DO I NEED TO DRAW YOU A PICTURE?
OPPORTUNITIES FOR DATA VIZ TO
IMPROVE SMALL ENTITY REGULATORY ANALYSIS

JONATHAN PORAT
US SBA/ ADVOCACY
REGULATORY ECONOMIST
1. WHAT IS SMALL ENTITY REGULATORY ANALYSIS?
2. IS DATA VIZ RELEVANT TO REGULATORY REVIEW?
3. WHAT HAS ADVOCACY CREATED TO START TO IMPROVE SMALL ENTITY ANALYSIS?
WHAT IS SMALL ENTITY REGULATORY ANALYSIS?
WHAT IS SMALL ENTITY REGULATORY ANALYSIS

SBA OFFICE OF ADVOCACY

▸ Independent voice for small business
▸ Independent research and regulatory flexibility
▸ Work with agencies, the White House, and small businesses
▸ Bolstered by the Regulatory Flexibility Act and EO 13272
ADVOCACY’S ROLE

▸ Review regulations before they are finalized

▸ Help agencies enforce the RFA

▸ Identify whether a rule will have a significant impact on a substantial number of small entities

▸ Help agencies consider alternatives to their proposal that can reduce the regulatory burden while meeting agency objectives
WHAT IS SMALL ENTITY REGULATORY ANALYSIS

KEY DATA POINTS FOR SMALL BUSINESS REGULATORY ANALYSES

- How many small businesses are affected?
  - How many small businesses are in an industry?
  - Who counts as a small entity - SBA size standards

- The significance of the economic impact of the regulation
  - Revenues of small businesses - many agencies look for costs exceeding 1% of revenues
WHAT IS SMALL ENTITY REGULATORY ANALYSIS

SMALL ENTITY ANALYSIS PROCESS

▸ Advocacy and agency want to make sure policies do not unnecessarily burden small entities

▸ Have a legal obligation to perform small entity analysis

▸ Need to quantitatively analyze small business impacts

▸ More in depth data and cleaner analysis allows for more effective and efficient regulatory alternatives to improve policy
IS DATA VIZ RELEVANT TO SMALL ENTITY ANALYSIS?
### DOJ/ADA Movie Theater Captioning Cost and Revenue Estimates by Firm Size (2015)

<table>
<thead>
<tr>
<th>Cost</th>
<th>Firms $499,999 and under</th>
<th>Firms $500,000 to $4,999,999</th>
<th>Firms $5,000,000 to $35,500,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average receipts per firm</td>
<td>$188,384 to $201,973</td>
<td>$1,471,549 to $1,484,995</td>
<td>$9,705,377 to $12,437,259</td>
</tr>
<tr>
<td>Average cost per theater</td>
<td>$3,198 to $3,966</td>
<td>$10,063 to $10,586</td>
<td>$13,984 to $17,281</td>
</tr>
<tr>
<td>Average cost per firm</td>
<td>$3,233 to $3,992</td>
<td>$12,539 to $14,454</td>
<td>$81,176 to $103,309</td>
</tr>
<tr>
<td>Ratio of average cost/receipts</td>
<td>1.6% to 2.1%</td>
<td>0.8% to 1.0%</td>
<td>0.7% to 1.1%</td>
</tr>
</tbody>
</table>
WHAT DO THE TABLES TELL US?

- High burden on smallest entities
- Not clear if other small businesses are affected as heavily
- We need more information
DOES VISUALIZING THE DATA GIVE US MORE INFORMATION?
TABLEAU VISUAL OF COSTS WITH SALES TEST
TABLEAU VISUAL OF COSTS WITH SALES TEST
TABLEAU VISUAL OF COSTS WITH SALES TEST
TABLEAU VISUAL OF COSTS WITH ESTABLISHMENTS
IS DATA VIZ RELEVANT TO REGULATORY REVIEW

TABLEAU VISUAL OF COSTS WITH ESTABLISHMENTS

Cost per firm with establishments per firm

Revenue Category
Less than $100,000
$100,000 to $499,999
$500,000 to $999,999
$1,000,000 to $2,499,999
$2,500,000 to $4,999,999
$5,000,000 to $7,499,999
$7,500,000 to $9,999,999
$10,000,000 to $14,999,999
$15,000,000 to $19,999,999
$20,000,000 to $24,999,999
$25,000,000 to $29,999,999
$35,000,000 to $39,999,999

Average Upfront Costs Per Firm

0K 20K 40K 60K 80K 100K 120K 140K 160K 180K 200K 220K 240K
WHAT HAS ADVOCACY CREATED TO START TO IMPROVE SMALL ENTITY ANALYSIS?
RECALL KEY DATA POINTS FOR SMALL BUSINESS REGULATORY ANALYSES

- How many small businesses are affected
  - How many small businesses are in an industry
- The significance of the economic impact of the regulation
  - Revenues of small businesses
- Other economic impacts on employment and entrepreneurship
COMMON BARRIERS TO THOROUGH SMALL BIZ ANALYSIS

- Difficult to access data if unfamiliar
- Data does not always work well together
- Various definitions for small business- rely on size standards
- Agencies and researchers can be pressed on time and resources
WHAT HAS ADVOCACY CREATED TO START TO IMPROVE SMALL ENTITY ANALYSIS

ADVOCACY’S TABLEAU SUSB DATA SOLUTION

▸ Relies on most up-to-date SUSB data

▸ Integrates SBA size standards

▸ On Tableau data visualization software

▸ Automatically calculates key small business analysis data points
<table>
<thead>
<tr>
<th>SIC Code</th>
<th>Industry</th>
<th>Business Size</th>
<th># of Firms</th>
<th>Cumulative % of Firms</th>
<th>Employment</th>
<th>Estimated Receipts</th>
<th>Receipts Per Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>7831</td>
<td>Motion Picture Theaters (except Drive-Ins)</td>
<td>Small</td>
<td>1,827</td>
<td>97%</td>
<td>34,063</td>
<td>$2,507M</td>
<td>$82.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Between Size Standard</td>
<td>6</td>
<td>98%</td>
<td>1,563</td>
<td>$165M</td>
<td>$27.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Large</td>
<td>43</td>
<td>100%</td>
<td>86,998</td>
<td>$10,520M</td>
<td>$704.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All Businesses</td>
<td>1,876</td>
<td>100%</td>
<td>128,089</td>
<td>$13,325M</td>
<td>$7.10</td>
</tr>
<tr>
<td>NAICS Code</td>
<td>Industry</td>
<td>Receipt Size Category</td>
<td>Business Size</td>
<td># of Firms</td>
<td>Running # of Firms</td>
<td>Running % of Total Firms</td>
<td>Employment</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------</td>
<td>-----------------------</td>
<td>---------------</td>
<td>------------</td>
<td>-------------------</td>
<td>--------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>512131</td>
<td>Motion Picture Theaters (except Drive-Ins)</td>
<td>Less Than $100K</td>
<td>Small</td>
<td>244</td>
<td>244</td>
<td>13%</td>
<td>619</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$100K-$499.9K</td>
<td>Small</td>
<td>618</td>
<td>862</td>
<td>46%</td>
<td>4,067</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$500K-$999.9K</td>
<td>Small</td>
<td>332</td>
<td>1,194</td>
<td>64%</td>
<td>4,303</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1M-$2.49M</td>
<td>Small</td>
<td>399</td>
<td>1,593</td>
<td>85%</td>
<td>8,773</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$2.5M-$4.9M</td>
<td>Small</td>
<td>125</td>
<td>1,718</td>
<td>92%</td>
<td>4,791</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$5M-$7.49M</td>
<td>Small</td>
<td>35</td>
<td>1,753</td>
<td>93%</td>
<td>2,249</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$7.5M-$9.9M</td>
<td>Small</td>
<td>19</td>
<td>1,772</td>
<td>94%</td>
<td>1,582</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$10M-$14.9M</td>
<td>Small</td>
<td>26</td>
<td>1,798</td>
<td>96%</td>
<td>3,326</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$15M-$19.9M</td>
<td>Small</td>
<td>9</td>
<td>1,807</td>
<td>96%</td>
<td>1,407</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$20M-$24.9M</td>
<td>Small</td>
<td>10</td>
<td>1,817</td>
<td>97%</td>
<td>1,573</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$25M-$29.9M</td>
<td>Small</td>
<td>6</td>
<td>1,823</td>
<td>97%</td>
<td>1,373</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$30M-$34.9M</td>
<td>Small</td>
<td>4</td>
<td>1,827</td>
<td>97%</td>
<td>Suppressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$35M-$39.9M</td>
<td>Between Size Standards</td>
<td>6</td>
<td>1,833</td>
<td>98%</td>
<td>1,563</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$40M-$49.9M</td>
<td>Large</td>
<td>6</td>
<td>1,839</td>
<td>98%</td>
<td>Suppressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$50M-$74.9M</td>
<td>Large</td>
<td>14</td>
<td>1,853</td>
<td>99%</td>
<td>6,317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Over $100M</td>
<td>Large</td>
<td>17</td>
<td>1,876</td>
<td>100%</td>
<td>75,368</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$75M-$99.9M</td>
<td>Large</td>
<td>6</td>
<td>1,859</td>
<td>99%</td>
<td>5,313</td>
</tr>
</tbody>
</table>
Number of Firms by Employment

- Less Than $100K: 244
- $100K-$499.9K: 618
- $500K-$999.9K: 332
- $1M-$2.49M: 399
- $2.5M-$4.9M: 125
- $5M-$7.49M: 35
- $7.5M-$9.9M: 19
- $10M-$14.9M: 26
- $15M-$19.9M: 9
- $20M-$24.9M: 10
- $25M-$29.9M: 6
- $35M-$39.9M: 6

Number of Firms: 619

Sum of Employment: 8,773
KEY TAKE AWAYS

1. We can apply data analysis and visualization concepts to bolster small entity regulatory analysis.

2. Data analysis and visualization concepts add value to small entity analysis.

3. Advocacy’s SUSB data solution is a good first step in making use of the value added.