

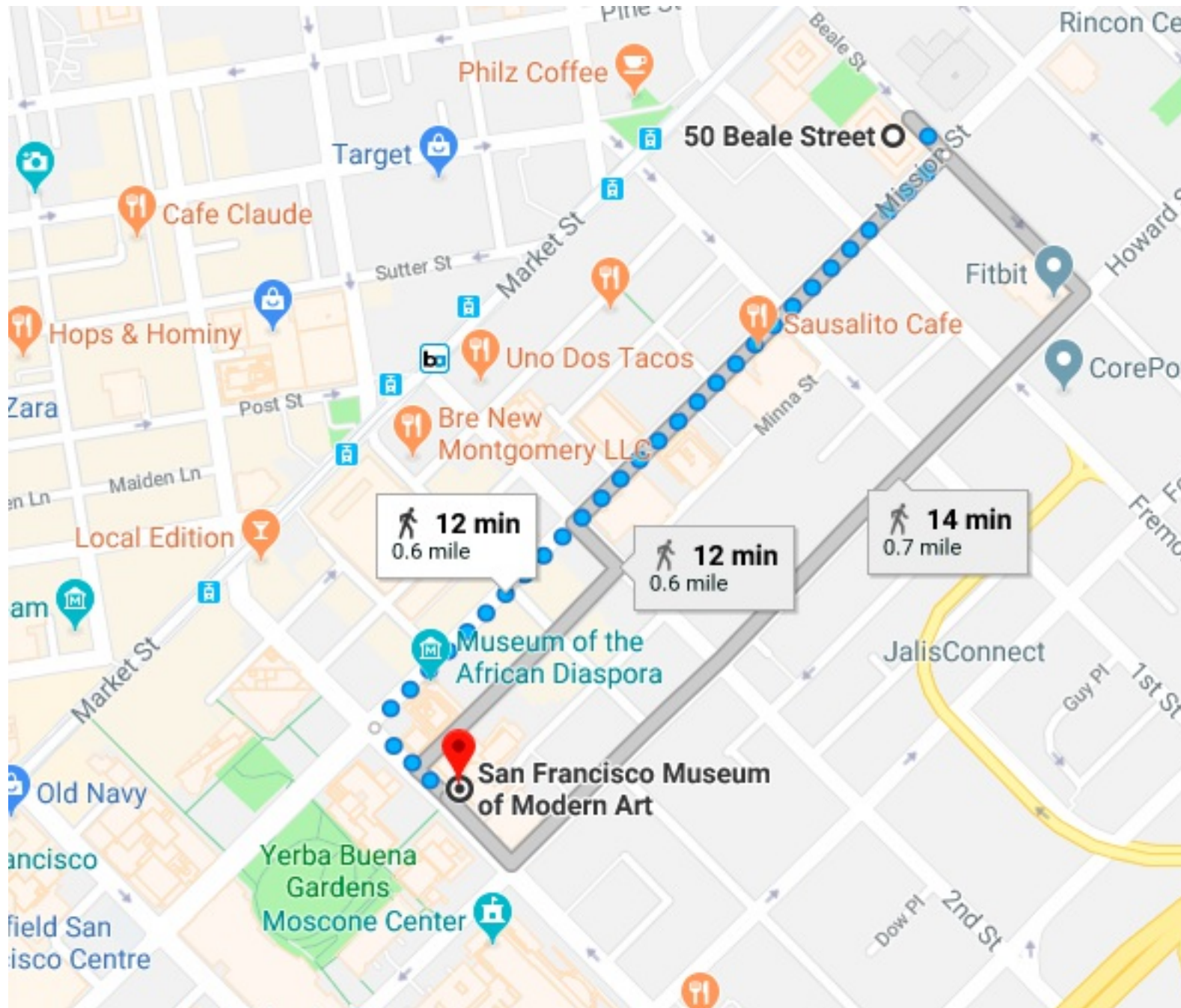
R @ SFMOMA

Jon Spring

Dir. of Financial Planning and Treasury
Operations

2018-08-07

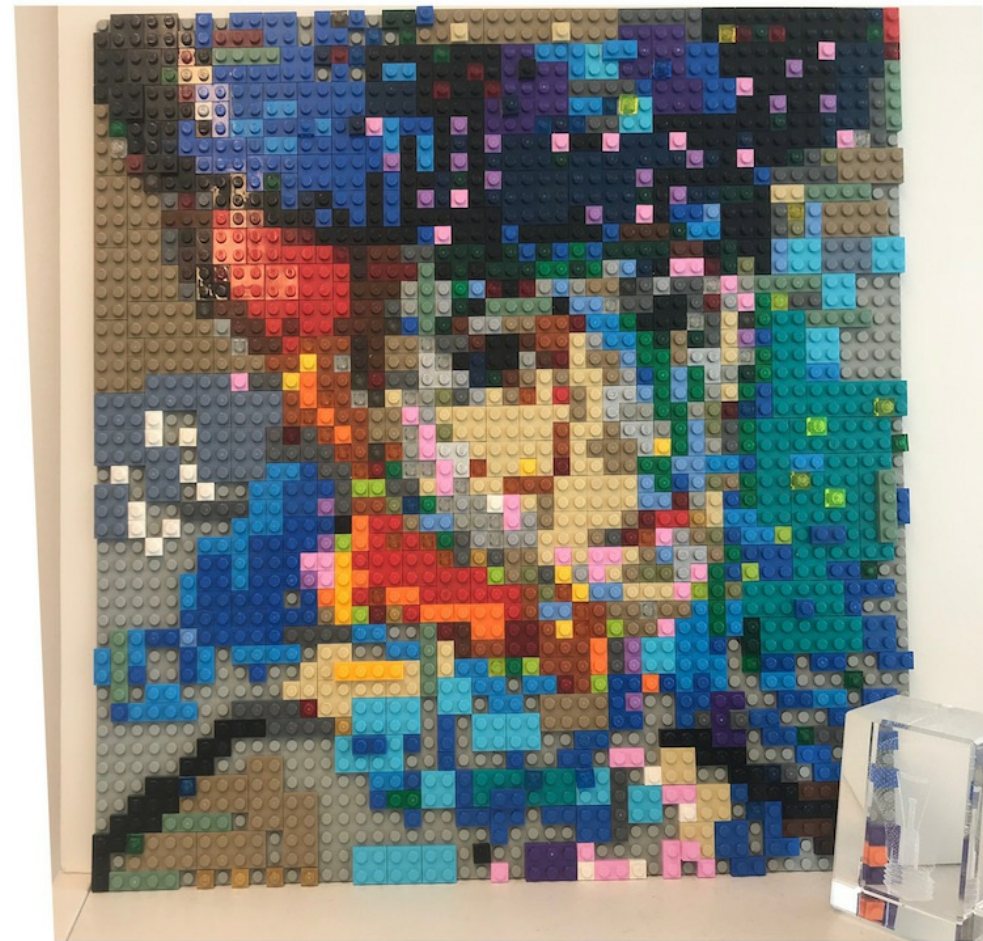
San Francisco Museum of Modern Art



1935



1935



1995



2016



Really big

- 170,000 square feet of gallery space
- Largest modern & contemporary art museum in the US
- 4 miles to walk through every gallery!
- 1,219,000 visitors in FY2017, dozens of exhibitions

Complicated

- Many dimensions of small data
 - Tickets, memberships, donations
 - Store, restaurants, garage
 - visitor feedback
 - web site visits
 - art collection data
 - general ledger

Limited resources

- Nonprofit
- \$65M budget, most of that supporting exhibitions & daily operations
- Rely 40% on earned revenue from visitors
- ... and 60% on contributions and endowment (<1% from government)

Where I come in

- I manage the budget and need to understand what's going on with financial impact
- Lots of data that could help us operate better and achieve more of our mission
 - *Make the art for our time a vital and meaningful part of public life*

R @ SFMOMA

- Excel just couldn't do what I needed
- Flexibility to deal with data from 1kb to 300MB consistently
- Quick exploratory data analysis with tidyverse
 - Important tool to help us figure out how to operate the new museum best

Example: Timed Tickets

- To avoid overcrowding in popular shows, we sometimes use "timed tickets."
- Produces 3 time stamps:
 - Visitor might buy ticket night before
 - Ticket for 11am entry
 - Ticket is scanned at 11:10am.

Order time → ticket time → scan time

Magritte @ SFMOMA



EXHIBITION

René Magritte

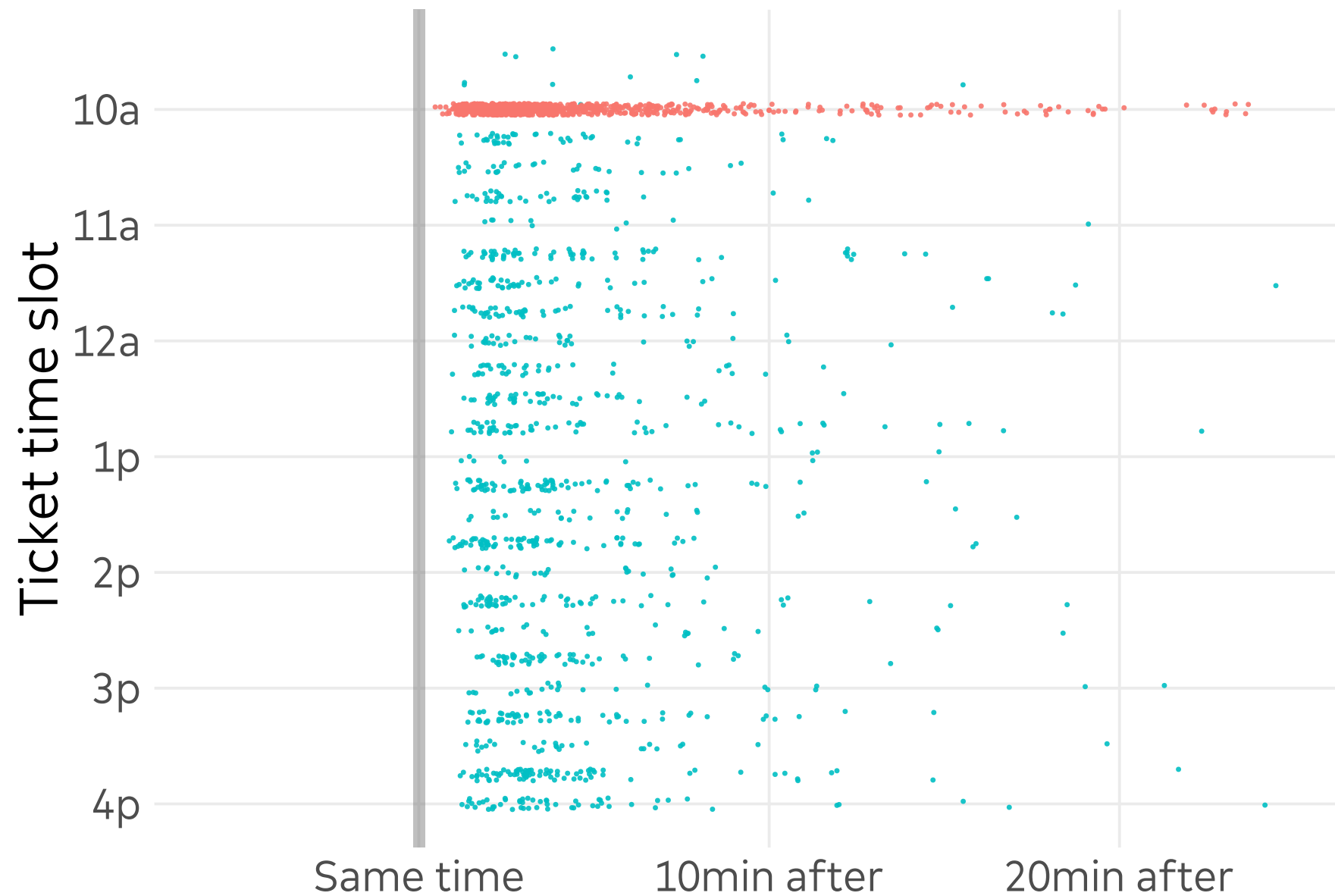
The Fifth Season

May 19–October 28, 2018

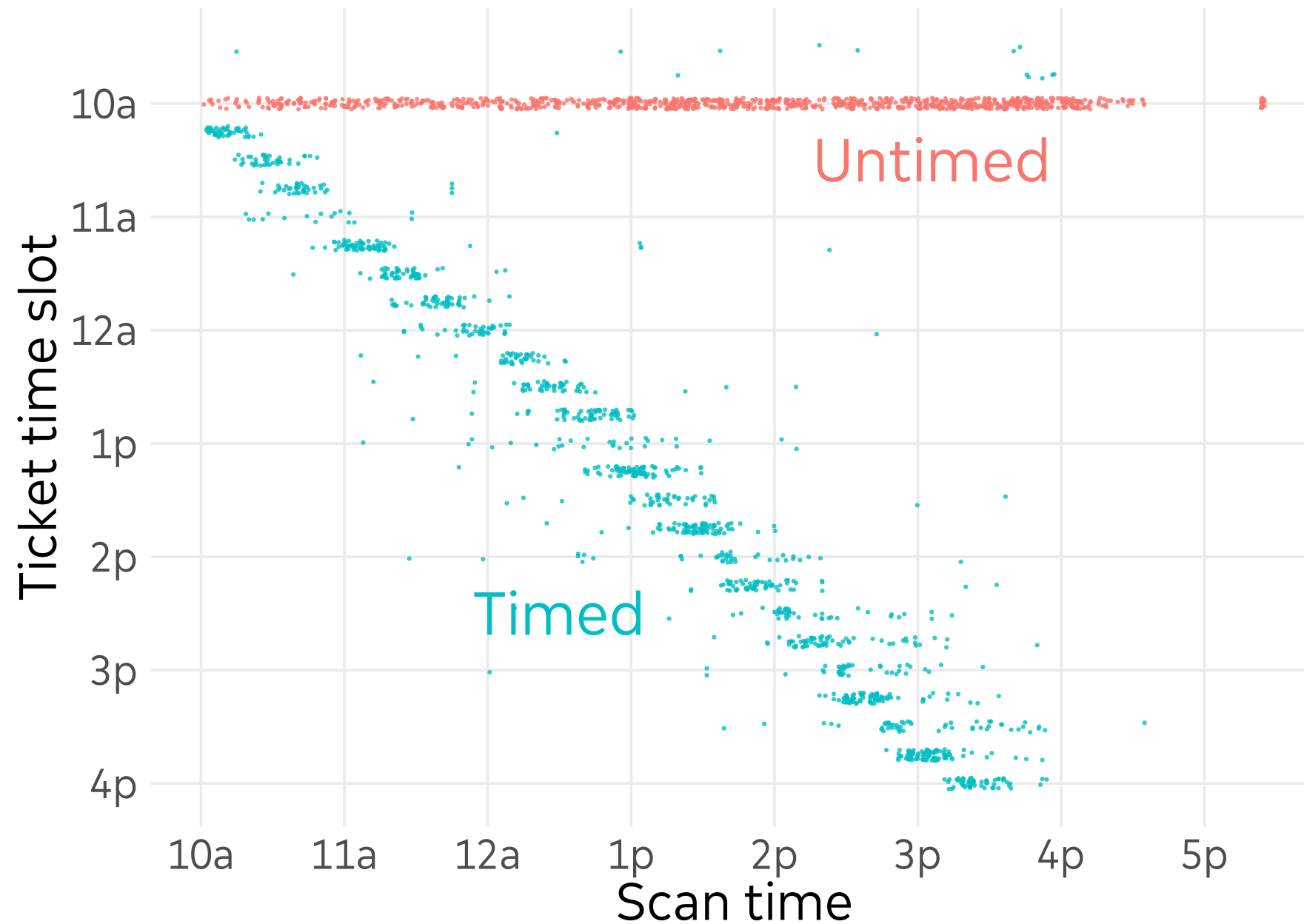
Time from order to scan



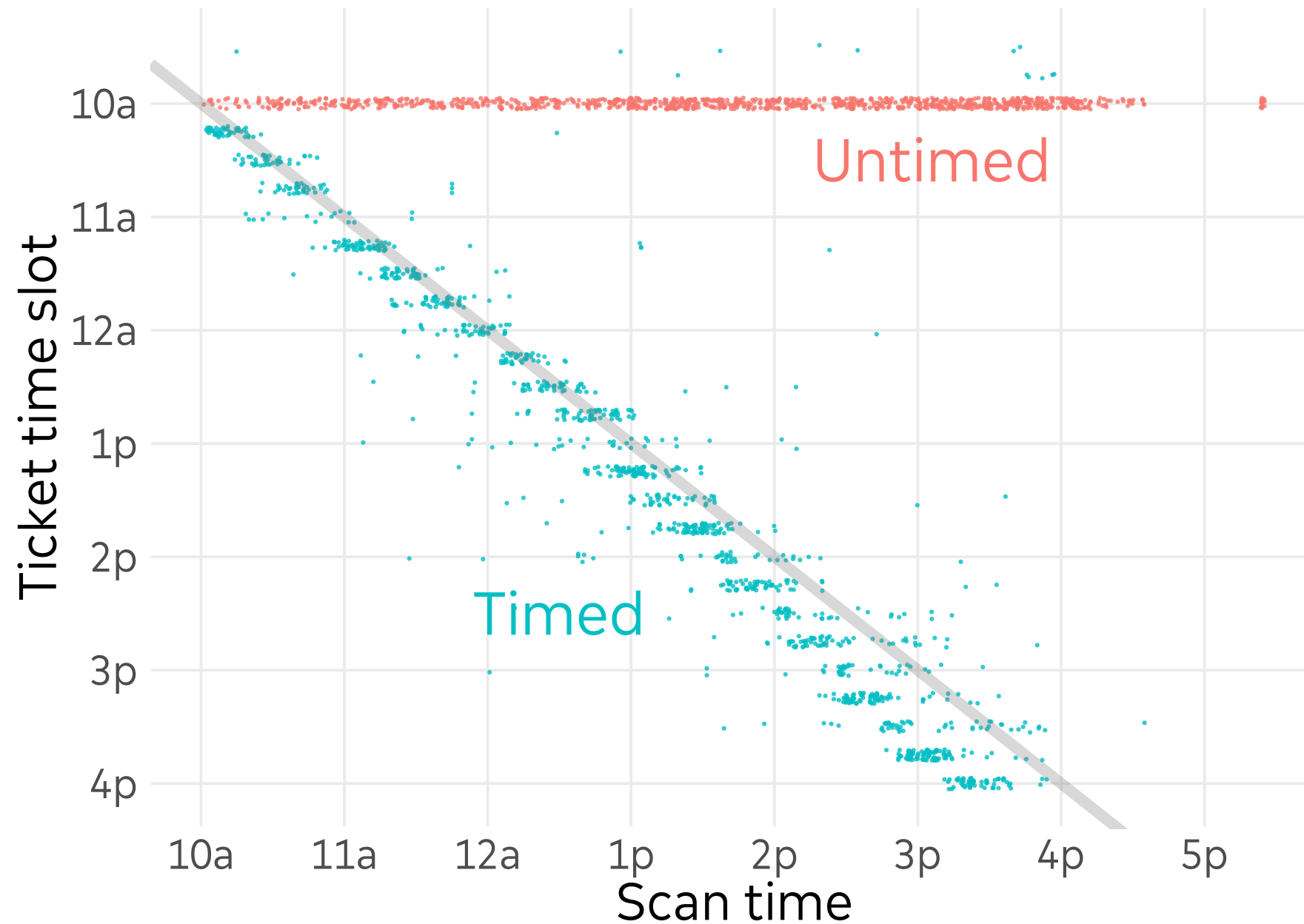
Time from order to scan



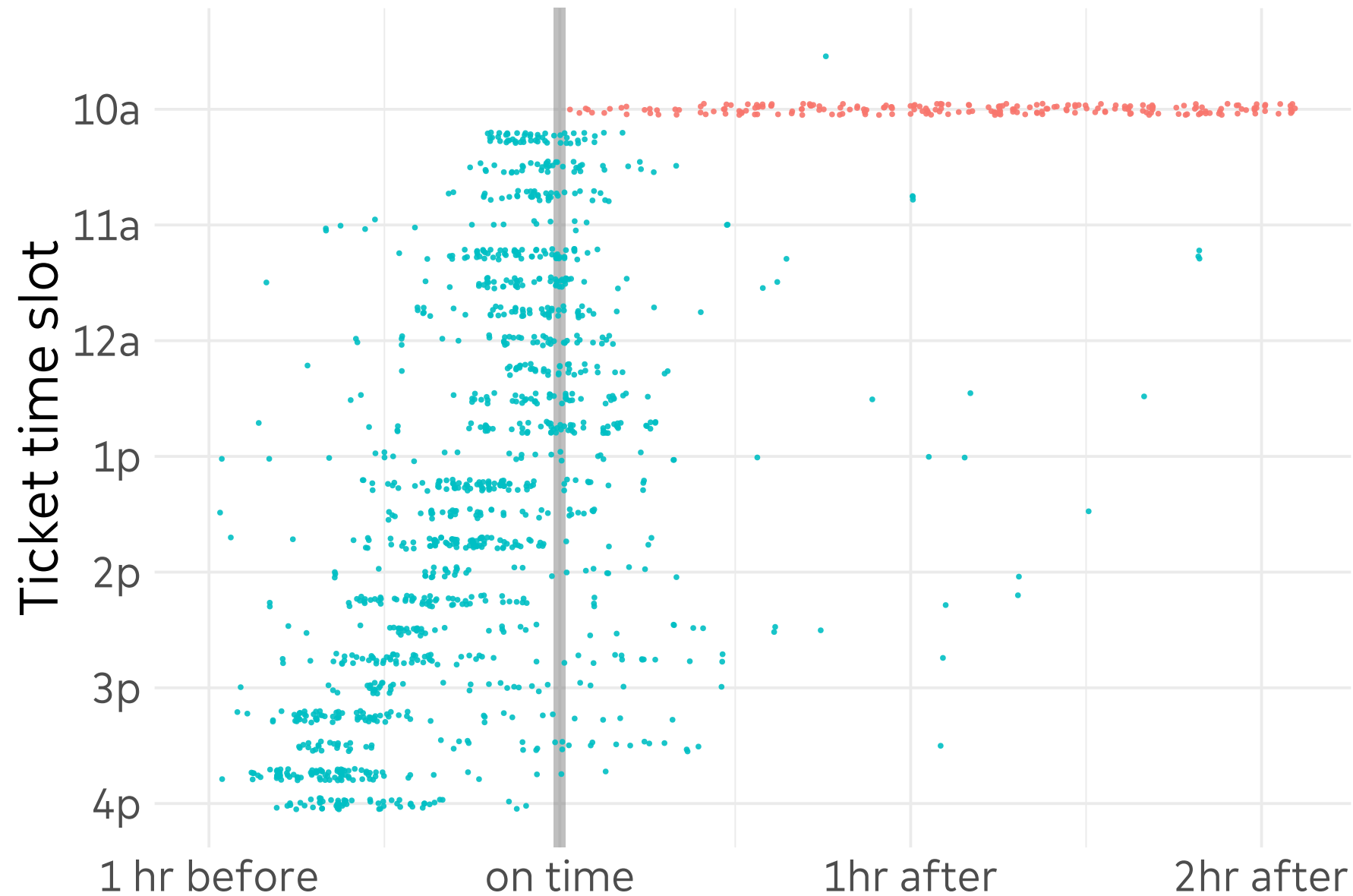
Ticket time vs. scan time



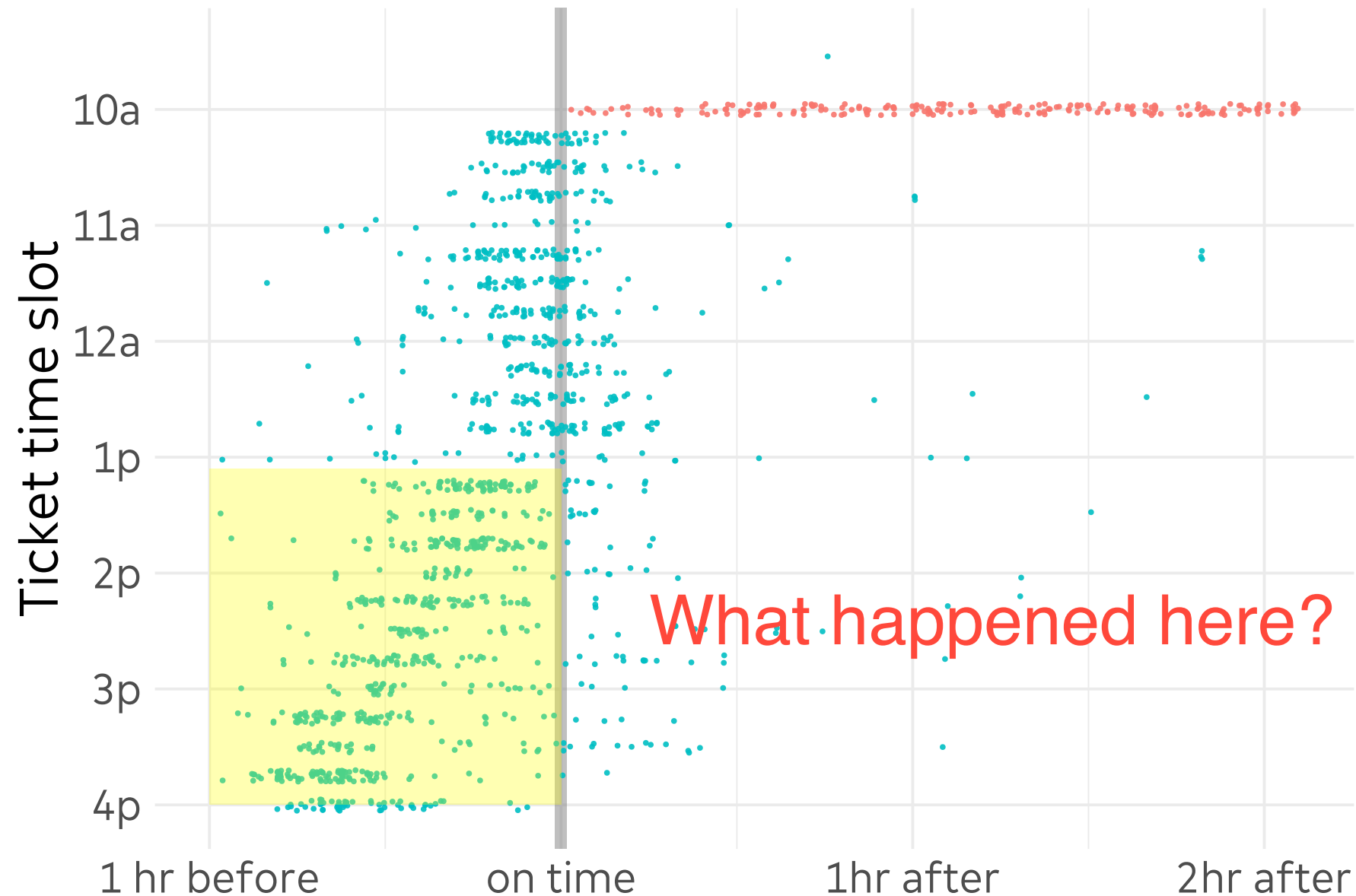
Ticket time vs. scan time



Time from ticket to scan



Time from ticket to scan



Timed tickets

- Unexpected behavior: Visitors assigned and admitted into future time slots
 - Why? How?
 - Adjust policy to make sure timed ticketing is achieving its purpose

Magritte @ SFMOMA



Next steps

- Develop data strategy, build internal skills
- Integrate data sources better and improve internal data communication
- Future projects:
 - automating attendance projections
 - using ML to analyze member churn
 - add'l dimensions of visitor behavior

Wanna help? Let me know!

Questions?

Thanks!

Jon Spring
jspring@sfmoma.org
@justthespring

Slides created with the R package **xaringan** using
xaringanthemer and **SFMOMA Text**