

# Imaging-technology Deployment in the Post-DRA Era

**Introduction:** The reductions in reimbursement for medical imaging that began with the DRA have had an impact on providers' ability to invest in technology (both upgrades and replacements). As might be expected, reimbursement changes and uncertainty about the impact of health-care reform have affected the acquisition and maintenance costs of imaging technology as well.

In this issue of Imaging Market File, we present the equipment data collected for 2011 by the AHRA, in 2012, using the AHRAdata Lynx tool. These data are representative of approximately 200 MRI and CT systems in operation, in both hospital and outpatient settings, across the country.

**Technology adequacy:** The acquisition cost for MRI systems of all field strengths now ranges from \$100,000 to \$2 million, and it is \$150,000 to \$2 million for the full range of CT systems. While the

broad range of acquisition costs could be expected to drive increased purchasing, 26% of respondents say that their current MRI services don't meet the needs of referring physicians (Figure 1).

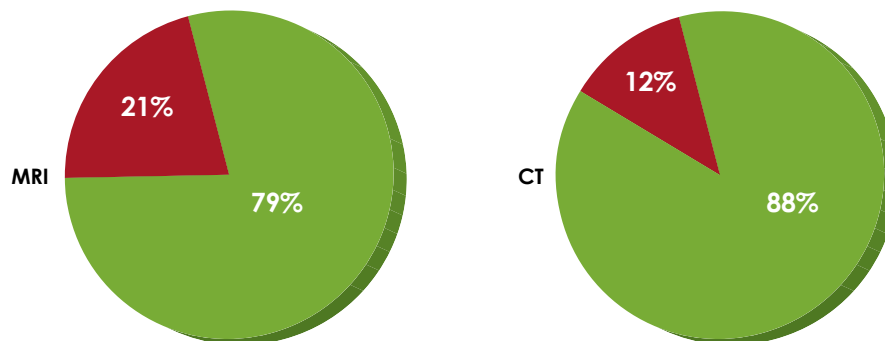
Of the deficiencies responsible, number one was capabilities, number two was speed of the exam, and number three was the image quality (Figure 2). This indicates market demand for upgraded technology, with the potential for increased equipment sales over the next couple of years.

**Breakdown and age of equipment:** While larger facilities were more likely to own 3T MRI systems, 1.5T MRI systems still outnumber 3T units by a ratio of seven to one (Figure 3). In CT-system deployment in this sample, 16-slice systems continue to be the most dominant technology, but are only slightly more common than 64-slice units. The most prevalent MRI system in this census is the 1.5T unit (Figure 3), while the 16-slice system is the most prevalent CT system (Figure 4).

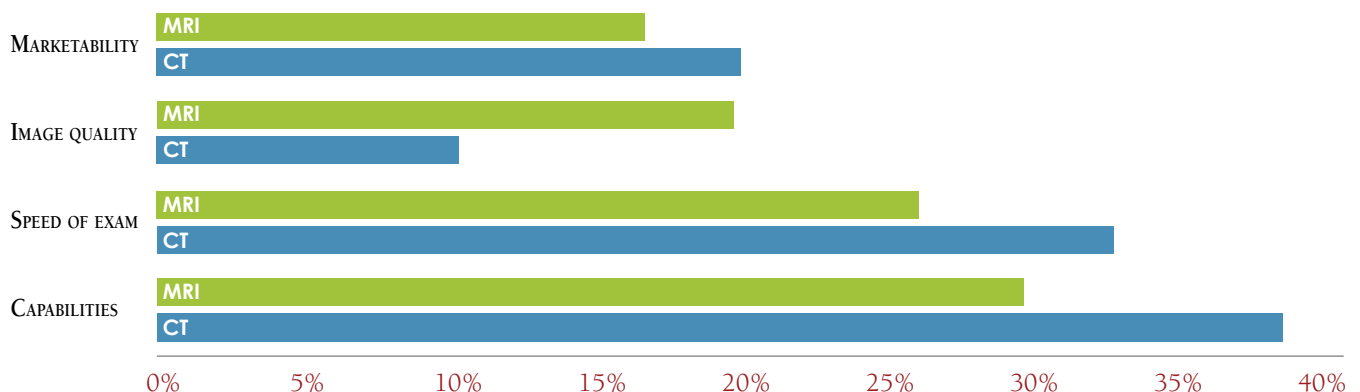
The average age of MRI systems in this dataset is six years (Figure 5), while the most common system, the 1.5T system, is an average of five years old. For CT, the average system age is five years (Figure 6), while the most prevalent type of CT system, the 16-slice system, is an average of six years old.

It's not surprising that the CT systems that produce datasets of fewer than 16 slices are among the oldest in this census. In fact, the least advanced technologies in the sample, four-slice CT systems, are an average of 10 years old.

The MRI systems with the lowest field strength, those using the 0.3T technology, also are the oldest in the MRI inventory, at 13 years old. The 0.7T systems, however, are younger (at 5.6 years old) than is the 1T inventory (at 7.8 years old). The 1.2T technology is the youngest technology in the inventory, at 2.3 years old, suggesting that this field strength met a need (and possibly, a price point) in the market.



**Figure 1. More than 20% of owners of 200 MRI systems report that the technology does not meet physicians' needs (left). More than 10% of owners of CT systems report that their technology falls short of meeting physicians' needs (right).**



**Figure 2. Where MRI and CT systems do not meet physicians' needs, the top two deficiencies are capabilities and speed of exams.**

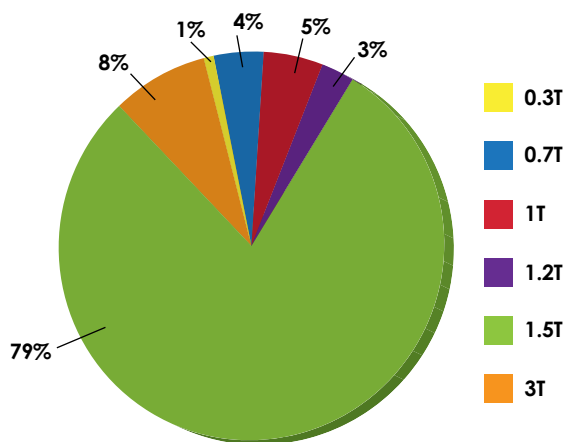


Figure 3. Deployed MRI systems, by field strength.

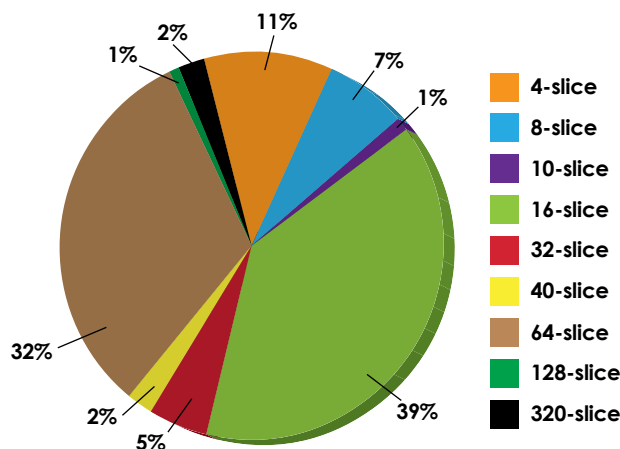


Figure 4. Deployed CT systems, by slice count.

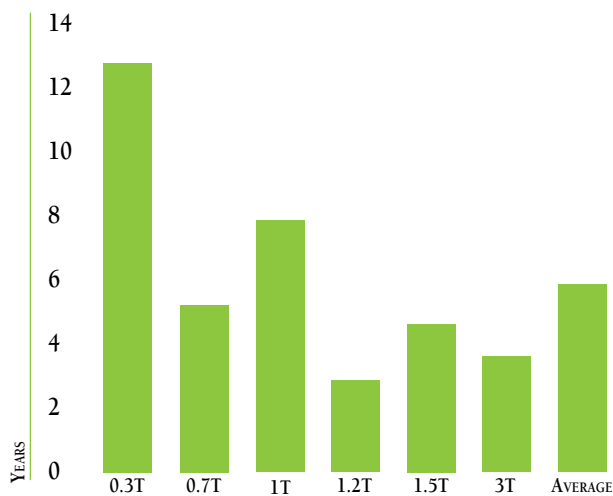


Figure 5. The average age of MRI systems is slightly less than six years, but this varies by field strength.

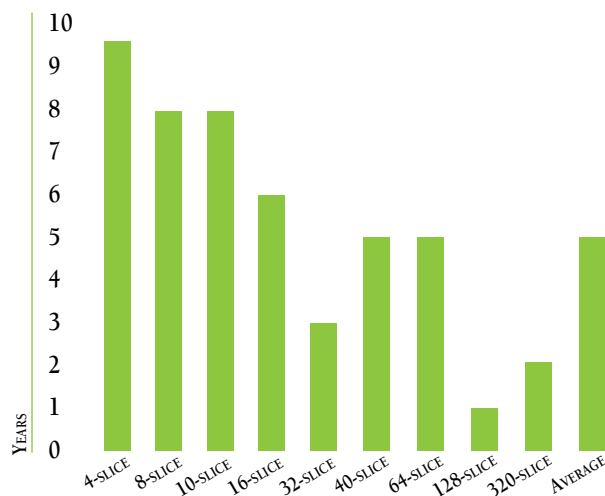


Figure 6. The average age of CT systems is slightly less than five years, but this varies by slice count.

**Coming in the December Issue:** Further Information on Equipment Utilization and Service Costs.

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**About AHRAdatalynx:** AHRA, in collaboration with Regents Health and National Imaging Network, developed AHRAdatalynx, a benchmarking tool designed specifically for medical-imaging professionals. AHRAdatalynx is populated with data from a set of comprehensive surveys that include information on productivity and utilization, compensation and benefits, equipment and usage, financials, radiologists and turnaround times, and referring physicians. Launched in the summer of 2012, the AHRAdatalynx database continues to accrue daily, as more member-providers participate.

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