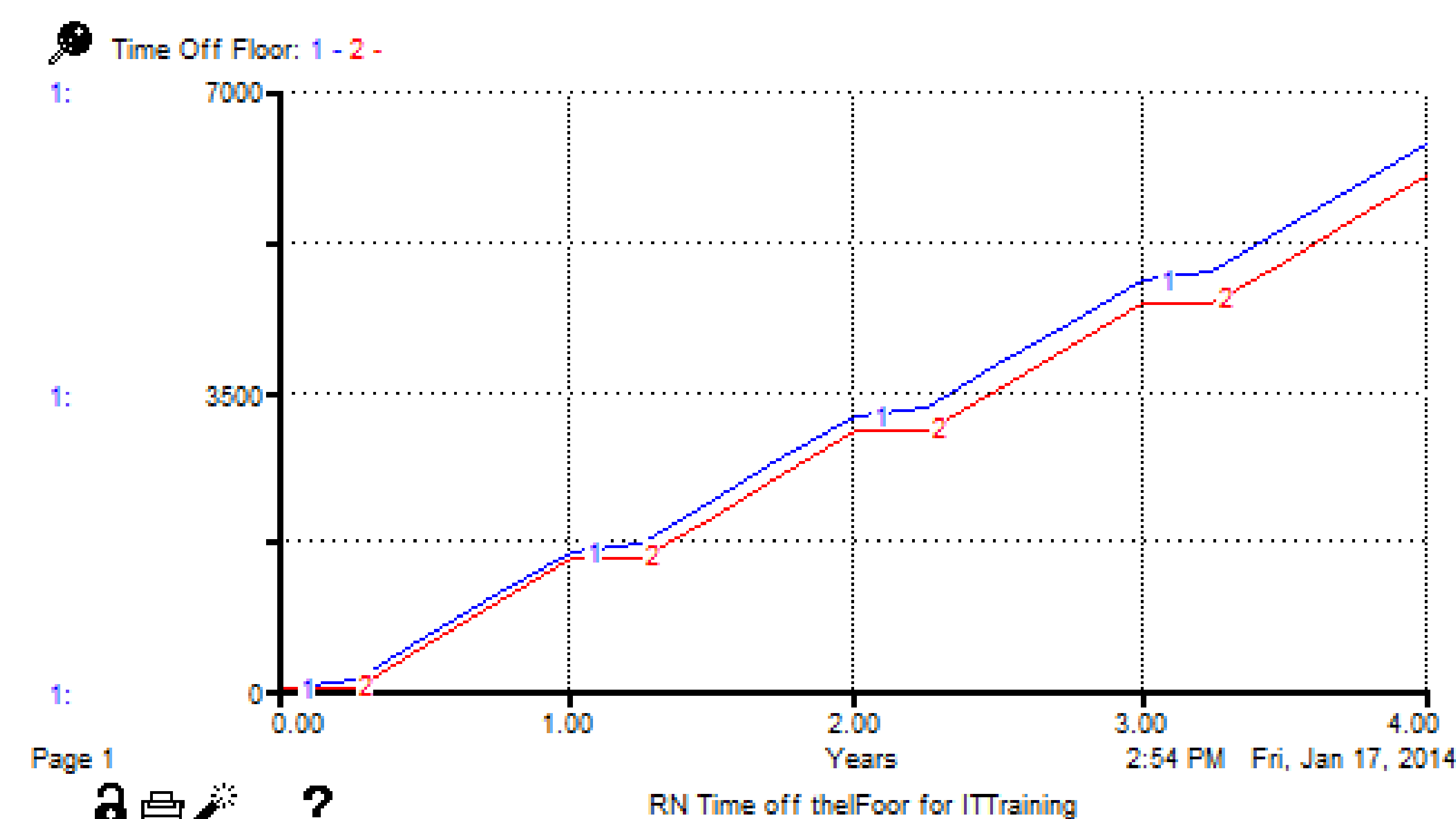
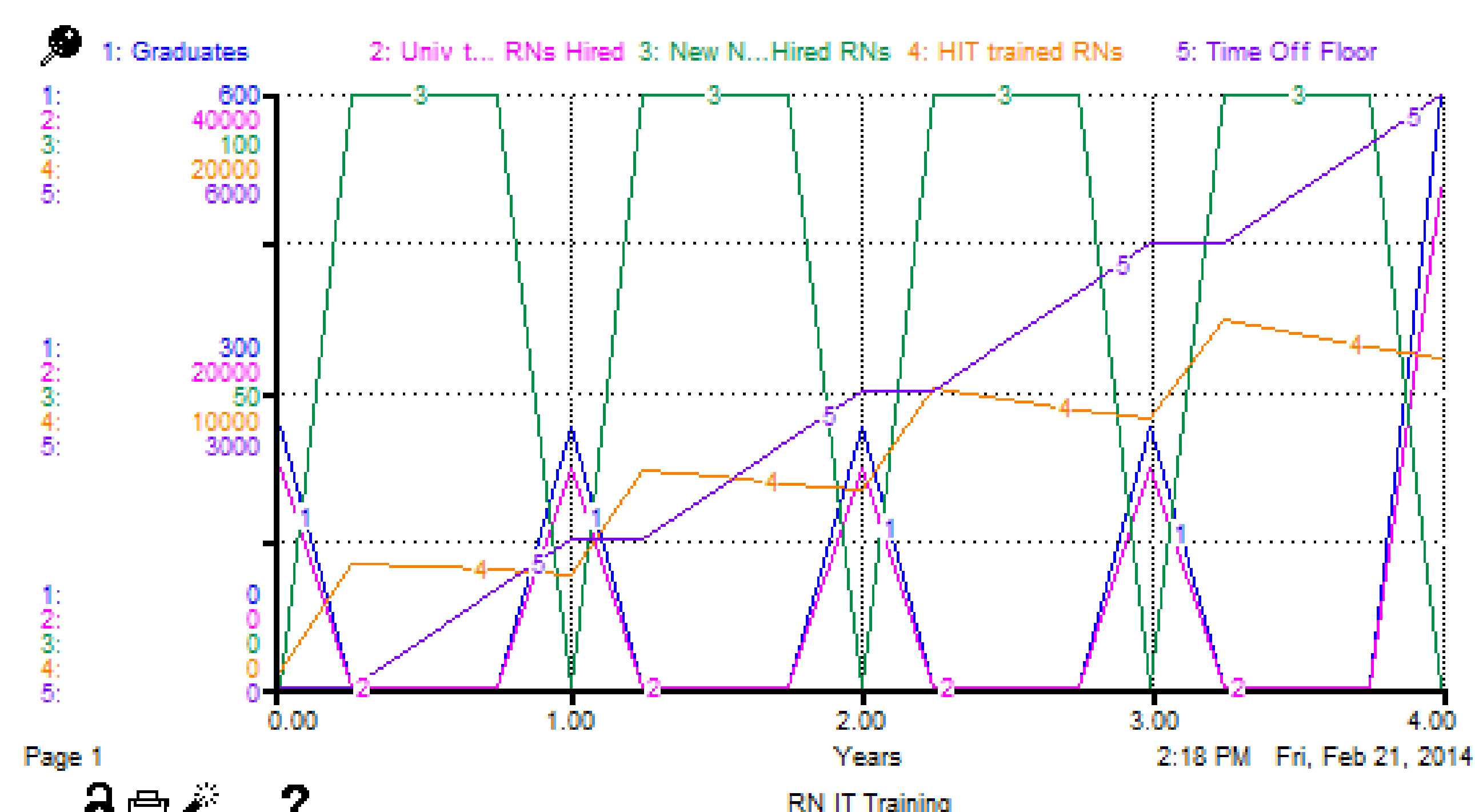
What is the cumulative influence of integrating EMR training in nursing classroom curriculum on hospital nurse time away from caregiving and number of EMR trained nurses?

Analytic Method

The computer simulation model was specified using the STELLA program. The model simulated once a year hiring of nurses over a 4 year period for a total of 500 new hires. The model predicts the number of new hires that need EMR training, the number of new hires that arrive trained by the University, and the time away from caregiving to train new hires in terms of change in University curriculum to include EMR training.



Results



Conclusions

- Integrating EMR training in nursing classroom curriculum potentially results in more available time for nurse bedside care and reduced cost in health organization training of new nurses. Further investigation is needed to assess the cost impact of curricular integration.
- Efficiency of clinical training can be potentially improved by centralizing EMR training within the nursing curriculum.