3rd Quarter 2016 Outlook
July–September

Prepared For:
AHRA
July 2016
Why was MICI created?

The MarkeTech Group and AHRA collaborated on the creation of MICI based on the belief that measuring the confidence of US medical imaging administrators on a regular basis would provide a valuable index for those having an interest in this industry.

The MICI panel consists of a select group of imagePRO™ panel members from around the U.S. representing different hospital sizes and geographic locations to capture a true “industry outlook”: how imaging administrators see the future of medical imaging in regard to revenues, costs, purchasing, and growth.

This exciting initiative captures the “mood” of imaging administrators on a quarterly basis regarding the state of medical imaging in the U.S. It also provides a unique statistical index that is likely to attract a lot of attention from those following this industry.

What is imagePRO™ and why is it important?

imagePRO™ was created by The MarkeTech Group to provide a professional community for imaging administrators to participate in studies aimed at advancing the development of medical imaging technology.

The imagePRO™ panel is a true community of industry professionals and is the leading opt-in panel of this industry. Members are subjected to strict enrollment requirements to represent the voice of their peers and to be part of a group of professionals whose knowledge and input is important.
154 imaging directors/managers of hospitals completed the 3-minute Web survey regarding their perception of medical imaging trends for the third quarter of 2016.

**Scores**

Scores measure the level of confidence, and range between 0 to 200. The score interpretation follows:

- Below 50 is extremely low confidence
- 50 to 69 is very low confidence
- 70 to 89 is low confidence
- 90 to 110 reflect an ambivalent score (Neutral)
- 111 to 130 is high confidence
- 131 to 150 is very high confidence
- Anything above 150 is extremely high confidence

**Hospital bed size:**

- **45%** Under 100
- **36%** 100-299
- **19%** 300 or more
Index Methodology

Results
are reflective of national trends because of the manner in which participants were invited to participate.

- Participants were recruited by region and number of beds to reflect known AHA incidence.

- Once the final counts were confirmed there was some statistical adjustment—weighting—to ensure the index reflects the U.S. hospital imaging market. This type of adjustment is common when estimating overall market share, trends, and attitudes.

Recruitment
accounts for about 90% of correct hospitals and regions to reflect the U.S. hospital market.

- While relatively minor in magnitude, the weighting accounts for the final 10% to refine the estimates and ensure they represent the U.S. hospital market.

- This refinement is necessary to create an index that truly represents how radiology departments view the economic outlook for the current quarter and will ensure that subsequent MICI results are valid.
Index Methodology

Regions

- Mountain: 7%
- West North Central: 15%
- East North Central: 20%
- Mid-Atlantic: 14%
- South Atlantic: 15%
- West South Central: 13%
- East South Central: 8%
- Pacific: 9%
Staff costs to remain constant, growth in volume and profit

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score Mean</th>
<th>Interpretation</th>
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<tbody>
<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>111</td>
<td>High confidence</td>
</tr>
<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td>73</td>
<td>Low confidence</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>127</td>
<td>High confidence</td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>100</td>
<td>Neutral</td>
</tr>
<tr>
<td>Will maintain/grow as a profit center</td>
<td>118</td>
<td>High confidence</td>
</tr>
</tbody>
</table>

Composite score across all areas: 105 Neutral

There is concern about receiving adequate reimbursement from Medicare.
Hospitals with **300 or more beds are more confident** that **growing in diagnostic and interventional radiology** will occur than hospitals with fewer than 100 beds. Hospitals with 100 or more beds **are more confident** in **growing as a profit center** than hospitals with fewer than 100 beds.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Under 100 beds</th>
<th>100 to 299 beds</th>
<th>300 or more beds</th>
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<tbody>
<tr>
<td>Will grow monthly in diagnostic and interventional radiology</td>
<td>97</td>
<td>116</td>
<td><strong>131</strong></td>
</tr>
<tr>
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<td>69</td>
<td>72</td>
<td>83</td>
</tr>
<tr>
<td>Internal operating and staff costs will remain constant</td>
<td>126</td>
<td>130</td>
<td>123</td>
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<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>97</td>
<td>103</td>
<td>101</td>
</tr>
<tr>
<td><strong>Will maintain/grow as a profit center</strong></td>
<td><strong>105</strong></td>
<td><strong>127</strong></td>
<td><strong>133</strong></td>
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<tr>
<td>Composite score across all areas</td>
<td>99</td>
<td>109</td>
<td>113</td>
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</table>
Regional differences: While none of the differences are statistically significant

West South Central region has **very high confidence** in the growth of diagnostic and interventional radiology. The Mid-Atlantic, South Atlantic, East South Central, and Pacific regions have **very low confidence**; while all the West North/South Central regions have **low confidence** about receiving adequate reimbursement from Medicare.

East North Central, West North Central, and Pacific regions have **very high confidence** that internal operating and staff costs will remain constant. East South Central region has **low confidence** in access to capital for equipment.

West South Central and Mountain regions have **very high confidence** in growing as a profit center.

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<td>117 95 119 100 83 <strong>135</strong> 115 110</td>
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<tr>
<td>Receive adequate reimbursement from Medicare for diagnostic and interventional imaging</td>
<td><strong>53</strong> 63 93 <strong>82</strong> 65 <strong>71</strong> 95 50</td>
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<td>Internal operating and staff costs will remain constant</td>
<td>115 108 <strong>143</strong> 143 128 121 106 <strong>138</strong></td>
</tr>
<tr>
<td>Will have access to capital for imaging equipment and IT needs</td>
<td>102 99 109 97 <strong>77</strong> 98 104 101</td>
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<td>Will maintain/grow as a profit center</td>
<td>115 119 130 119 70 <strong>131</strong> <strong>140</strong> 107</td>
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**Composite score across all areas** | 101 97 118 107 84 110 111 101 |
There is **high confidence** in the growing of diagnostic and interventional radiology, staff costs will remaining constant, and growing as a profit center.

There is **concern** about receiving adequate reimbursement from Medicare.

Hospitals with 300 or more beds are **more confident** in growth of diagnostic and interventional radiology than hospitals under 100 beds. Hospitals with 100 or more beds are **more confident** in growing as a profit center than hospitals with fewer than 100 beds.

West South Central region has **very high confidence** in growing diagnostic and interventional radiology. East North Central, West North Central, and Pacific regions have **very high confidence** that internal operating and staff costs will remain constant. West South Central and Mountain region have **very high confidence** in growing as a profit center.

The Mid-Atlantic, South Atlantic, East South Central, and Pacific regions have **very low confidence**; while the West North/South Central regions have **low confidence** about receiving adequate reimbursement from Medicare. The East South Central region has **low confidence** in access to capital for equipment.
Results are now shown for Q4 2014 through Q3 2016.

- Comparisons are presented to show any trending of the data over a one year period.

Analyses are based on between group analysis of variance (ANOVA) where participant’s scores are compared over time to determine if changes occur.
## Year-to-year analysis review Q2-2016 through Q3-2016

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<td><strong>Q2 2016</strong></td>
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Year-to-year analysis review
Q4-2014 through Q3-2016

Access to capital for equipment have higher confidence in Q3 2016 compared to Q4 2014. Growth as a profit center have higher confidence in Q2 2016 compared to Q3 2016.
Year-to-year analysis review Q4-2015 through Q3-2016

Average MICI Scores

- Grow monthly
- Receive adequate reimbursement
- Costs remain constant
- Access to capital
- Maintain/grow as a profit center

Under 100 beds
100 to 299 beds
300 or more beds

Margin of error: ±8 percentage points

For details on MICI scores by bed size – please click on underlined links, or go to Appendix B.
In aggregate, there is lower confidence in Q3 2016 compared to Q2 2016.

Access to capital for equipment have higher confidence in Q3 2016 compared to Q4 2014. Operating / staff cost and growth as a profit center have lower confidence in Q3 2016 compared to Q1 2016. Hospitals with less than 100 beds have lower confidence across years in the growth of diagnostic and interventional radiology.

Lower confidence in Q3 2016 compared to Q2 2016.

No changes in MICI between Q3 2016 and Q4 2014.
APPENDIX A - Questionnaire

Grow monthly in diagnostic and interventional imaging
Over the next three months, I am very optimistic that our department:

S1Q1. will grow monthly study volumes in Diagnostic imaging modalities (X-ray, Ultrasound, MRI, CT and NM).

S1Q2. will grow monthly study volumes in Interventional imaging modalities (biopsy, angio cath lab, etc.).

Receive adequate reimbursement from Medicare for diagnostic and interventional imaging
Over the next three months, I am very optimistic that our department:

S1Q3. will receive adequate reimbursement from Medicare for Diagnostic imaging studies.

S1Q4. will receive adequate reimbursement from Medicare for Interventional imaging procedures.

Internal operating and staff costs will remain constant
Over the next three months, I am very optimistic that the imaging department:

S2Q1. internal operating expenses (not including staff costs) will remain constant.

S2Q2. internal staff costs will remain constant.
APPENDIX A - Questionnaire

**Will have access to capital for imaging equipment and IT needs**
Over the next three months, I am very optimistic that our department:

**S3Q1.** will have access to capital/credit to fund investments in new imaging equipment and the costs associated with Imaging capital projects (e.g. siting & construction costs).

**S3Q2.** will have access to capital/credit to fund investments in areas outside of imaging equipment, such as PACS, RIS, or other imaging-related IT needs.

**S3Q3.** will have access to capital/credit to fund investment in imaging facility expansion, if desired.

**Will grow as a profit center**
Over the next three months, I am very optimistic that our department:

**S4Q1.** will continue to maintain/grow Diagnostic imaging services as a profit center.

**S4Q2.** will continue to maintain/grow Interventional imaging services as a profit center.
Appendix: Q4-2014 through Q3-2016 results

APPENDIX B

Graphs are presented by number of beds to show MICI for all quarters.

Interpretation is by number of beds—any changes across quarters are identified as being significant.

If no changes are identified then differences that might appear are due to random fluctuation in responses over time and should not be considered real.
Appendix:
Q4-2014 through Q3-2016 results

**Quarter**

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**Hospital bed size: Under 100 beds**

- Will grow monthly in diagnostic and interventional radiology
- Receive adequate reimbursement from Medicare for diagnostic and interventional imaging
- Internal operating and staff costs will remain constant
- Will have access to capital for imaging equipment and IT needs
- Will maintain/grow as a profit center
- Composite score across all areas

**Under 100 beds:** Growth as a profit center and Operating / staff costs have higher confidence in Q1 2016 compared to Q3 2016. Access to capital for equipment have higher confidence in Q3 2016 compared to Q4 2014.
Appendix: Q4-2014 through Q3-2016 results

100 to 299 beds: Growth as a profit center have higher confidence in Q2 2016 compared to Q3 2016. No changes in MICI between Q3 2016 compared to Q4 2014.
Appendix: Q4-2014 through Q3-2016 results

Hospital bed size: 300 or more beds

- Will grow monthly in diagnostic and interventional radiology
- Receive adequate reimbursement from Medicare for diagnostic and interventional imaging
- Internal operating and staff costs will remain constant
- Will have access to capital for imaging equipment and IT needs
- Will maintain/grow as a profit center
- Composite score across all areas

300 or more beds: No changes in MICI between Q2 2016 and Q1 2016. No changes in MICI between Q3 2016 compared to Q4 2014.
Appendix: Q4-2014 through Q3-2016 results

Will grow monthly in diagnostic and interventional radiology: Hospital bed size

Quarter
Under 100 beds | 100 to 299 beds | 300 or more beds

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Back to Hospital bed size summary
Appendix: Q4-2014 through Q3-2016 results

Receive adequate reimbursement from Medicare for diagnostic and interventional imaging: Hospital bed size

- Under 100 beds
- 100 to 299 beds
- 300 or more beds

Back to Hospital bed size summary
Appendix: Q4-2014 through Q3-2016 results

Internal operating and staff costs will remain constant: Hospital bed size

- Under 100 beds
- 100 to 299 beds
- 300 or more beds

Back to Hospital bed size summary
Appendix: Q4-2014 through Q3-2016 results

Will have access to capital for imaging equipment and IT needs: Hospital bed size

Back to Hospital bed size summary
Appendix: Q4-2014 through Q3-2016 results

**Average MICI Scores**

**Will maintain/grow as a profit center: Hospital bed size**

- Under 100 beds
- 100 to 299 beds
- 300 or more beds

**Quarter**

- 4th quarter 2014
- 1st quarter 2015
- 2nd quarter 2015
- 3rd quarter 2015
- 4th quarter 2015
- 1st quarter 2016
- 2nd quarter 2016
- 3rd quarter 2016

Back to Hospital bed size summary