

IBTTA's Toll Revenue Assurance Committee presents:

# ***RevFinder*<sup>TM</sup>: Unlocking Lessons from Toll Operators' Experience in Revenue Assurance**

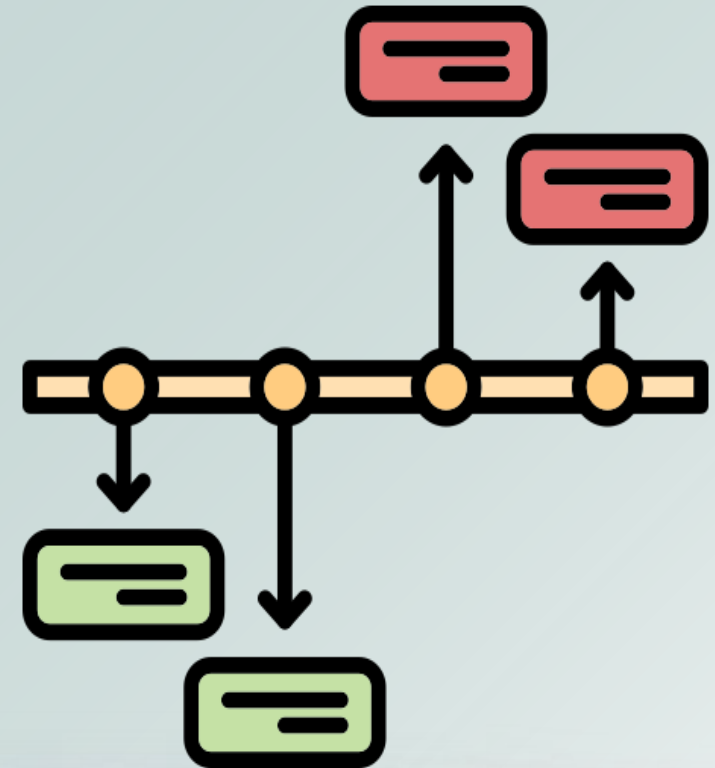
Virtual Workshop

**February 29, 2024**


# WHY AND HOW THIS TASK FORCE

## FOUR YEAR PROGRESSION

- ↑ INDUSTRY WORKING **TOGETHER** TO IMPROVE REVENUE COLLECTION
- ↓ REDUCE LEAKAGE



# BRIEF SUMMARY OF THE WORK

**86****MEMBERS****33****TOLL OPERATORS**PLUS CONSULTANTS AND SERVICE  
PROVIDORS**04****YEARS**OF COLLABORATION AND IDEA  
SHARING**04****COMMITTEES** Defined a common language and direction for data

Created a tool for agencies to map to:

- Map to the common language to define revenue collection performance
- Connect needs (how well performing) to solutions (Best Practices)

# ~~LRTF~~ TRAC WHERE ARE WE GOING

## REVFINDER SUPPORT

WE ARE HERE TO SUPPORT YOU

## REVFINDER SHARING

IF YOU LIKE IT, TELL A FRIEND

## AGENCIES NEED TO SHARE

IF WE SHARE, WE CAN BENEFIT MORE

## SEATTLE WORKSHOP RECAP

JOIN THE TEAM AND BENEFIT

**TOGETHER WE CAN DO  
BETTER.  
WE AS AN INDUSTRY ARE  
NOT RESTING!**

# MEETING AGENDA

## Toll Operators Peer-to-Peer Exchange On Revenue Collection Effectiveness

- Overview of the *RevFinder™* Online Self Assessment Tool and Status of Data Collection
- Open Step by Step Discussion: Revenue Collection Experience
  - Maximizing transponder and registered video
  - Minimizing the unbillable and uncollectible
- Next Steps

# OVERVIEW – Revenue Collection

## AET Operations: Initial Results

400 to 800 of every 1000 total transactions are valid transponder reads.

100 to 400 of every 1000 total transactions are matched to customers based on license plate image.

400 - 500 out of every 1000 transactions that are based on license plates of unregistered customers eventually pay the toll

866 to 973 of every 1000 total transactions realize revenue.

# OVERVIEW – Latest Observations: Leakage

## AET Operations: Initial Results

35 - 80 of every 1000 image-based transactions are unreadable.
20 - 70 of every 1000 unique license plates will not have an address available.
70 - 80 of every 1000 unique addresses sent to will come back undeliverable.
350 - 500 of every 1000 customers who receive bills will not pay.
500-600 of every 1000 transactions relying on a license plate image will not collect revenue.

Unbillable	Uncollectible
✓	
✓	
	✓
	✓
	✓

# **WORKSHOP DISCUSSION** – For Each Topic:

## **1. Review the data received**

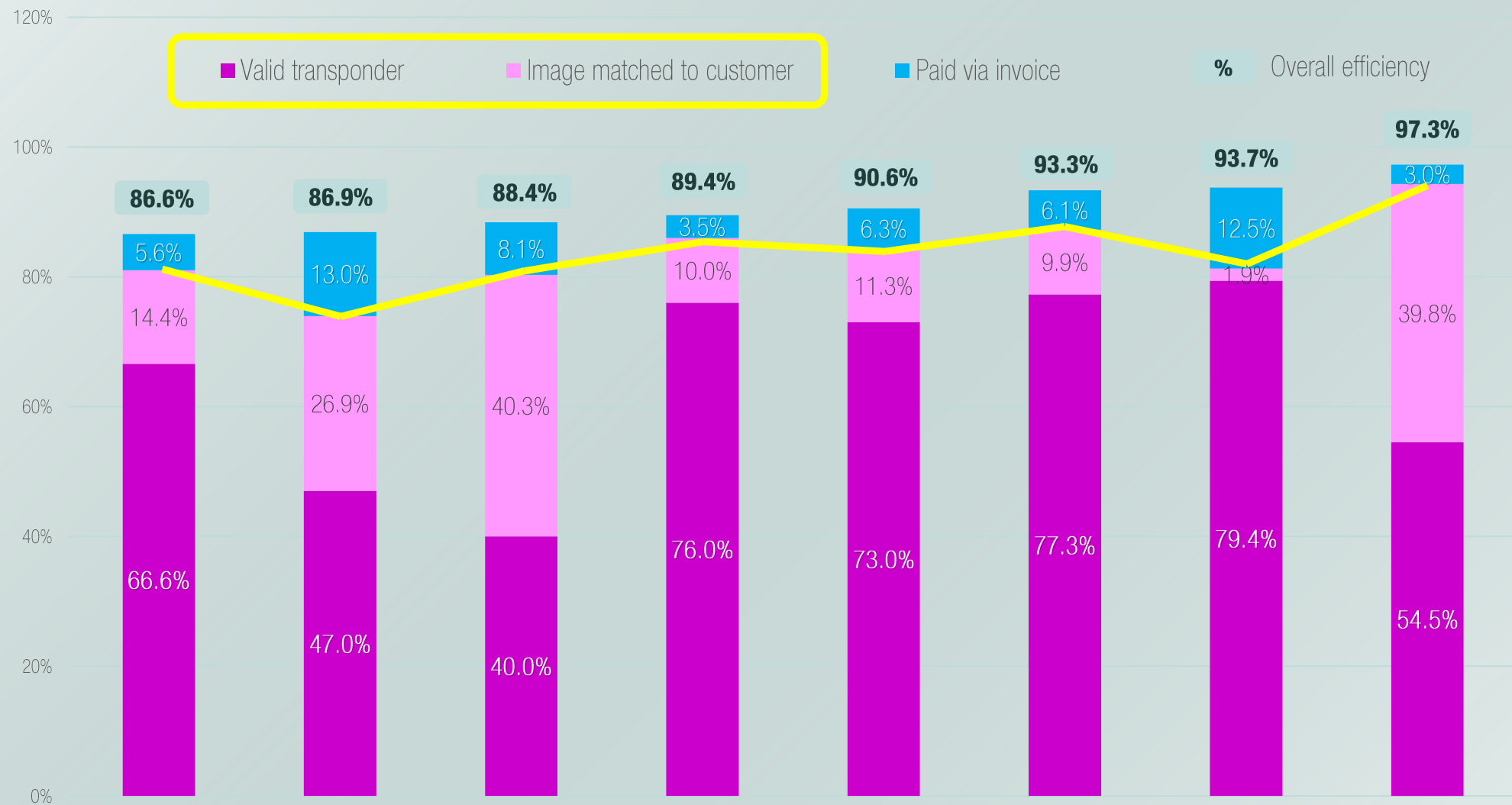
## **2. Discuss agency experiences by topic:**

- What success has been realized?
- What efforts have not yielded success yet?
- Where do the biggest challenges remain?
- Is there a practical limit to how far the metric can go?

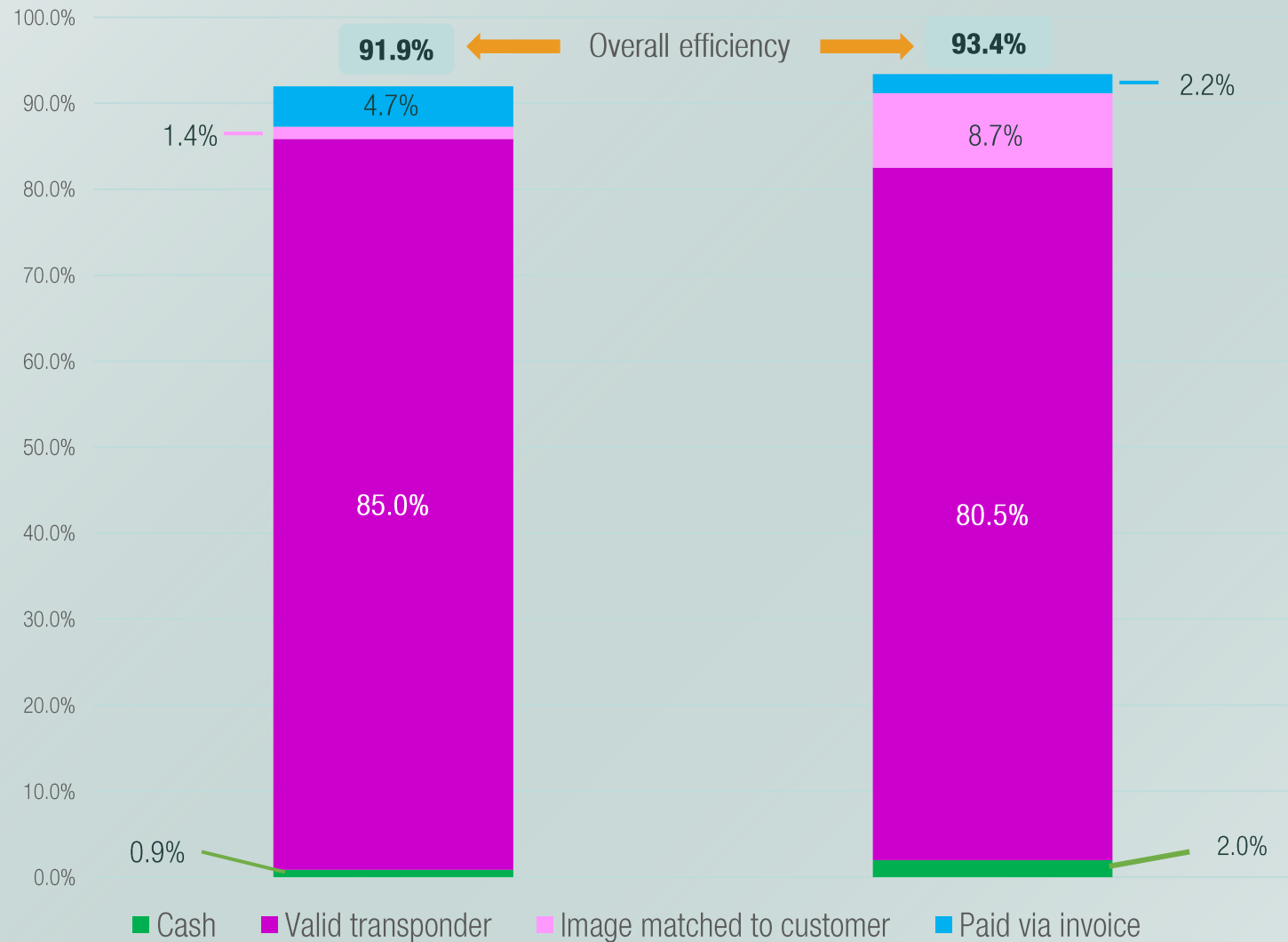
## **3. Ways to share this information for the benefit of operators**



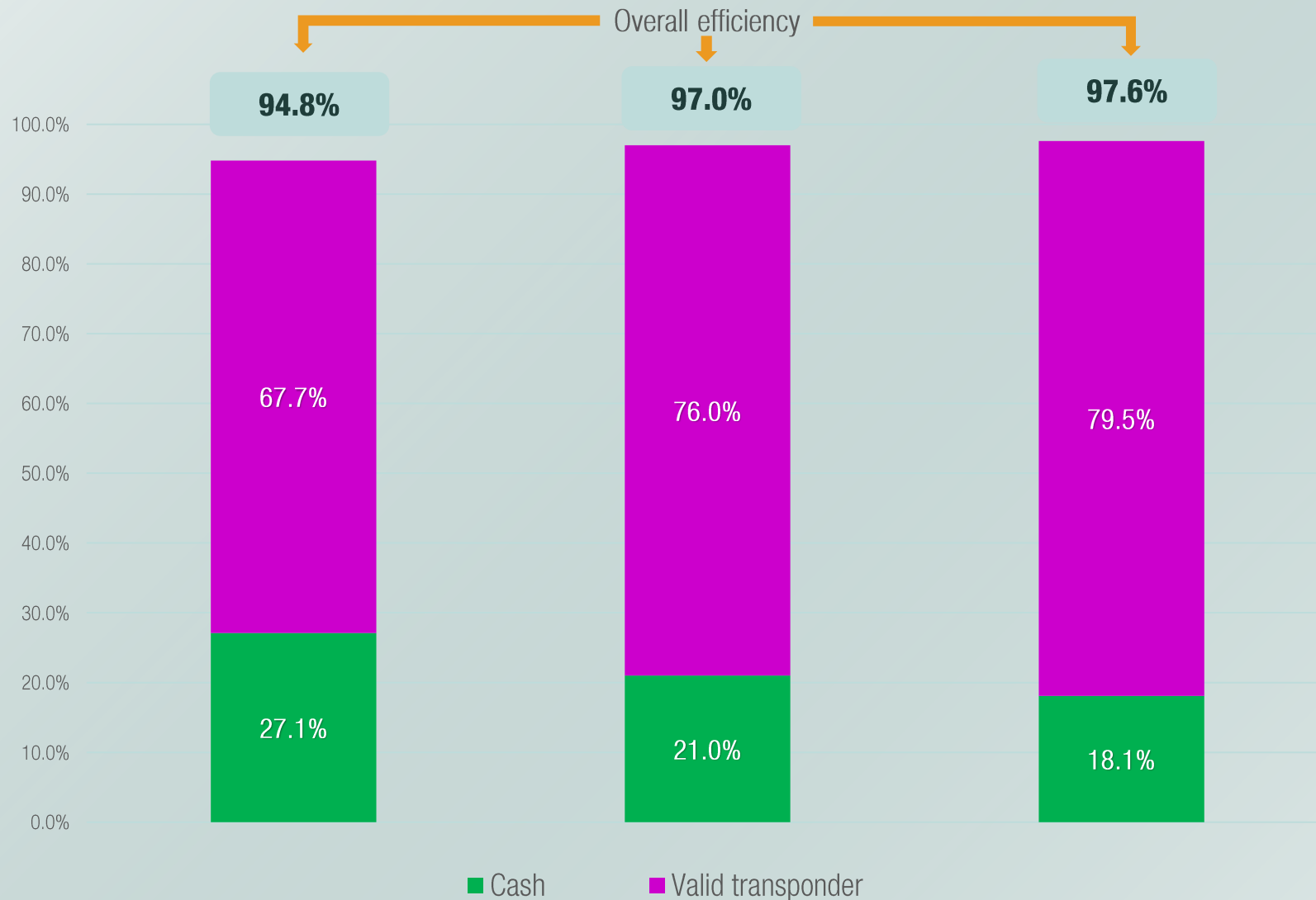
# Maximizing Transponder Use and Images Matched to Customers (AET Operators)



# Maximizing Transponder Use and Images Matched to Customers (Operators in Transition to AET)



# Maximizing Revenue Collection (Operators with Cash Collection on the Roadway)



## **DISCUSSION:** Maximizing Valid Transponder Reads

- Transponders have been considered the most accurate and cost-effective means of creating a transaction and the most certain for revenue collection.
- 40-80% of total transactions are from valid transponder reads in the lane

### **Discussion Starters:**

- Do you prioritize transponders before license plates? Why? How?
- What are your latest approaches to promote transponder use and transponder-based account creation?
- What do you want to try next? What are you curious about learning from what others are doing?
- Do you think there is a ceiling to transponder use and why?

# **DISCUSSION:** Maximizing Known Customers Via License Plate

- 10-40% of total transactions are matched to customers based on a license plate image.

## **Discussion Starters:**

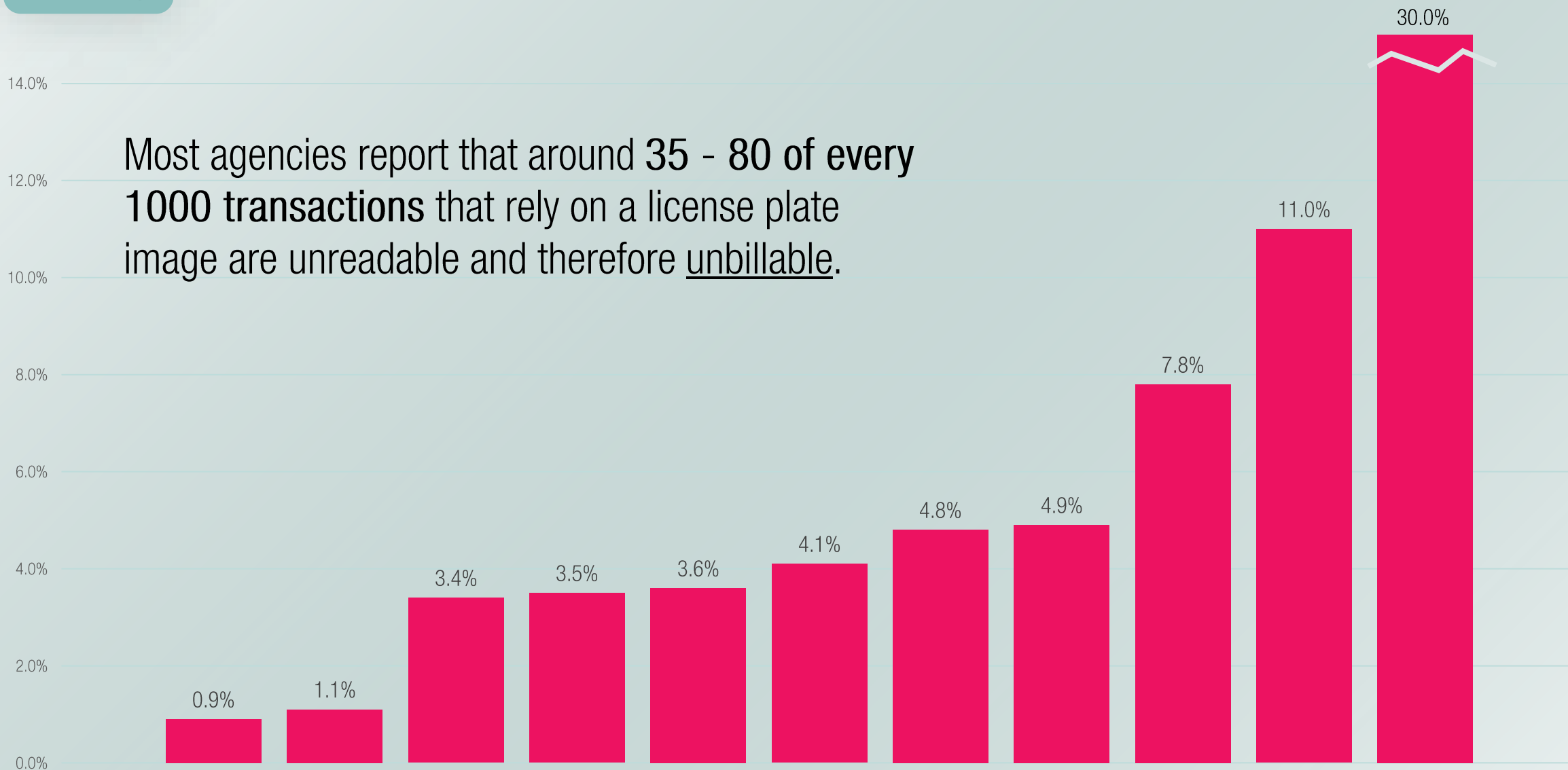
- How successful are the processes you use to match license plates to known customers?
- Matching transponder customers is often the result of customers not mounting tags or improperly mounting tags. What are the latest views, approaches here?
- Offering registered or prepaid license plate accounts generally have higher costs and may introduce greater uncertainty in revenue collection. How are agencies embracing and approaching this option?
  - Not all agencies offer these customer products, how do agencies view pros and cons?
  - Is the higher cost of transaction processing attractive tradeoff to minimize invoicing?



Results and ranges

# UNREADABLE IMAGES

Most agencies report that around **35 - 80 of every 1000 transactions** that rely on a license plate image are unreadable and therefore unbillable.



# Reasons for Unreadable Images: A Wide Range

Operator	Unreadable: No Plate	Unreadable: Unintentional	Unreadable: Intentional	Unreadable: Hardware or Software	Unreadable: Policy	Unreadable: Weather	Unreadable: Other
State Road & Tollway Authority	21.38%	25.74%	0.13%	10.12%	39.69%	2.94%	0.00%
Pennsylvania Turnpike Commission	47.32%	41.95%	2.20%	3.17%	0.98%		4.39%
Northwest Parkway LLC	12.15%	28.81%	10.17%	42.09%	0.00%	5.93%	0.85%
Transportation Corridor Agencies	53.64%						46.36%

# **DISCUSSION:** Minimizing unreadable images

- 3-8% of image-based transactions do not have a readable image so cannot be pursued

## **Discussion Starters:**

- What are people doing to improve readable image performance?
- Focusing on system improvements that have proven to be effective?
- How are the customer behavior issues being addressed?
- Is there a point of diminishing return here?

# UNPURSUED IMAGE TRANSACTIONS

*(Based business rules or policy considerations)*



Results and ranges

- Three agencies reported they pursue all transactions and do not have categories of “unpursued transactions.”
- Six agencies do follow this approach.  
1-4% of readable image transactions are not pursued for various business reasons and therefore an address is not identified for invoicing and transaction deemed unbillable.



## **DISCUSSION:** Deciding what to pursue or not

- 0-4% of image-based transactions are not pursued by agencies for policy or business reasons

### **Discussion Starters:**

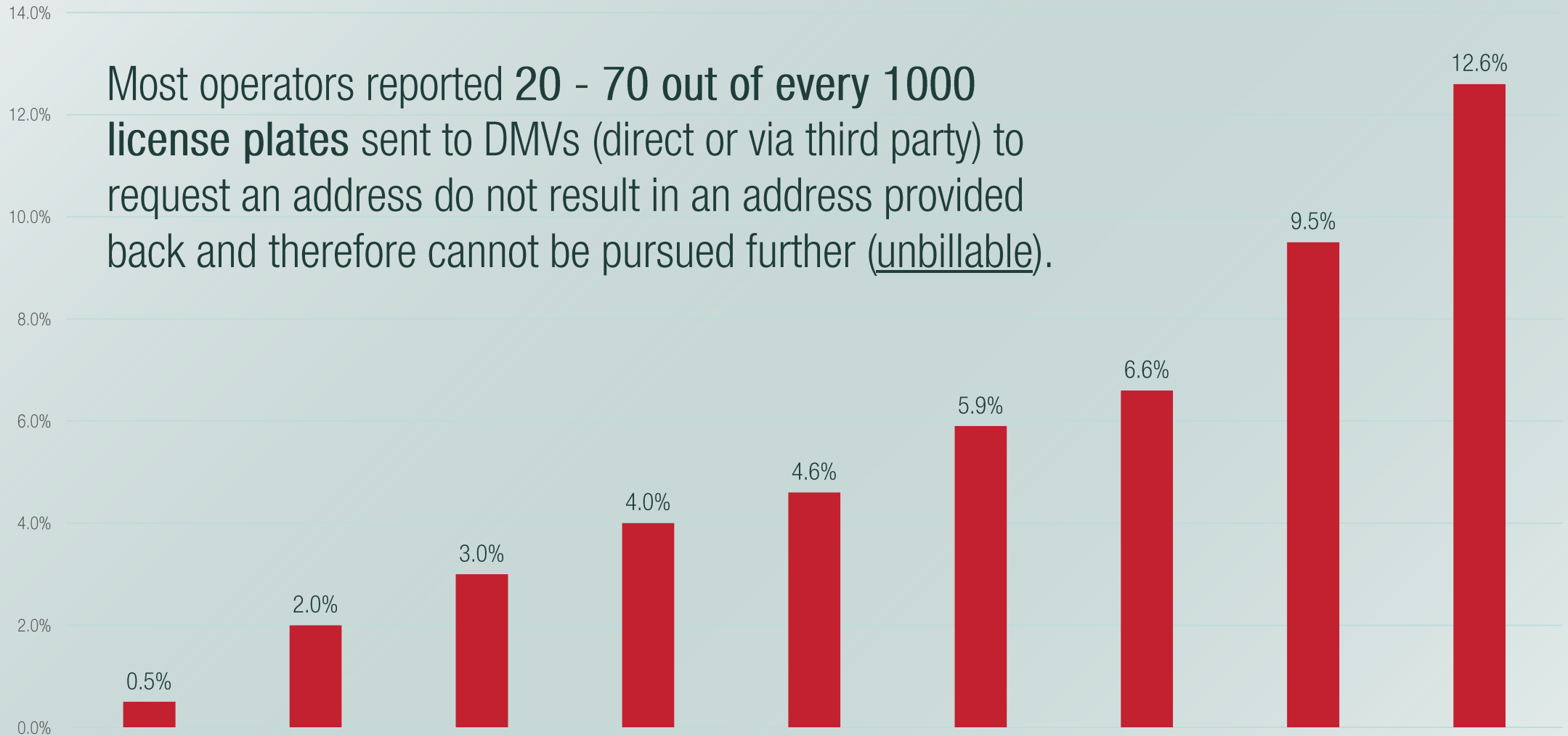
- Why are some agencies choosing to pursue every image-based transaction that is not associated with a registered customer or account?
- If an agency is not pursuing some transactions, why?
- Has the practice of not pursuing certain transactions resulted in any issues or unintended consequences?



Results and ranges

# UNAVAILABLE ADDRESSES

Most operators reported 20 - 70 out of every 1000 license plates sent to DMVs (direct or via third party) to request an address do not result in an address provided back and therefore cannot be pursued further (unbillable).



## **DISCUSSION:** Minimizing unavailable Addresses from DMVs

- 2-13% of transactions that agency seeks to invoice cannot be processed because an address is not identified.

### **Discussion Starters:**

- What is your experience with the quality of DMV data and the ability to act on it?
- Where do you believe there are opportunities to improve DMV responsiveness and capabilities to support tolling?
  - Systems, interfaces/data exchange, business processes and rules, personnel/staffing, legislative constraints, financial constraints?
- What is the appetite for improvements or is the process capped out?



Results and ranges

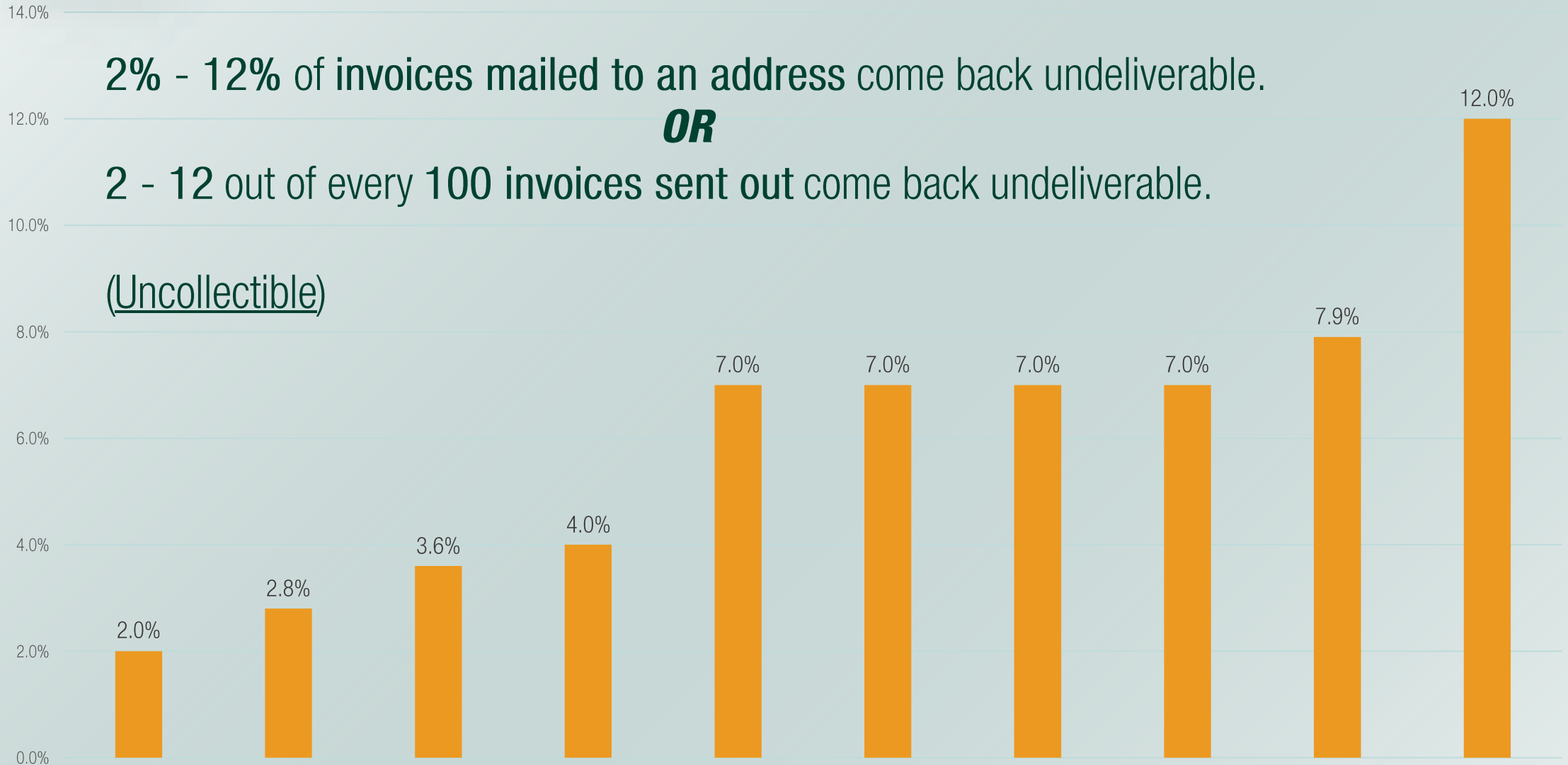
# UNDELIVERABLE MAIL

2% - 12% of invoices mailed to an address come back undeliverable.

**OR**

2 - 12 out of every 100 invoices sent out come back undeliverable.

(Uncollectible)



# **DISCUSSION:** Minimizing Undeliverable Mail

- 2-12% of transactions that are invoiced result in undeliverable mail.

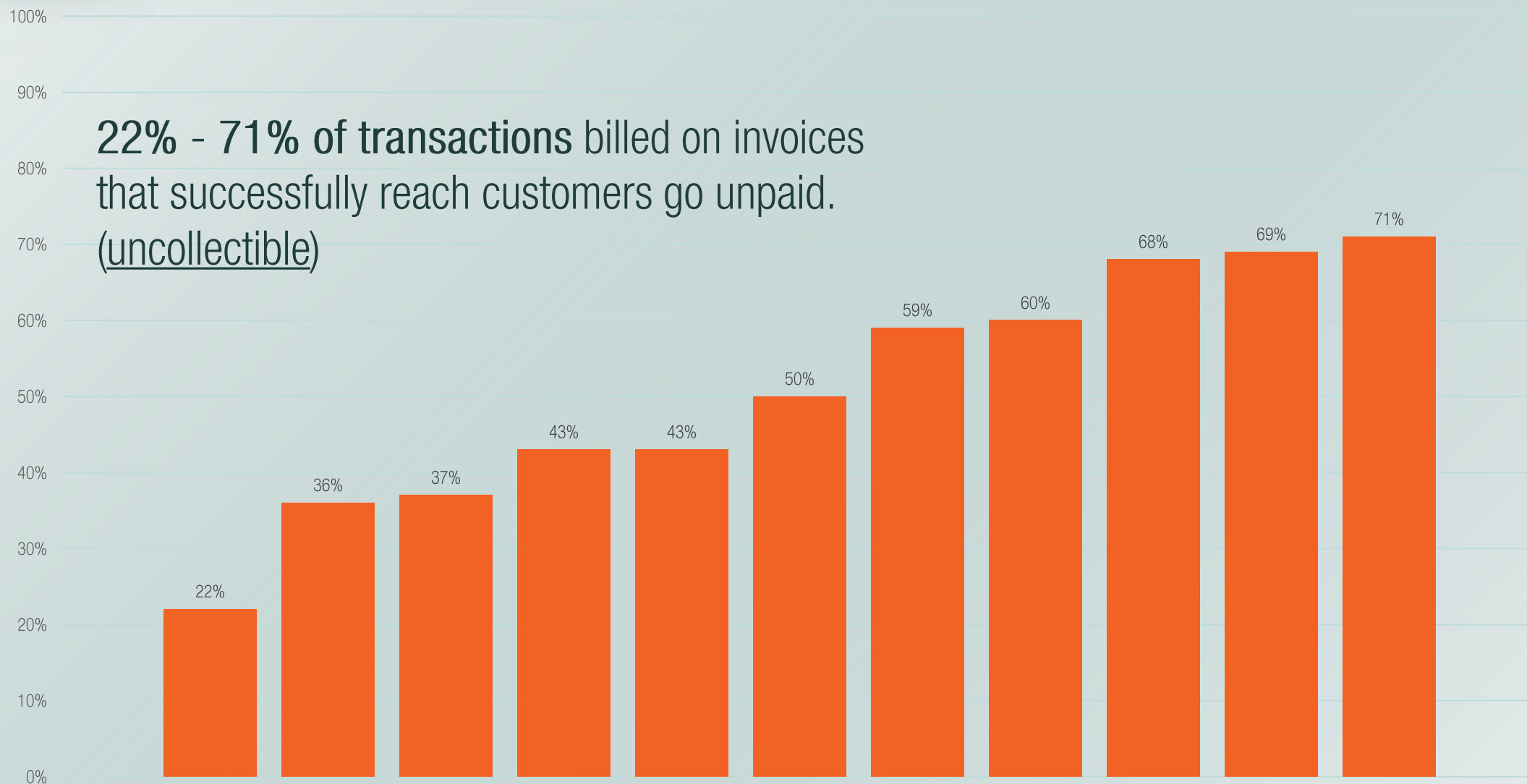
## **Discussion Starters:**

- What if anything remains to be done for improving this?
- Is there a point of diminishing returns?

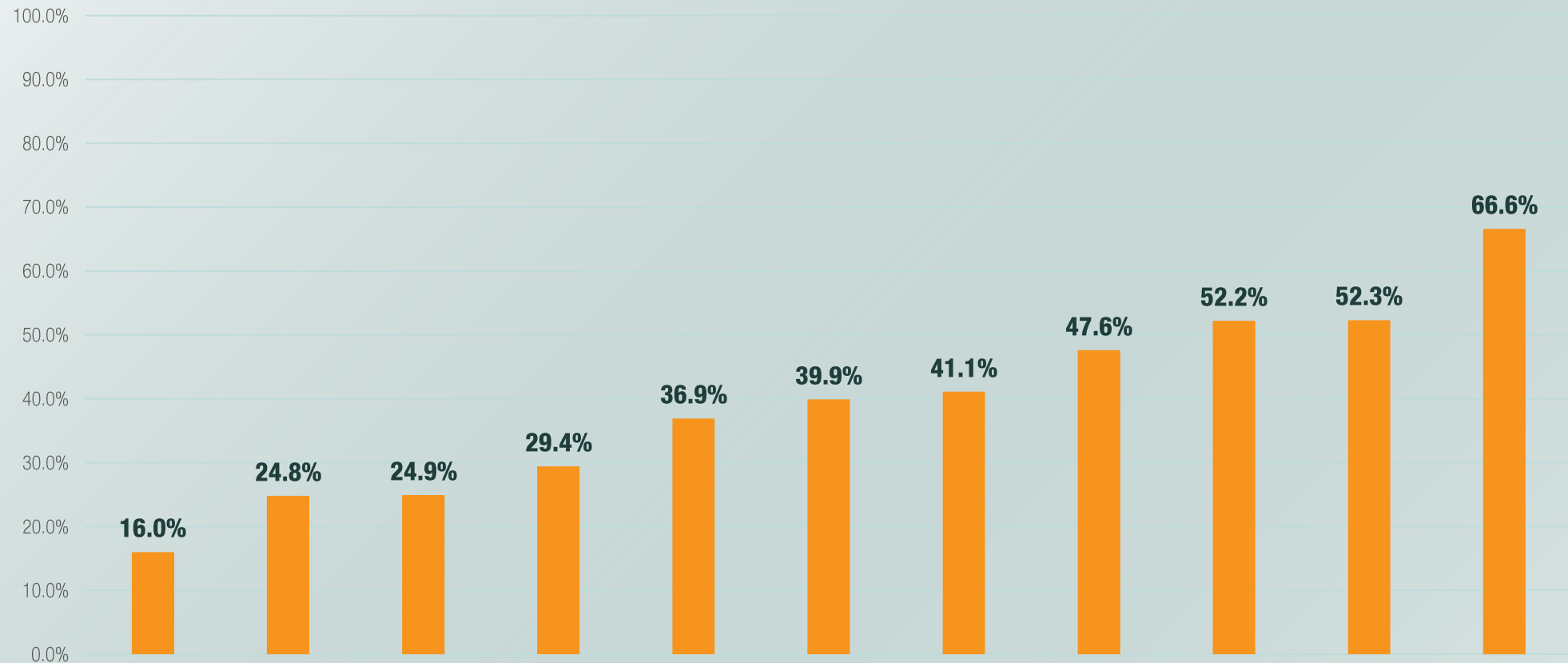


Results and ranges

# UNPAID TRANSACTIONS



# INVOICE COLLECTION EFFICIENCY (from image in the lane to paid toll)



For most operators, around 250 - 500 out of every 1000 transactions that are based on license plates of unregistered customers eventually pay the toll.

OR

Overall, operators are seeing anywhere from 2 to 7 in every 10 transactions realizing toll payment when relying on license plate images and invoicing by mail for unregistered customers.

# **DISCUSSION:** Maximizing invoice payments

- 20-70% of invoiced transactions go unpaid (uncollectible).

## **Discussion Starters:**

- The BIGGEST topic of them all, what are the latest carrots and sticks?
- Core concepts/models
  - Everyone is always a customer
  - Customer can become violator
  - Anyone unregistered within X days of travel = violator
  - Anyone unregistered = violator

# Closing

## What is next...

- Continued data collection
- More experience sharing!
- How agencies are organizing and “driving their data stack”
- How agencies are communicating progress
- Subcommittee work support
  - Best practices
  - Rate setting approaches
  - Interstate reciprocity and enforcement



# Backup Slides as Needed

# The RevFinder™ Experience



Understanding,  
gathering inputs,  
and support for  
how to use it



Using the Tool:  
Feedback and  
sharing  
experiences



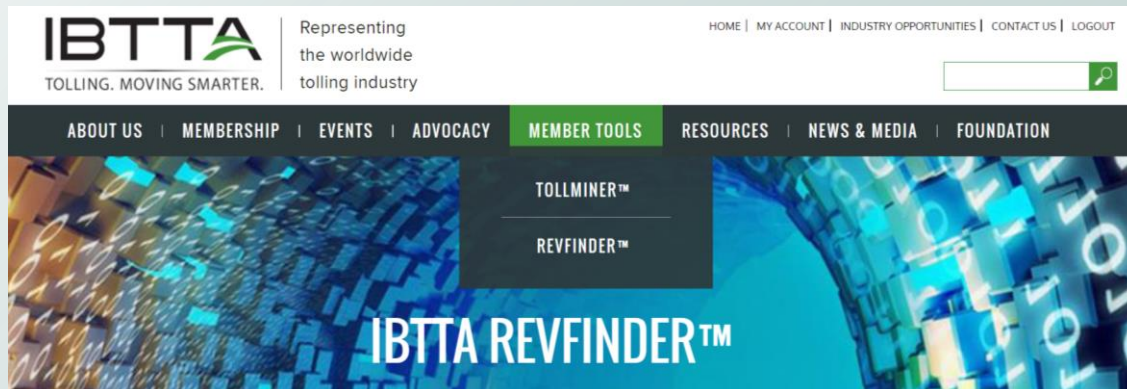
The decision to  
submit or not yet  
and the reasons



Share thoughts on  
how results may be  
useful to toll operators



# RevFinder™ Overview



## Plentiful online information and guidance.

### How does it work?

**RevFinder** enables toll operators to rapidly determine where they stand in terms of revenue collection improvement. As the user answers a small set of questions, a common stack of data, specific to the operator, is built to illustrate potential focus areas. Answers to these questions lead to two key metrics that apply across the industry. The metrics are:

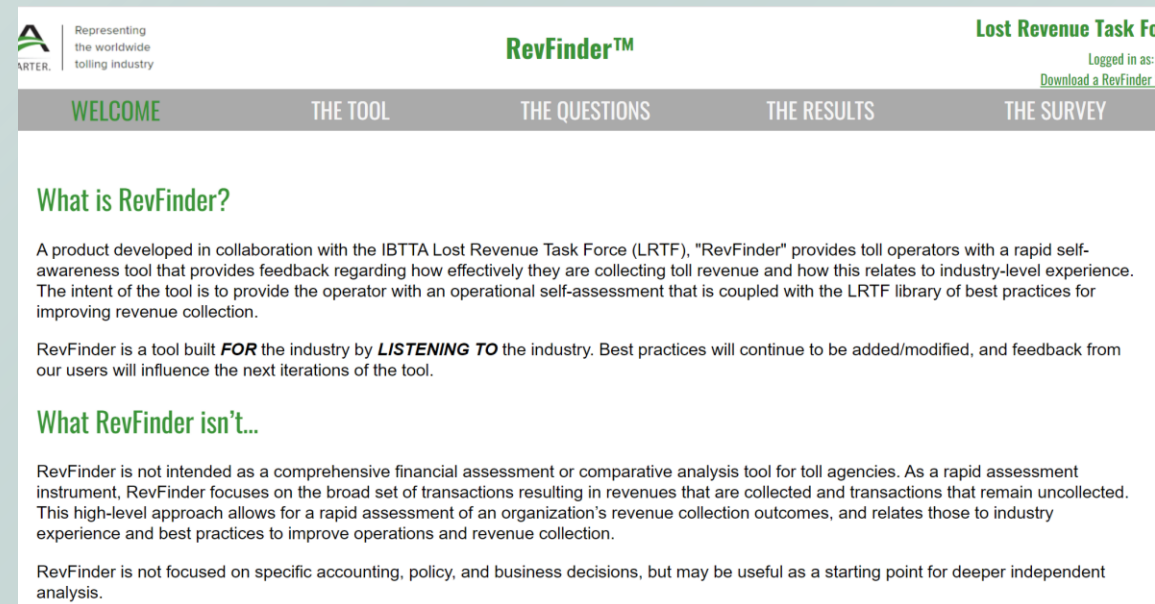
1. **Overall Effectiveness:** Total Paid Transactions/Total Transactions
2. **Invoice Effectiveness:** Total Transactions Paid via Invoicing/Total Transactions Subject to Invoicing

For both metrics, higher calculated values suggest a higher level of revenue collection effectiveness.

**RevFinder** calculates an operator's specific metrics and displays them in a stack. Each element of the revenue collection process illustrated in the stack will be linked to a resource library of best practices that may indicate improvement opportunities.

### Why Percentage of Total Transactions?

Each RevFinder question relates to one element of the revenue collection process and translates back to a common denominator of total transactions. By showing each element of the collection process as a percentage of **total transactions**, toll operators can more readily assess different time periods and elements of the collection process. Using percentages makes it easy to relate agency performance to the industry experience and target best practices for improvement.



### What is RevFinder?

A product developed in collaboration with the IBTTA Lost Revenue Task Force (LRTF), "RevFinder" provides toll operators with a rapid self-awareness tool that provides feedback regarding how effectively they are collecting toll revenue and how this relates to industry-level experience. The intent of the tool is to provide the operator with an operational self-assessment that is coupled with the LRTF library of best practices for improving revenue collection.

RevFinder is a tool built **FOR** the industry by **LISTENING TO** the industry. Best practices will continue to be added/modified, and feedback from our users will influence the next iterations of the tool.

### What RevFinder isn't...

RevFinder is not intended as a comprehensive financial assessment or comparative analysis tool for toll agencies. As a rapid assessment instrument, RevFinder focuses on the broad set of transactions resulting in revenues that are collected and transactions that remain uncollected. This high-level approach allows for a rapid assessment of an organization's revenue collection outcomes, and relates those to industry experience and best practices to improve operations and revenue collection.

RevFinder is not focused on specific accounting, policy, and business decisions, but may be useful as a starting point for deeper independent analysis.

## The Lost Revenue Task Force team is available to walk through the tool, answer questions, and help interpret results.

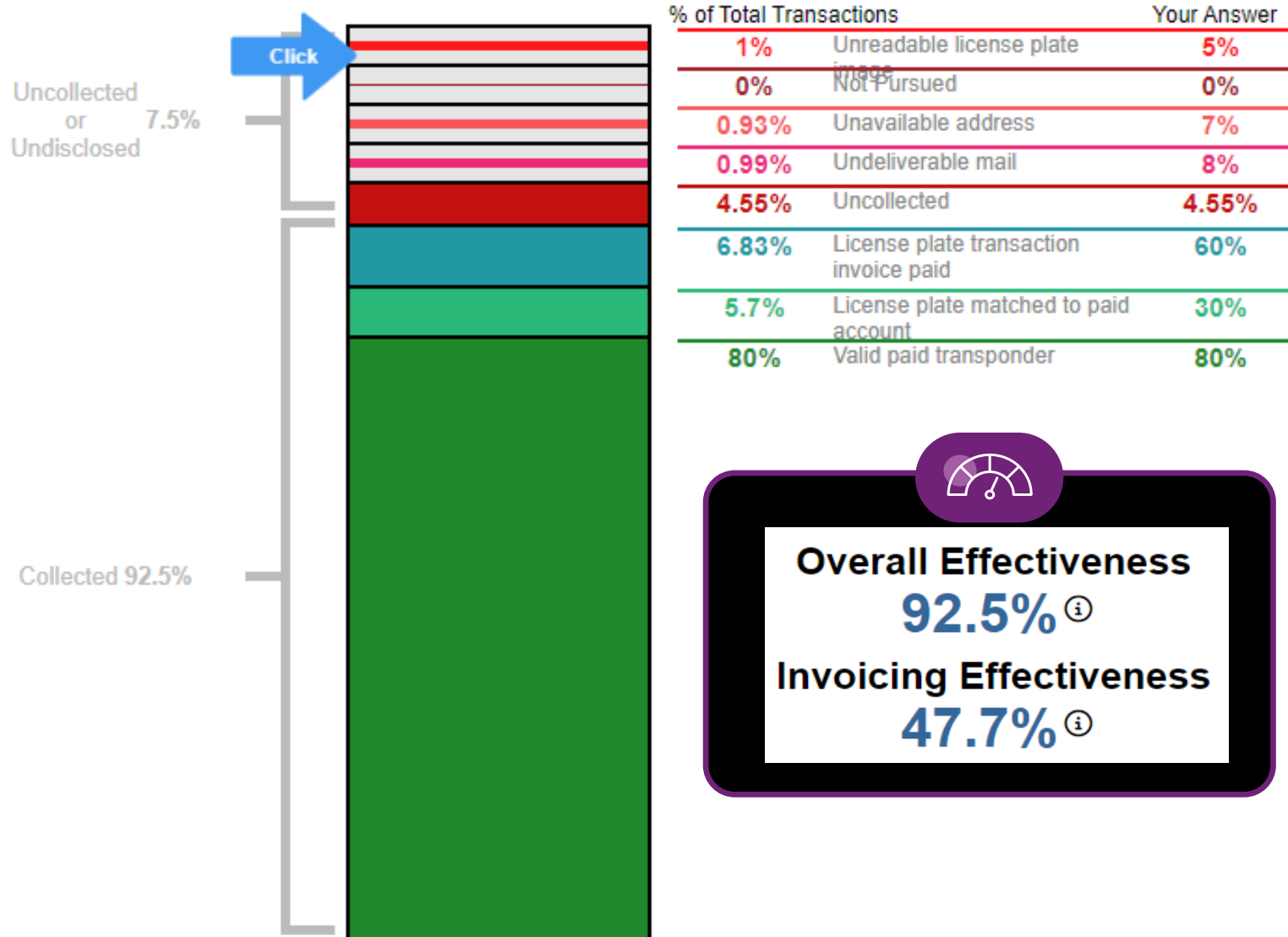
<https://www.ibtta.org/content/ibtta-revfinder-tool/>

# A Handful of Data Points is All You Need

*Data are based on transactions with no financial information required.*

- Valid Paid Transponder
  - (Do you use image processing?)
- Unreadable License Plate Images
- License Plate Matched to Immediate Payment
  - (Do you mail invoices?)
- Not Pursued due to Business Rules or Policy
- Unavailable Address
- Undeliverable Mail
- Paid on Mailed Invoice or Notice

# Summary Level Results: *"The Stack"*



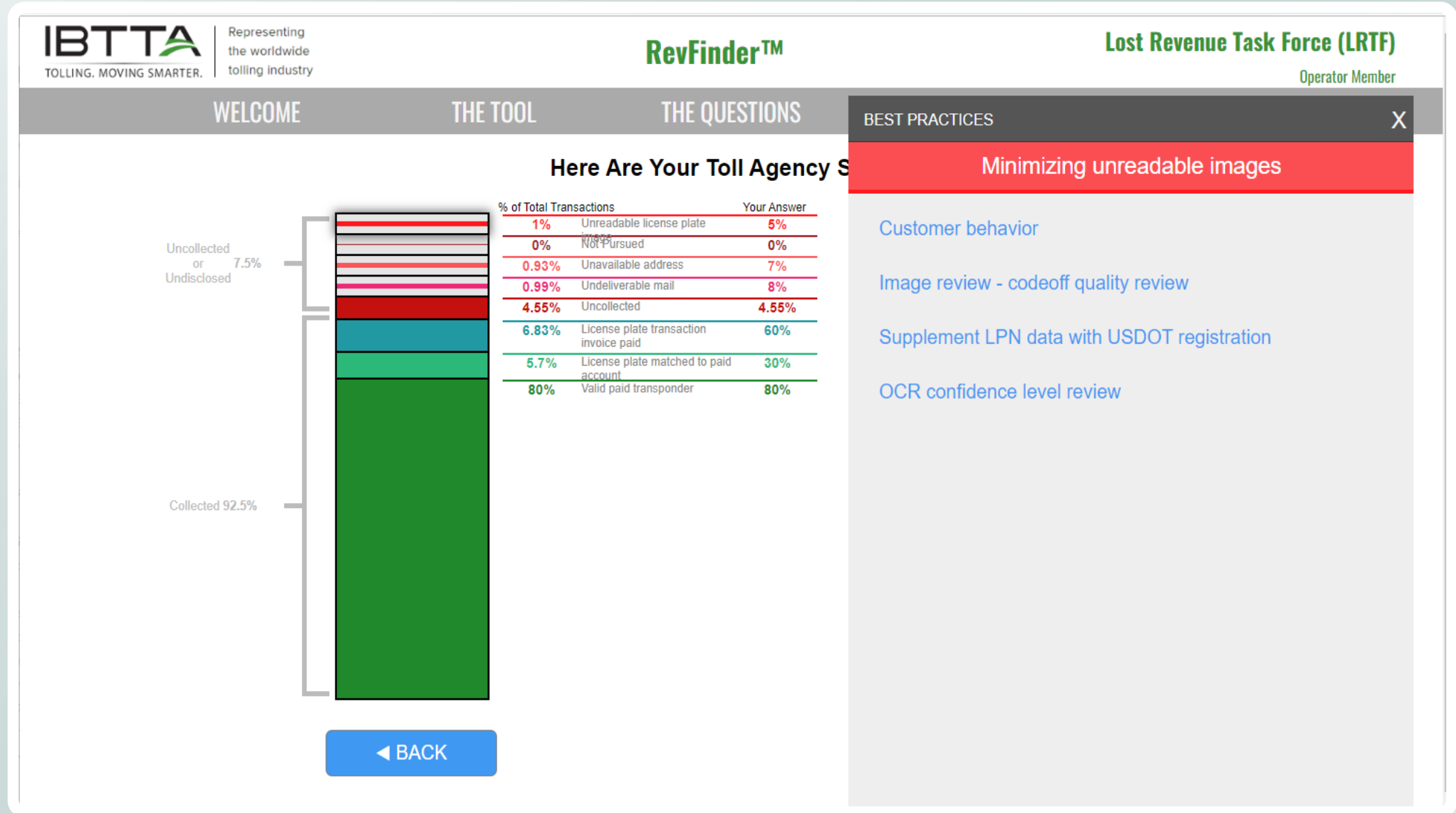
Help Us Help You - Submit Your Data!  
(Operators Only)

✓ Aggregate your RevFinder "Stack Data" (Default) ⓘ

☒ Store All RevFinder Data Points! (Preferred!) ⓘ

SUBMIT

# RevFinder™ Results Linked to Best Practices



WELCOME

THE TOOL

THE QUESTIONS

BEST PRACTICES

Here Are Your Toll Agency Statistics

Uncollected or Undisclosed 7.5%

Collected 92.5%

% of Total Transactions	Category	Your Answer
1%	Unreadable license plate images	5%
0%	Not Pursued	0%
0.93%	Unavailable address	7%
0.99%	Undeliverable mail	8%
4.55%	Uncollected	4.55%
6.83%	License plate transaction invoice paid	60%
5.7%	License plate matched to paid account	30%
80%	Valid paid transponder	80%

◀ BACK

Minimizing unreadable images

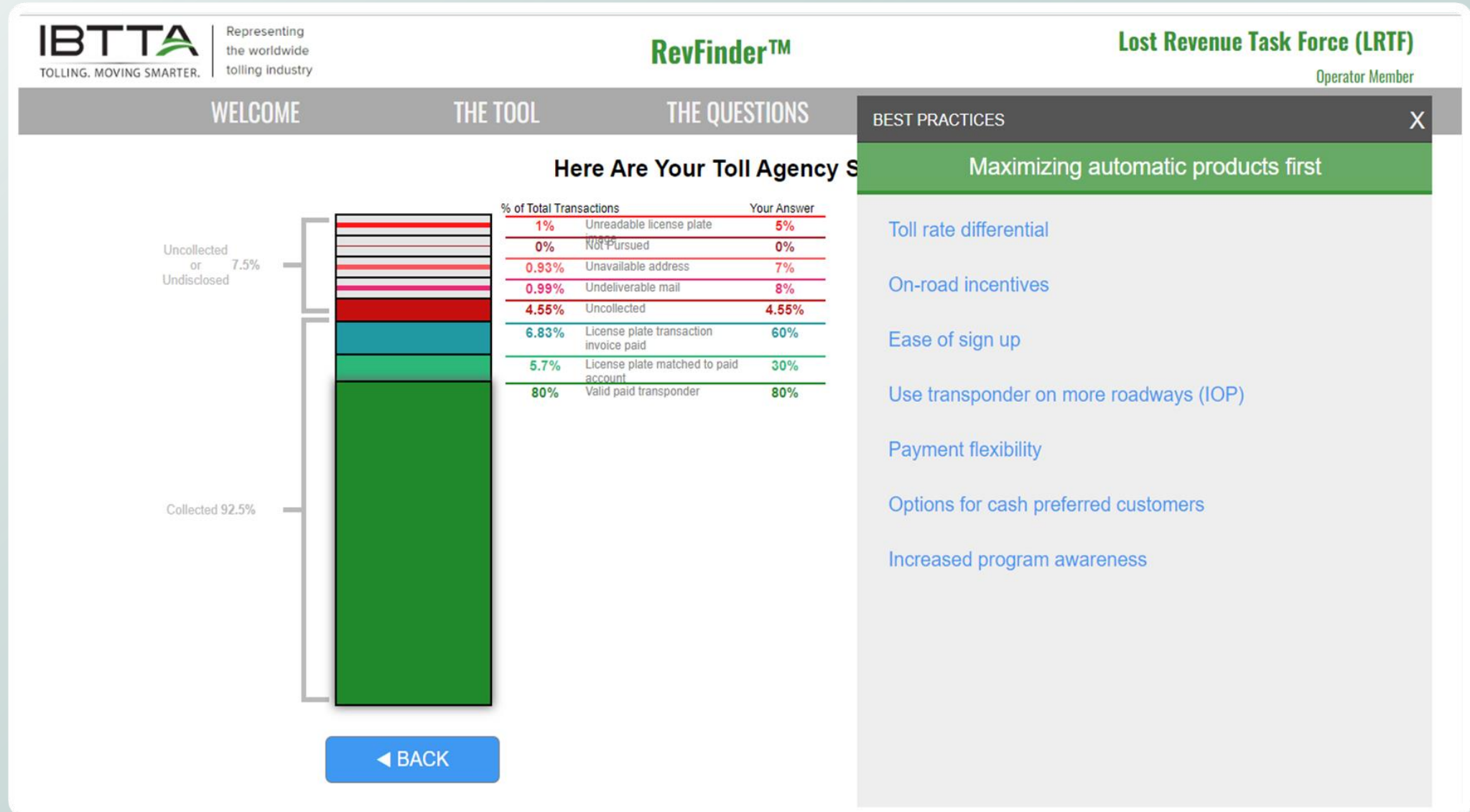
Customer behavior

Image review - codeoff quality review

Supplement LPN data with USDOT registration

OCR confidence level review

# RevFinder™ Results Linked to Best Practices



WELCOME
THE TOOL
THE QUESTIONS
BEST PRACTICES

Here Are Your Toll Agency Statistics


% of Total Transactions	Transaction Type	Your Answer
1%	Unreadable license plate	5%
0%	Not Pursued	0%
0.93%	Unavailable address	7%
0.99%	Undeliverable mail	8%
4.55%	Uncollected	4.55%
6.83%	License plate transaction invoice paid	60%
5.7%	License plate matched to paid account	30%
80%	Valid paid transponder	80%

◀ BACK

Maximizing automatic products first

- Toll rate differential
- On-road incentives
- Ease of sign up
- Use transponder on more roadways (IOP)
- Payment flexibility
- Options for cash preferred customers
- Increased program awareness

# Drill Down for Best Practice Examples



Representing  
the worldwide  
tolling industry

RevFinder™

Lost Revenue Task Force (LRTF)

Logged in as: Operator Member

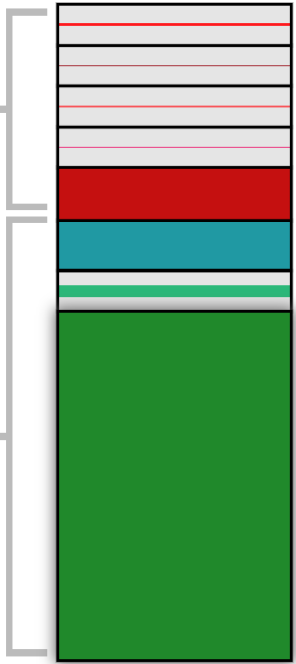
WELCOME

THE TOOL

THE QUESTIONS

## Here Are Your Toll Agency Scores

Uncollected or Undisclosed 9.8%



% of Total Transactions		Your Answer
0.4%	Unreadable image	2%
0.04%	Not pursued	0.2%
0.35%	Unavailable address	2%
0.17%	Undeliverable mail	1%
8.88%	Uncollected	8.88%
8.2%	Image transaction invoice paid	48%
1.96%	Image matched to paid account	10%
80%	Valid paid transponder	80%

◀ BACK

BEST PRACTICES

Maximizing automatic products first

All Categories > Ease of sign up

**Third party fulfillment**  
CFX offering transponders on Amazon.  
Example Agency: Central Florida Expressway  
[More Information](#)

**Agency walk in centers**  
NTTA has opened numerous TollTag Stores throughout greater Dallas and Fort Worth areas based on customer needs in the region.  
Example Agency: North Texas Tollway Authority  
[More Information](#)

**Retail distribution, "Go Paks"**  
PTC partners with a wide range of retail outlets to offer transponders for customers in convenient locations.  
Example Agency: Pennsylvania Turnpike Commission  
[More Information](#)

**Sales in staffed toll lanes**  
CFX offers "Reload Lanes" where customers can open accounts and reload accounts.  
Example Agency: Central Florida Expressway  
[More Information](#)