TSDA Boot Camp

TSDA General Session
January 26, 2019
TSDA Boot Camp

• Started in 2008
  • Provide in-coming residents with an experiential foundation and hands-on practice in basic CT operating skills so that they are better prepared to enter the CT surgery operating room at their home programs
  • Expose CT faculty to the benefits of simulation
TSDA Boot Camp

• 10 years later…
• Do we still need Boot Camp?
• If so, what should it look like?
• TSDA EC and Boot Camp Directors
  • Financial review
  • Surveyed membership to assess the current simulation needs of programs
# TSDA Boot Camp Finances 2008-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>#</th>
<th>Expenses</th>
<th>Admin Fees</th>
<th>Total Expense</th>
<th>Industry Support</th>
<th>Program Revenue</th>
<th>Total Revenue</th>
<th>Net Revenue</th>
<th>JCTSE/STS Support</th>
<th>Cost per Trainee</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>33</td>
<td>87,917</td>
<td>NC</td>
<td>87,917</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(87,917)</td>
<td>0</td>
<td>2,664</td>
</tr>
<tr>
<td>2009</td>
<td>32</td>
<td>103,686</td>
<td>NC</td>
<td>103,686</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(103,686)</td>
<td>102,677</td>
<td>3,240</td>
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<tr>
<td>2010</td>
<td>32</td>
<td>92,279</td>
<td>NC</td>
<td>92,279</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(92,279)</td>
<td>66,016</td>
<td>2,884</td>
</tr>
<tr>
<td>2011</td>
<td>24</td>
<td>87,764</td>
<td>NC</td>
<td>87,764</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(87,764)</td>
<td>91,800</td>
<td>3,657</td>
</tr>
<tr>
<td>2012</td>
<td>39</td>
<td>87,709</td>
<td>NC</td>
<td>87,709</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(87,709)</td>
<td>97,709</td>
<td>2,249</td>
</tr>
<tr>
<td>2013</td>
<td>30</td>
<td>92,457</td>
<td>NC</td>
<td>92,457</td>
<td>71,500</td>
<td>0</td>
<td>71,500</td>
<td>(20,957)</td>
<td>31,421</td>
<td>3,082</td>
</tr>
<tr>
<td>2014</td>
<td>40</td>
<td>96,267</td>
<td>NC</td>
<td>96,267</td>
<td>101,300</td>
<td>27,994</td>
<td>129,294</td>
<td>33,027</td>
<td>0</td>
<td>2,407</td>
</tr>
<tr>
<td>2015</td>
<td>40</td>
<td>103,993</td>
<td>38,610</td>
<td>142,603</td>
<td>94,300</td>
<td>29,265</td>
<td>123,656</td>
<td>(18,947)</td>
<td>0</td>
<td>3,565</td>
</tr>
<tr>
<td>2016</td>
<td>40</td>
<td>105,181</td>
<td>49,109</td>
<td>154,290</td>
<td>95,200</td>
<td>29,945</td>
<td>125,145</td>
<td>(29,145)</td>
<td>50,000</td>
<td>3,857</td>
</tr>
<tr>
<td>2017</td>
<td>41</td>
<td>116,489</td>
<td>49,659</td>
<td>166,489</td>
<td>65,500</td>
<td>30,775</td>
<td>96,275</td>
<td>(70,214)</td>
<td>69,923</td>
<td>4,060</td>
</tr>
</tbody>
</table>
TSDA Boot Camp

- Current format
  - $4,000 per resident
  - Support for only 40 residents
  - $50,000 in administrative fees
    - 1/3 of STS management fees paid by TSDA
Survey Results

• Observations
  • High cost per enrollee
  • Flat or reduced funding by industry
  • Request by STS to expand enrollment
  • Changing landscape of simulation since inception

Survey of a meaningful cohort of PD’s to assess the value of Boot Camp and any potential modifications

• Survey Methods
  • Qualitative survey methods
  • 6 surveyors (3 from Boot Camp and 3 from TSDA)
  • Standardized questionnaire developed by the 6 surgeons
  • 50% of programs (traditional and integrated) randomly selected
  • PD’s interviewed by phone
  • 72 programs total ➔ 36 selected ➔ 26 responded (72% response rate)
Survey Results

• Programs Surveyed

- Albany Medical College
- Allegheny General Hospital
- Beth Israel Deaconess Medical Center
- Brigham and Women's Hospital
- Cleveland Clinic
- Duke University
- Icahn School of Medicine at Mount Sinai
- Johns Hopkins Hospital
- Loma Linda University
- Northwestern University
- Oregon Health & Science University
- University of Alabama
- University of California, Los Angeles
- University of Kansas
- University of Kentucky
- University of Louisville
- University of Michigan
- University of Nebraska
- University of Pennsylvania
- University of Texas Southwestern
- University of Utah
- University of Washington
- University of Wisconsin
- Virginia Commonwealth University
- Washington University
- Yale-New Haven
Survey Results

• Results
  • What is your perceived value of Boot Camp?
    3.56 ± 0.65 (1-4 scale)
  • Boot camp costs roughly $4,500-$5,000 per trainee. At that cost does it provide enough value to continue?
    50% Yes
  • Among those who feel it should continue, how much are you willing to pay per trainee?
    Mean $3,200 ± $1,536
    Median $2,750
    Range $1,500-$5,000
  • Among those who feel it should continue, how many of your junior trainees should go?
    78% All
Survey Results

• Results
  • *How much simulation activity do you do at your institution?*

![Program Simulation Session Volume Graph](image-url)
Survey Results

• Results
  • Relationship between local simulation volume and an interest in sending a trainee to Boot Camp

Programs Desire to Attend or Not Attend Boot Camp Related to their Local Volume of Simulation Activity

<table>
<thead>
<tr>
<th>Estimated Volume of Simulation Sessions per Year</th>
<th>% Not Attend BC</th>
<th>% Attend BC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 2</td>
<td>16.7%</td>
<td>83.3%</td>
</tr>
<tr>
<td>3 to 4</td>
<td>37.5%</td>
<td>62.5%</td>
</tr>
<tr>
<td>5 to 7</td>
<td>71.4%</td>
<td>28.6%</td>
</tr>
<tr>
<td>&gt;8</td>
<td>80.0%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>
Survey Results

**Results**

- **What are the primary barriers to simulation at your institution?**

<table>
<thead>
<tr>
<th>barrier</th>
<th>All Programs</th>
<th>Programs that would send trainees to BC</th>
<th>Programs that would not send trainees to BC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>81%</td>
<td>77%</td>
<td>90%</td>
</tr>
<tr>
<td>Finance/cost</td>
<td>39%</td>
<td>39%</td>
<td>50%</td>
</tr>
<tr>
<td>Culture/Interest of faculty</td>
<td>31%</td>
<td>39%</td>
<td>20%</td>
</tr>
<tr>
<td>Space</td>
<td>27%</td>
<td>15%</td>
<td>40%</td>
</tr>
<tr>
<td>Availability of good simulators</td>
<td>12%</td>
<td>8%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Survey Results

• Conclusions
  • The perceived benefit of Boot Camp is uniformly high
  • The perceived value (benefit relative to cost) of Boot Camp is lower
    • Only 50% of programs see enough value to send their trainees if that cost was transferred to them
  • The perceived value has a tight inverse relationship to the presence of a robust local simulation program
  • Among the programs that do see value
    • They are willing to pay considerably higher amounts to send their trainees
    • They desire all their junior trainees to attend (PGY6 for Tradition 2 or 3, PGY4 for I6)
    • They cannot overcome the common barriers to implementing simulation locally
TSDA Boot Camp
2019 and Beyond

- Target trainees
  - Only for programs that need it
  - All incoming residents
- What skills are most important
- How do we finance it so it’s sustainable
- STS funding proposal
  - 2019 Boot Camp
    - Help support 65 residents