1. Identify the **Issue** you’re trying to solve

2. Determine how to **Measure** the outcome

3. Set a measurable **Goal** for improvement

4. Identify, test, and implement the **Strategy**

5. Measure the results and **Refine** the strategy

**The Process**
ECONOMY

Nobel in Economics Is Awarded to Richard Thaler

By BINYAMIN APPELBAUM  OCT. 9, 2017

NEW YORK TIMES BESTSELLER

Nudge

Improving Decisions About Health, Wealth, and Happiness

Richard H. Thaler and Cass R. Sunstein

Revised and Expanded Edition

"One of the few books I've read recently that fundamentally changes the way I think about the world." —Steven D. Levitt, coauthor of Freakonomics
### Easy, Attractive, Social, Timely (EAST)

<table>
<thead>
<tr>
<th>Easy</th>
<th>Attractive</th>
<th>Social</th>
<th>Timely</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Defaults</strong></td>
<td><strong>Scarcity</strong></td>
<td><strong>Descriptive Norm</strong></td>
<td><strong>Prompts</strong></td>
</tr>
<tr>
<td>We tend to ‘go with the flow’ of a pre-set option.</td>
<td>We are more attracted to goods if we believe supply is limited.</td>
<td>We use other people’s behavior as a cue. “Most students only miss one day of school per quarter. Your student has missed 5 days of school in the last quarter.”</td>
<td>We are more likely to undertake an activity if given a prompt at the right moment.</td>
</tr>
<tr>
<td>Saying “the default payment method is automatic draft” when signing up for utilities payments.</td>
<td>“The deadline to sign up is in 15 days.”</td>
<td></td>
<td>Making a payment on a Friday, payday for most people.</td>
</tr>
</tbody>
</table>
Applying Behavioral Insights

1. Define the Outcome
   Reduce the number of time payment orders that lead to bench warrants by 20%

2. Understand the Context
   72% of time payment orders result in bench warrants after 6 months

3. Build the Intervention
   Phone calls and text messages at key points (i.e. Fridays) to prompt payment

4. Test, learn, adapt
   Track the data and scale up what’s working
Issue & Context

• What’s the issue you’re trying to solve?
  – High percentage of failure to pay fines resulting in warrants for nonpayment

• What is your measurable goal?
  – Reduce the number of time payment orders resulting in warrants issued by 20%

• How does it connect to strategic outcomes
  – Opportunity & Financial Well-Being
Bench Warrants Issued – Status Quo

6 months:
Bench Warrants

6 months:
Bench Warrants
Bench Warrants Issued – Current State

Div 1
Time Payment Orders: 4270

Div 2
Time Payment Orders: 3163

Div 3
Time Payment Orders: 3670

Total: 5351

72% Bench Warrants

Status

What it means
72% of people issued time payment orders end up with a bench warrant.
Bench Warrants Issued – Future State

6 months:
20% Reduction in Warrants
Bench Warrants Issued – Future State

Phone Calls
- Div 1: Time Payment Orders: 4270
- Div 2: Time Payment Orders: 3163
- Div 3: Time Payment Orders: 3670

Total: 5351

SMS Messages
- Div 2: Time Payment Orders: 3163

Control
- Div 3: Time Payment Orders: 3670

Expected non-payers
- Div 1: 3853 (72%)
- Div 2: -771 (-20%)

Intervention impacting
## Strategic Direction & Actions

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Action Plan / Next Steps</th>
<th>By When</th>
<th>Hurdles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a reminder system for people who are issued time payment orders</td>
<td>Create the language that goes in the reminder</td>
<td>November 15</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Subscribe to SMS message service</td>
<td>November 30</td>
<td>Cost and complexity of implementation</td>
</tr>
<tr>
<td></td>
<td>Track individual cases</td>
<td>December</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Scale up based on which tactic works best</td>
<td>June 2018</td>
<td>None</td>
</tr>
</tbody>
</table>
TulStat
Police

The City Experience

November 9, 2017
Issue & Context

• The Issue
  – Homicides are on an increasing trend since 2011.

• The Goals
  – Update on latest trend in homicides
  – Update on gun seizures
  – Update on Domestic Violence research
  – Update on Detective Division

• How it connects to strategic outcomes
  – Connected to The City Experience: Decrease Violent Crime
This chart shows the number of homicides per year in Tulsa. A trend line is included showing an increasing trend. A forecast is included showing a potential total (83) and expected range (75-87) for calendar year 2017 (Forecast as of 10/31/2017). This increasing trend is also being experienced by most major US cities (MCCA).
What it means

Our Special Investigations Division (SID) is seizing many guns preventing them from being used in homicides and other crimes. Through 11/3/2017 we already have 445 guns seized. Note: This chart uses total guns seized by the division, whereas previous charts have used eTrace (ATF) counts.
What it means

This line chart shows Domestic related homicides since 2011 in Tulsa, showing an increase in 2016. As of 10/31/2017, Calendar year 2017 looks to be lower than 2016.
The Spatial Distribution of Domestic Violence Calls for Service at Addresses, July 2013 – January 2017

• 78,952 total domestic violence CFS
• 32,635 unique addresses

• 60.4% of addresses had only 1 CFS
• 29.0% of addresses had 2-4 CFS
• 10.6% of addresses had 5+ CFS

• 10.6% of addresses with 5+ CFS represented 44.2% of total CFS

Source: University of Cincinnati Center for Police Research and Policy, 9/18/2017
# Summary of Individuals Arrested for Domestic Violence Incidents by TPD with Time to Re-Arrest, 2010-2017*

<table>
<thead>
<tr>
<th>Number of Incidents</th>
<th>Number of Suspects</th>
<th>Percent of Suspects</th>
<th>Average Time to Re-Arrest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Incident</td>
<td>16,131</td>
<td>75.6</td>
<td>-</td>
</tr>
<tr>
<td>2 Incidents</td>
<td>3,097</td>
<td>14.5</td>
<td>525 Days</td>
</tr>
<tr>
<td>3 Incidents</td>
<td>1,122</td>
<td>5.3</td>
<td>417 Days</td>
</tr>
<tr>
<td>4 Incidents</td>
<td>480</td>
<td>2.2</td>
<td>348 Days</td>
</tr>
<tr>
<td>5+ Incidents</td>
<td>508</td>
<td>2.4</td>
<td>244 Days</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21,338</strong></td>
<td><strong>100.0</strong></td>
<td>-</td>
</tr>
</tbody>
</table>

*As of April 30, 2017  
Source: University of Cincinnati Center for Police Research and Policy, 9/18/2017
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</tr>
</thead>
<tbody>
<tr>
<td>Work with University of Cincinnati (UC) on reducing our domestic violence</td>
<td>Finalizing the data agreement</td>
<td>Completed</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Completed</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Complete MOU</td>
<td>Completed</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Schedule first planning session</td>
<td>Completed 9/18/2017</td>
<td>Data analysis produced unexpected results</td>
<td></td>
</tr>
<tr>
<td>Return to research phase</td>
<td>In Progress</td>
<td>Waiting for results</td>
<td></td>
</tr>
</tbody>
</table>
TulStat
911 Public Safety Communications
The City Experience
November 9, 2017
Issue & Context

• What's the issue you're trying to solve?
  - Employ enough 911 telecommunicators to fully operate call-taking and dispatch positions at the 911 center every day of the year

• What is your measurable goal?
  - Meet the NENA call answering standard that requires answering 90% of all 9-1-1 calls within 10 seconds of arriving at Tulsa 911 during the busy hour each day

• How does it connect to strategic outcomes
  - Connected to The City Experience (Decrease traffic fatalities and violent crime)
Power of Staffing for Answer Time

Level of Service for Staff Numbers (346 calls/1/2 hr.)

<table>
<thead>
<tr>
<th>Agents</th>
<th>ASA</th>
</tr>
</thead>
</table>
| 54     | 6 sec.
| 53     | 8 sec.
| 52     | 12 sec.
| 51     | 19 sec.
| 50     | 30 sec.
| 49     | 50 sec.
| 48     | 91 sec.
| 47     | 236 sec.

What it means
KPI Objective – Meet NENA standard for call answer times by sufficient staffing numbers.
APCO Project RETAINS – “The addition of a single employee can make a huge difference in employee stress and the quality of service provided to the public.”
What it means

KPI Objective – Meet NENA standard for call answer times by sufficient staffing numbers.

APCO Project Retains Workbook recommends the number of staff needed for quality indicators of answer time, abandon call rate, employee satisfaction and retention.
As the # of trained people increases, 911 call answer time decreases.

**Status**

- **Answering Calls Quickly**

**What it means**

The City Experience

Violent Crime

Traffic Fatalities
# Strategic Direction & Actions

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Achieve full staffing</td>
<td>Hire – improving recruiting &amp; hiring process</td>
<td>Ongoing</td>
<td>Qualified applicants; lengthy hiring process</td>
</tr>
<tr>
<td></td>
<td>Train – starting smaller academies</td>
<td>Ongoing</td>
<td>Revamping training modules and testing</td>
</tr>
<tr>
<td></td>
<td>Retain – fair salary, improved progression initiatives; culture change from seniority-</td>
<td>Ongoing</td>
<td>Training progressions and salary study initiatives</td>
</tr>
<tr>
<td></td>
<td>based to merit-based</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Entrenched attitudes, bullying of new hires</td>
</tr>
</tbody>
</table>
Conclusion

Improved outcomes for citizens and responders means retaining a staff of 100 telecommunicators