

**AbstractID: 10231 Title: Future trends in the supply and demand for radiation oncology physicists**

**Purpose:** Significant controversy surrounds the 2012 / 2014 decision announced by the Trustees of the American Board of Radiology in October of 2007. According to the ABR, only medical physicists that are graduates of a CAMPEP-accredited academic or residency program will be admitted for examination in the years 2012 and 2013. Only graduates of a CAMPEP-accredited residency program will be admitted for examination beginning in the year 2014.

**Method and Materials:** An essential question facing the medical physics community is an estimation of supply and demand for medical physicists through the year 2020. To that end, a Supply/Demand model was created on STELLA software. Inputs into the model include the a) projected new cancer incidence 1990 – 2020, AAPM member ages and retirement projections 1990 – 2020, Number of ABR physics diplomates 1990 – 2008, Number of patients per Qualified Medical Physicist from Abt Reports I (1995), II (2002) and III (2008), non-CAMPEP physicists trained 1990 – 2008 and projected through 2014, CAMPEP physicists trained 1993 – 2008, and working Qualified Medical Physicists in radiation oncology in the United States (1990 – 2007).

**Results:** The model indicates that the number of qualified medical physicists working in radiation oncology required to meet demand in 2020 will be 200 per year. Because there is some elasticity in the workforce, some of the work effort might be assumed by practicing medical physicists. However the minimum number of new radiation oncology physicists required for the health of the profession is estimated to be 125 per year.

**Conclusion:** The AAPM should plan to support a more rigorous supply/demand model and to build residency programs to support these numbers for the future of the profession.