



# ARIZONA

— DEPARTMENT OF —

## HEALTH SERVICES

### 10-year Journey Toward Automating Manual Deduplication

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# ARIZONA

**ASIIS** • ARIZONA STATE IMMUNIZATION INFORMATION SYSTEM

- State Mandate: 1998
- Registry developed & hosted by STC

SITES REPORTING

**~4,700**

Active reporting sites

HL7 REPORTERS

**~4,100**

Total HL7 interfaces

BI-DIRECTIONAL HL7

**~3,600**

Two-way reporters

VFC PROVIDERS

**~670**

Vaccines for Children

PUBLIC VACCINES SHIPPED '25

**1.21M**

Doses shipped in 2025

PUBLIC VACCINES ADMIN. '25

**1.20M**

Doses administered in 2025

≈ APPROXIMATE FIGURES

★ ARIZONA – 2025



# ASIIS

# MARCH 2026

## REGISTRY STATISTICS OVERVIEW

MASTER  
PATIENT RECORDS

**12,337,328**

RESERVE  
PATIENT RECORDS

**56,292,447**

MASTER  
VACCINATION RECORDS

**144,983,705**

RESERVE  
VACCINATION RECORDS

**229,458,764**

TOTAL VACCINATION  
RECORDS

**374.4M**

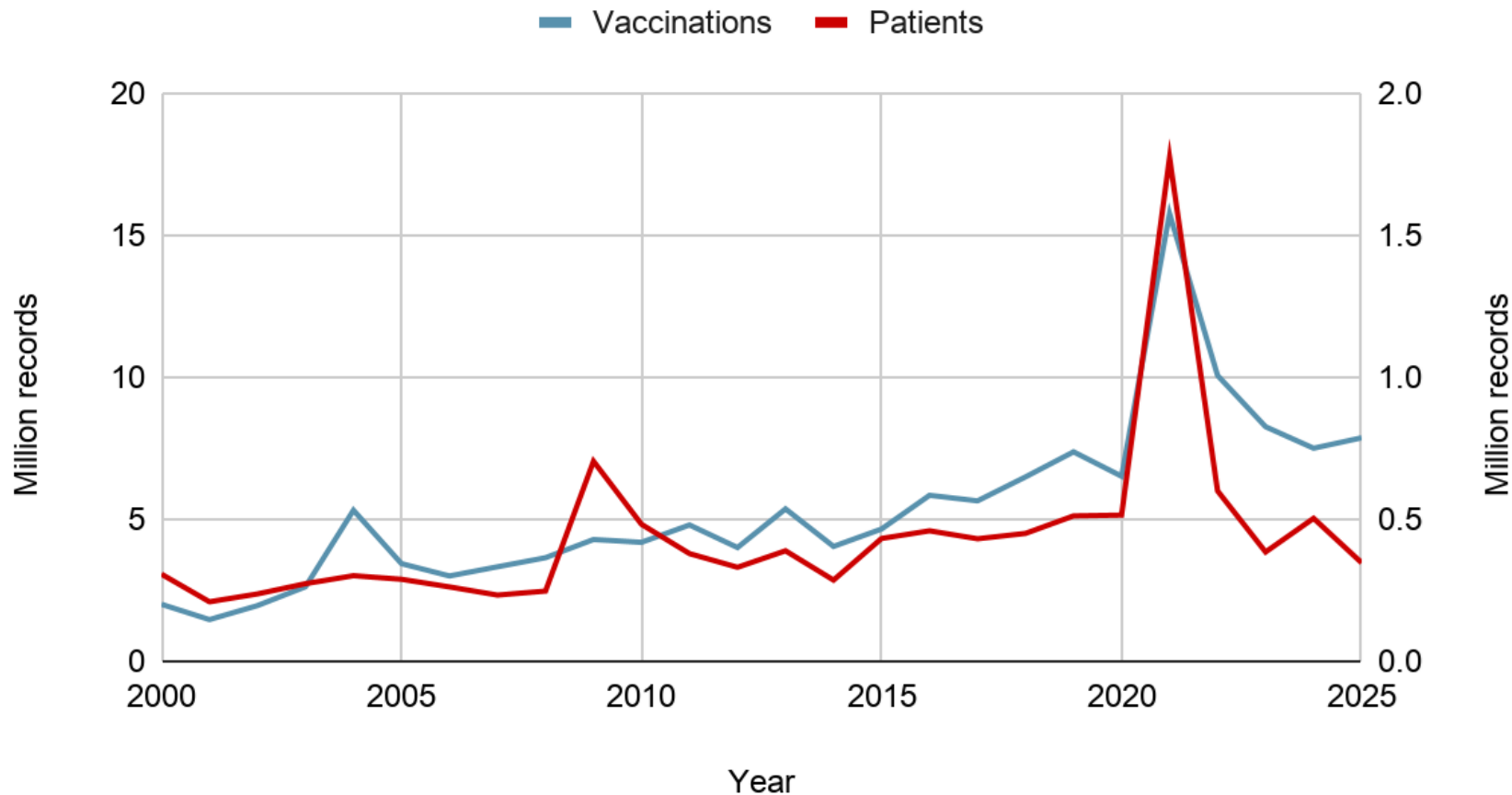
COMBINED ENTRIES



# IT ALL STARTED WHEN...



# Vaccinations and Patients



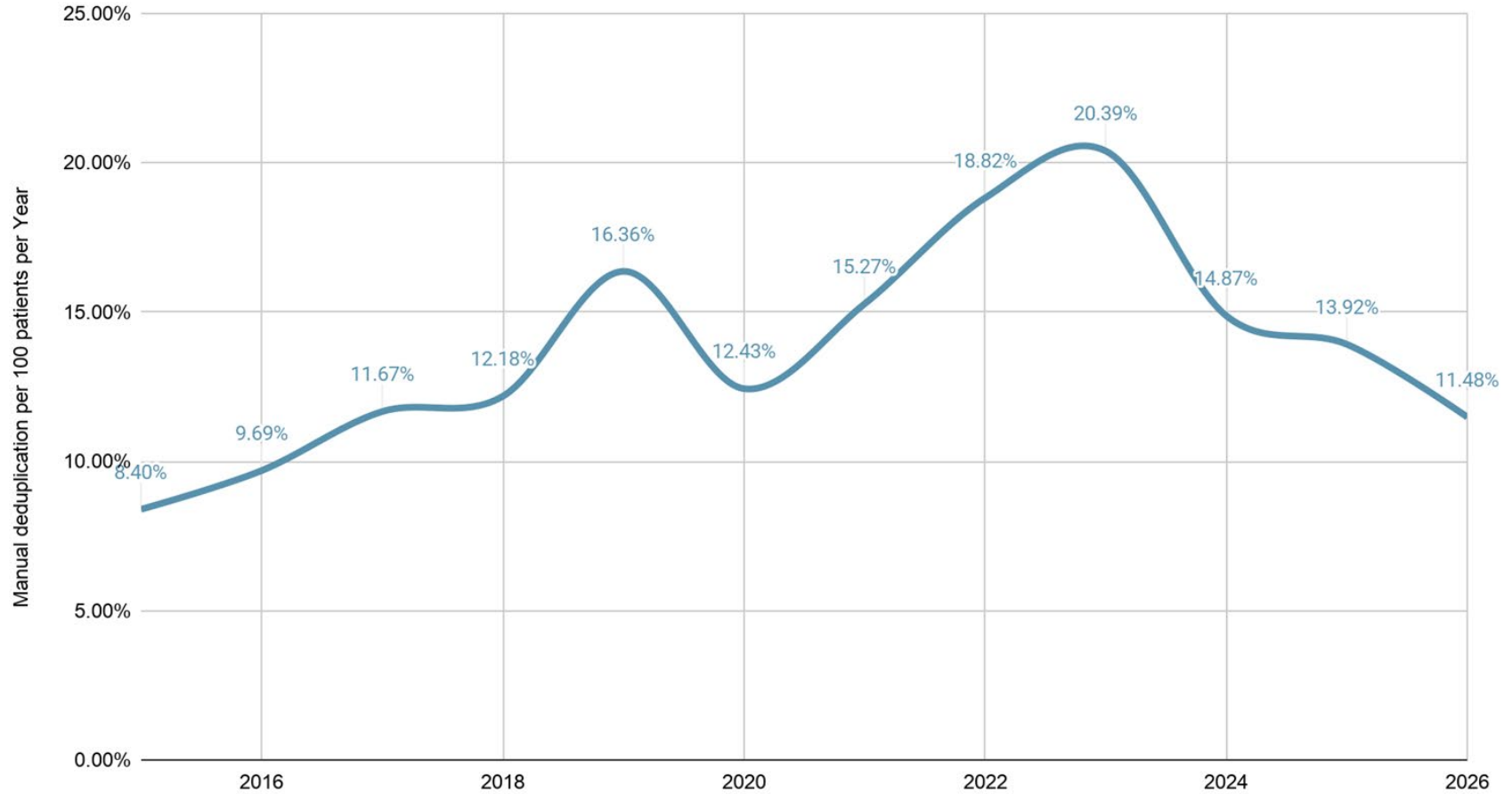
The IIS are designed to minimize the number of duplicate patient and vaccination records within it.

But, wait...what is manual deduplication?

**The number of records coming in daily for “Manual Deduplication” is enormous!**



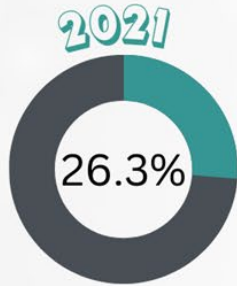
## Manual Deduplication - Over the Years



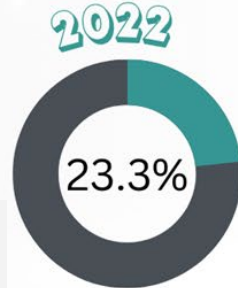
# Processing the manual deduplication queue by ADHS Staff

2013  
157,080  
(avg. 655 per day)

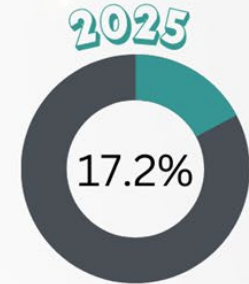
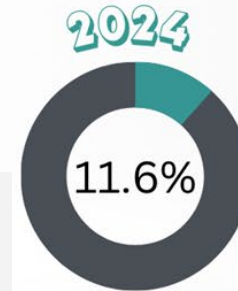
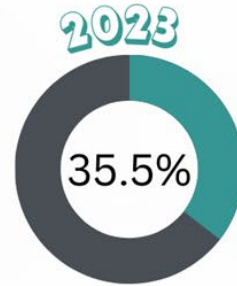
2014  
133,983  
(avg. 558 per day)



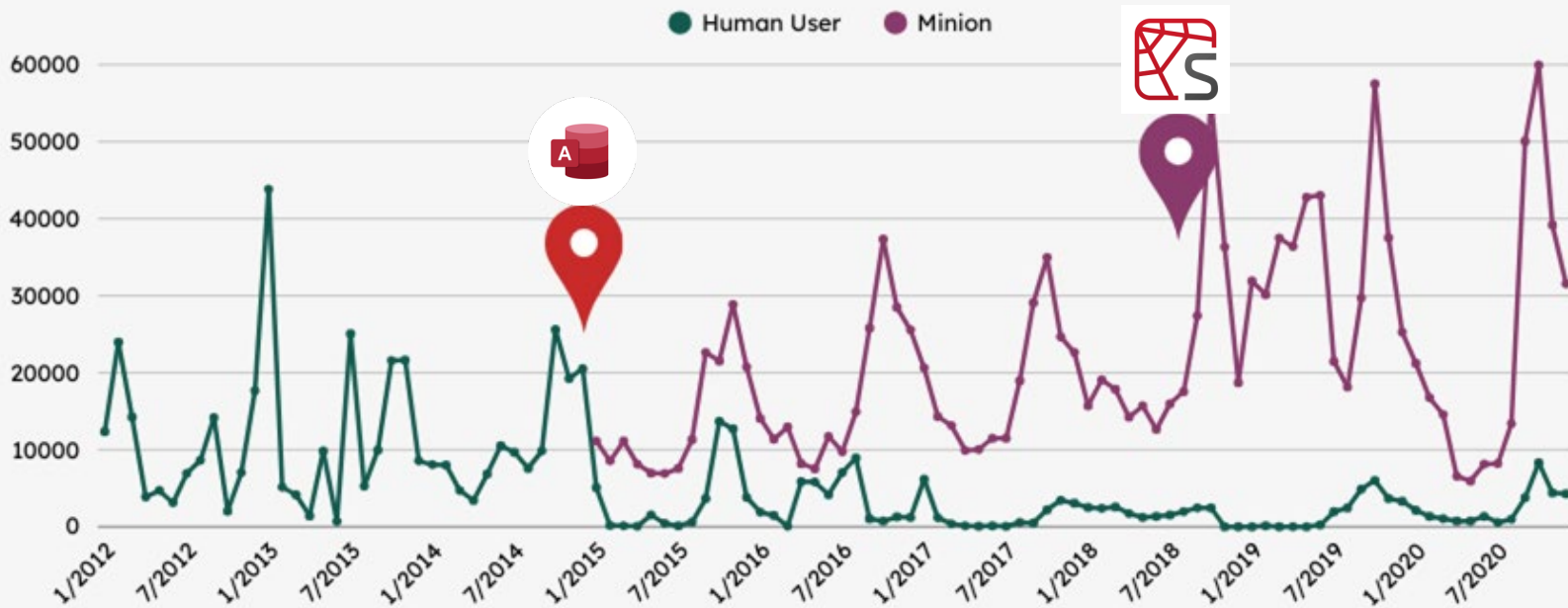
2021  
**368,043** out of 1,397,714  
or **26.3%**  
\*instead of 5,824  
\*1534 per day



2022  
**230,360** out of 989,204  
or **23.3%**  
\*instead of 4,122  
\*960 per day

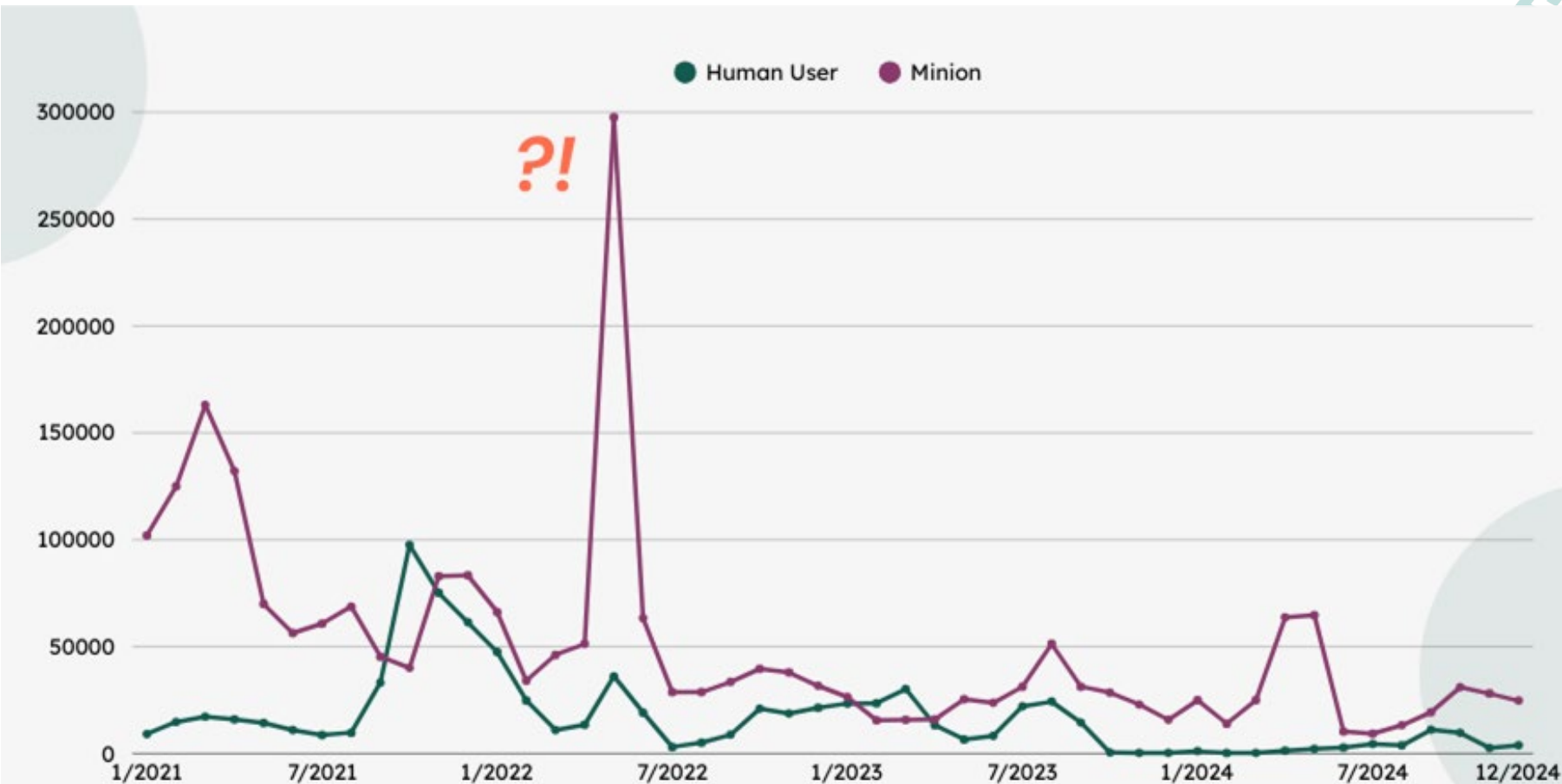


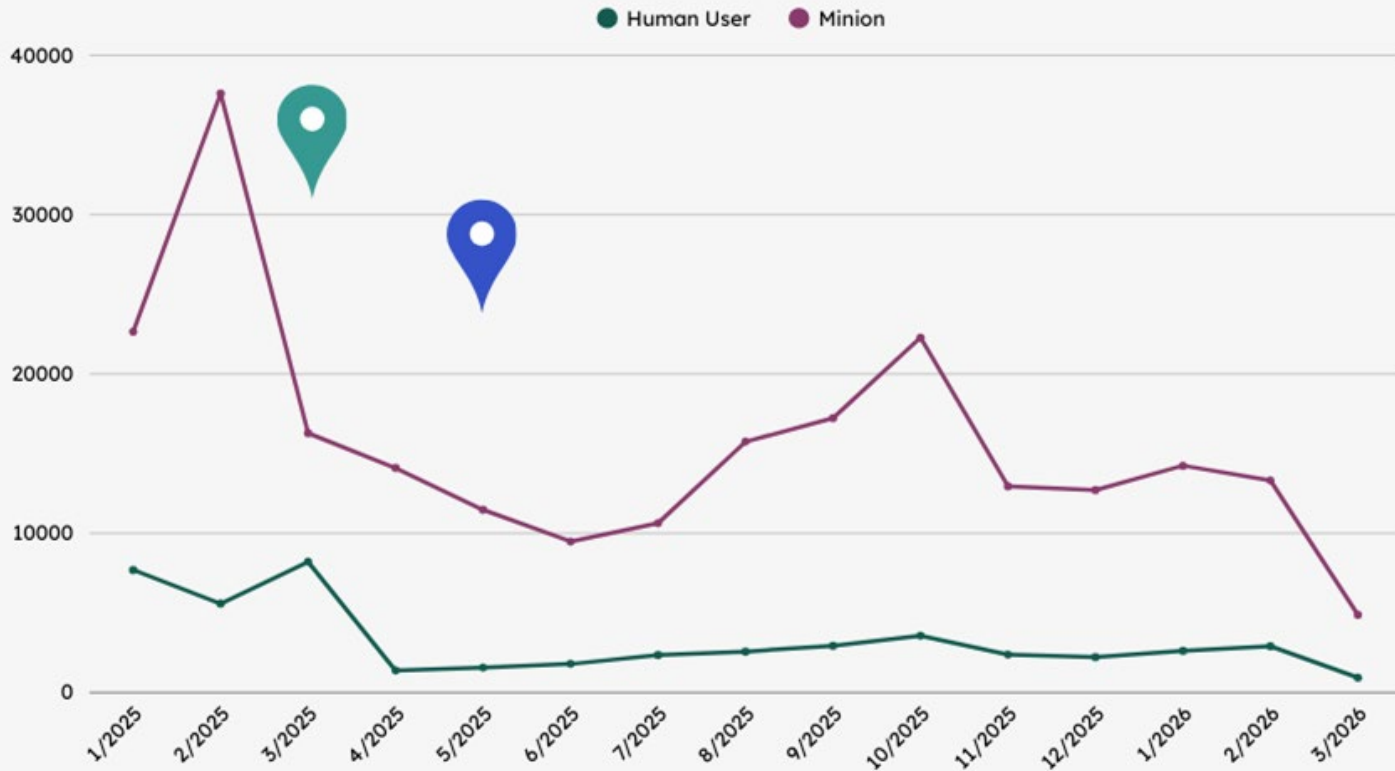
# THE JOURNEY



📍 Automatic Manual Deduplication - "Minion"

📍 From Access to Python





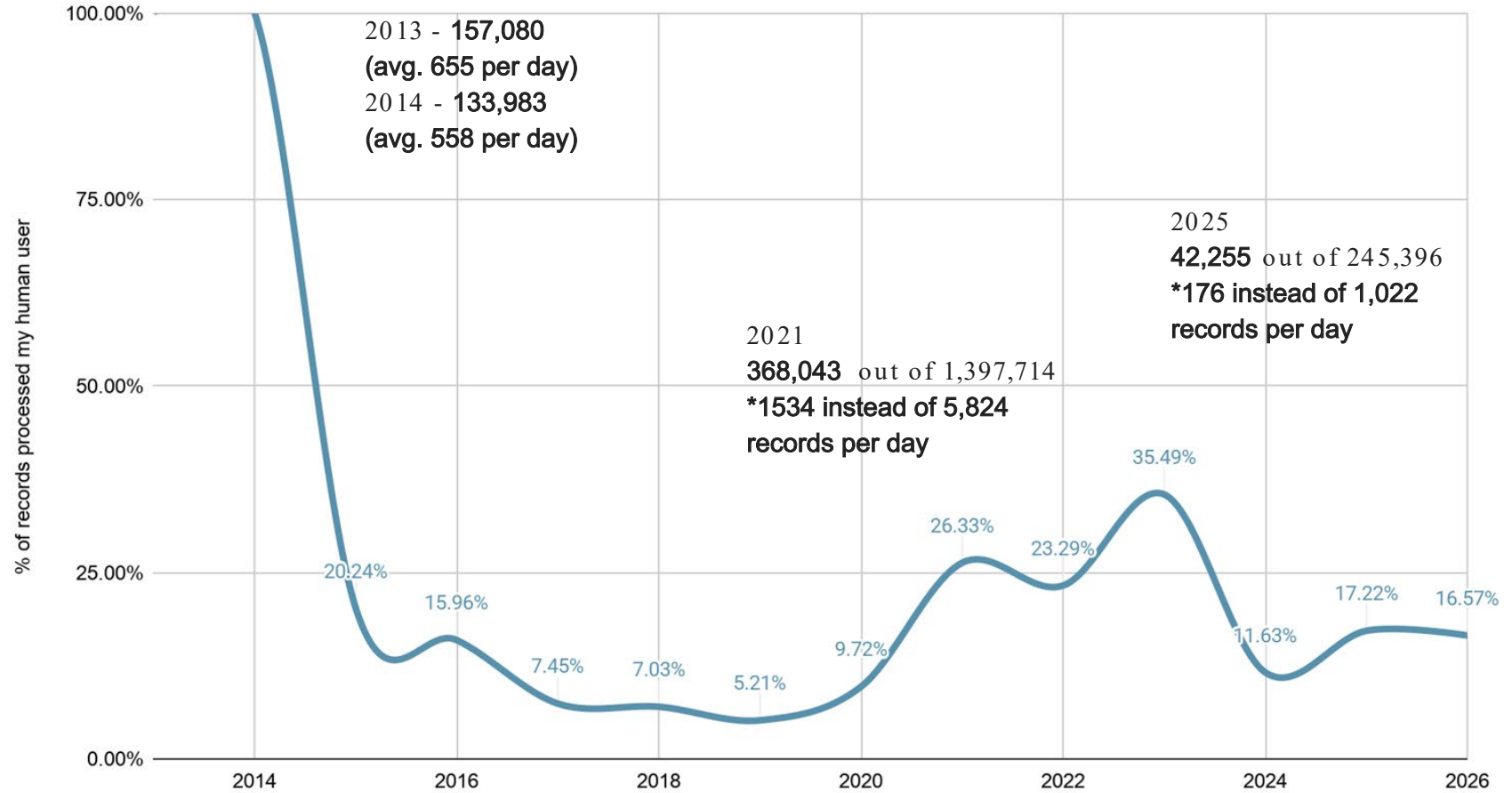
📍 Scheduled runs & sophisticated evaluation algorithm enhanced by Soundex

📍 Shared with Puerto Rico





# Processing the manual deduplication queue by ADHS staff

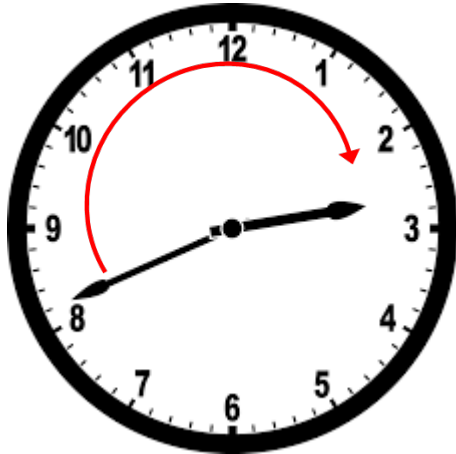


# Processing the manual deduplication queue by ADHS Staff

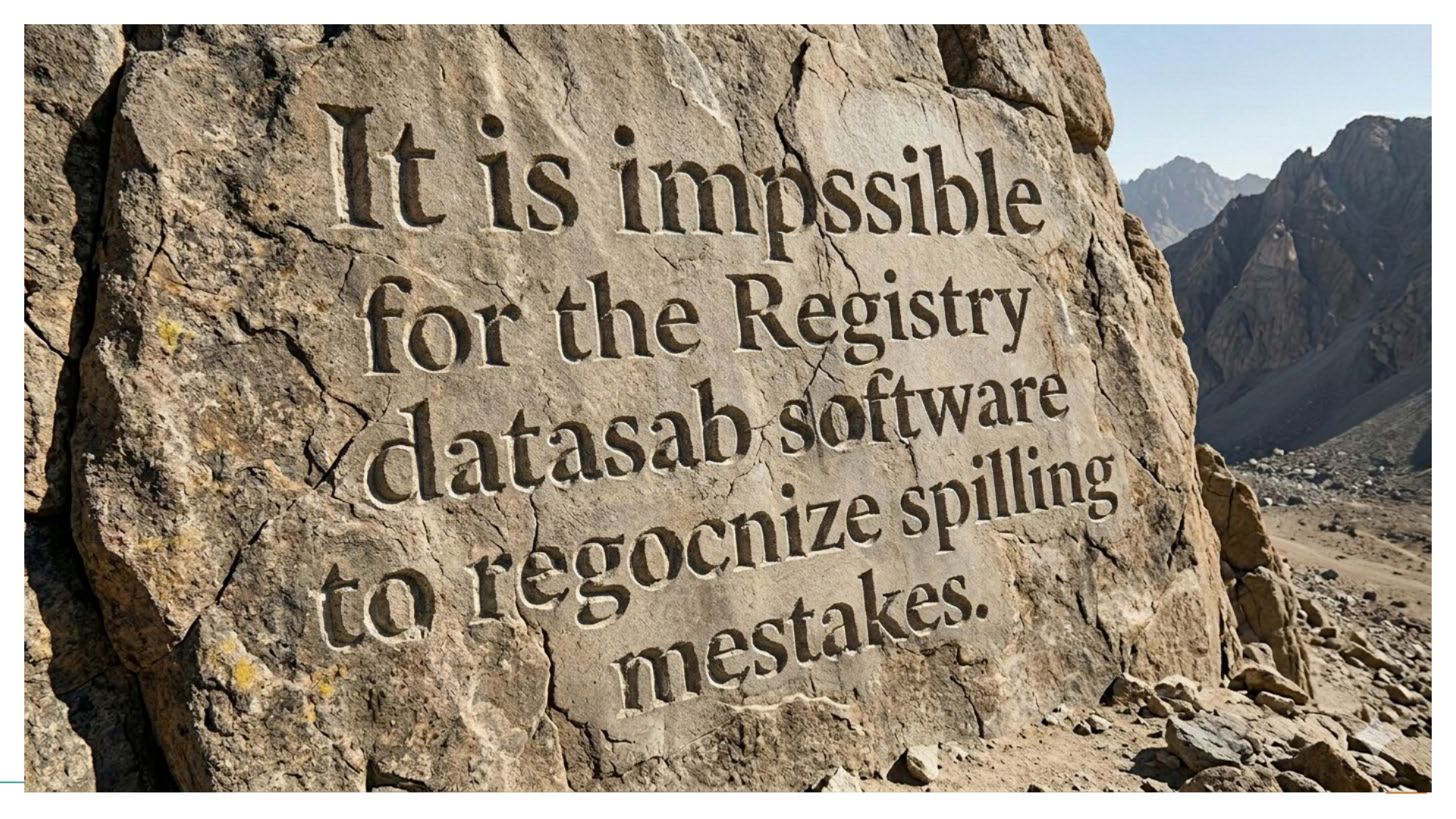
2013 - 157,080 (655 per day)

2014 - 133,983 (558 per day)

2021 - 368,043 out of 1,397,714  
\*5,824 vs. 1,534 per day



2025 - 42,255 out of 245,396  
\*1,022 vs. 176 per day

A large, weathered rock face in a mountainous landscape. The rock is light brown and grey with visible cracks and some yellowish lichen. The text is carved into the rock in a bold, serif font. The background shows rugged mountains under a clear blue sky.

It is impssible  
for the Registry  
datasab software  
to regocnize spilling  
mestakes.



**ARIZONA**

2015



**DEDUPLICATION**

2025

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