

GeoMatch

Empowering migrants by using big data for better matching

Michael Hotard (IPL), Angie Delevoye (IPL), Tugrul Ejder (COA), Sarah Pennington de Jongh (COA)

Wat is waar over asielopvang?

A

Municipalities in the Netherlands have the task of housing 35.000 permit holders every year

B

Municipalities in the Netherlands have the task of housing 15.000 permit holders every year

Wat is waar over asielopvang?

A

Municipalities in the Netherlands have the task of housing 35,000 permit holders every year

B

Municipalities in the Netherlands have the task of housing 15,000 permit holders every year

Wat is waar over asielopvang?

A

After 7 years, 65% of people with an asylum background in the Netherlands have a job

B

After 7 years, 45% of people with an asylum background in the Netherlands have a job

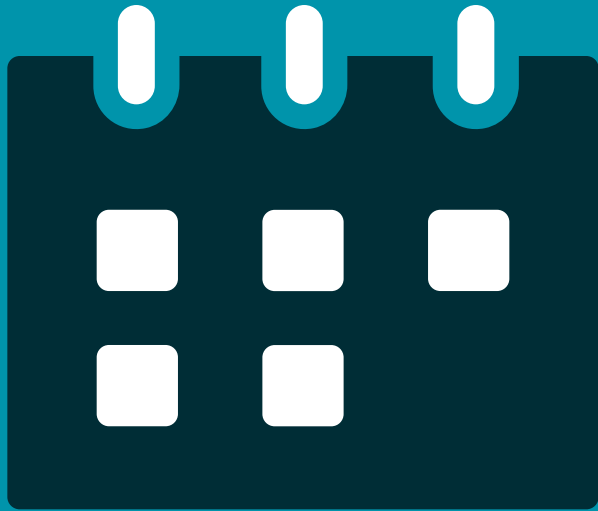
Wat is waar over asielopvang?

A

After 7 years, 65% of people
with an asylum background in
the Netherlands have a job

B

After 7 years, 45% of people
with an asylum background in
the Netherlands have a job



Program

- Matching in the Dutch context
 - *Discussion round 1*
- GeoMatch (including demo)
 - *Discussion round 2*

T.C.
KAMETGÂH SENE

Çankırı

Merkez

Merkez

Yeni Mahalle



: Abdullah Ejder

: Yusuf

: Hacer

: Orta

: 3/5/939

: Evli

: Hollanda Fabrika işçisi

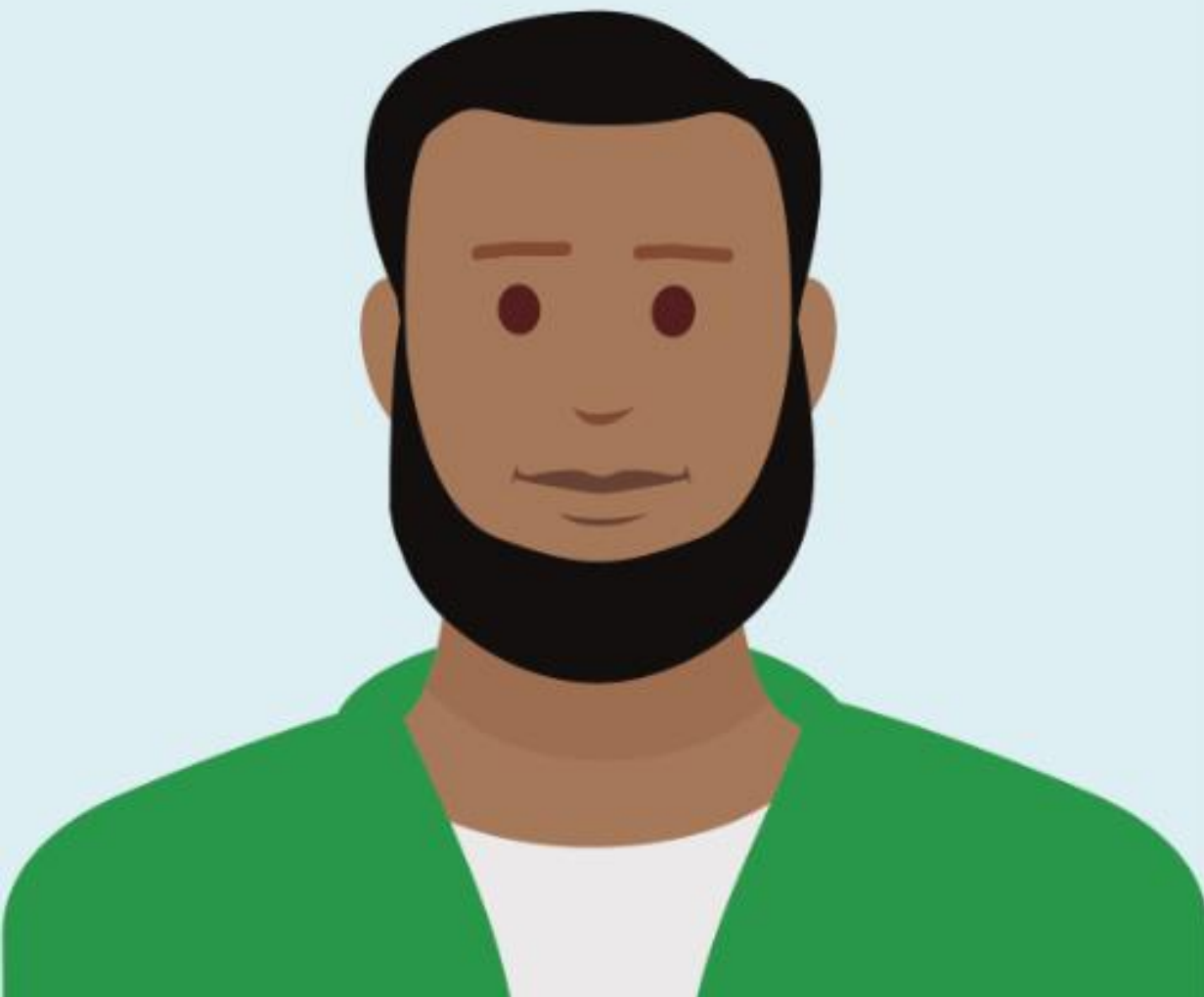
A new beginning

Matching permit holders

- The (municipal) task assignment.
- 35.000 permit holders

But where are the best opportunities to build a new life and contribute to society?





**I am Ahmed and I
want to work in the
Netherlands**



**I'm Peter from COA
and I want to help
Ahmed**

**I am Claire from
COA and I do the
linking for Ahmed**





**I am Nathalie from
Rotterdam and I
need Ahmed**

GeoMatch User Journey



STEP 1

During his screening and matching interview, **Ahmed tells Peter about his background, connections, and goals.**



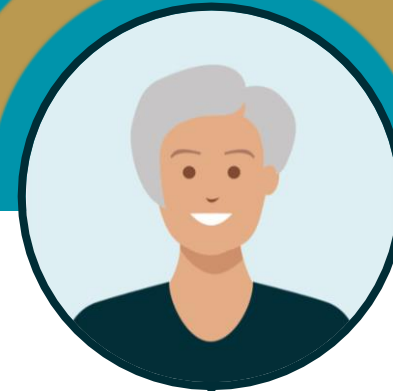
STEP 2

Peter recommends up to three regions based on his conversation with Ahmed.



STEP 3

GeoMatch provides advice for three regions based on its predictive models. Peter chooses the regions to recommend to Claire.



STEP 4

Claire uses the recommendations to choose the municipality where Ahmed will be placed.



STEP 5

Nathalie welcomes Ahmed at his new location. It's a strong fit because it was chosen using Ahmed's input and data-driven insights.



Let's discuss! Round 1

In which country do you work?

Is there a mechanism for matching migrants to parts of the country?

How do you measure / track if the matching is successful?

What is your biggest dream for your country?



GeoMatch - introduction

HOW LOCATION MATTERS FOR INTEGRATION:

The Power of Place



Where immigrants first arrive plays a critical role in determining their chances for integration.



Administrative data can provide insights into the locations where immigrants are most likely to integrate successfully.

Consider Switzerland



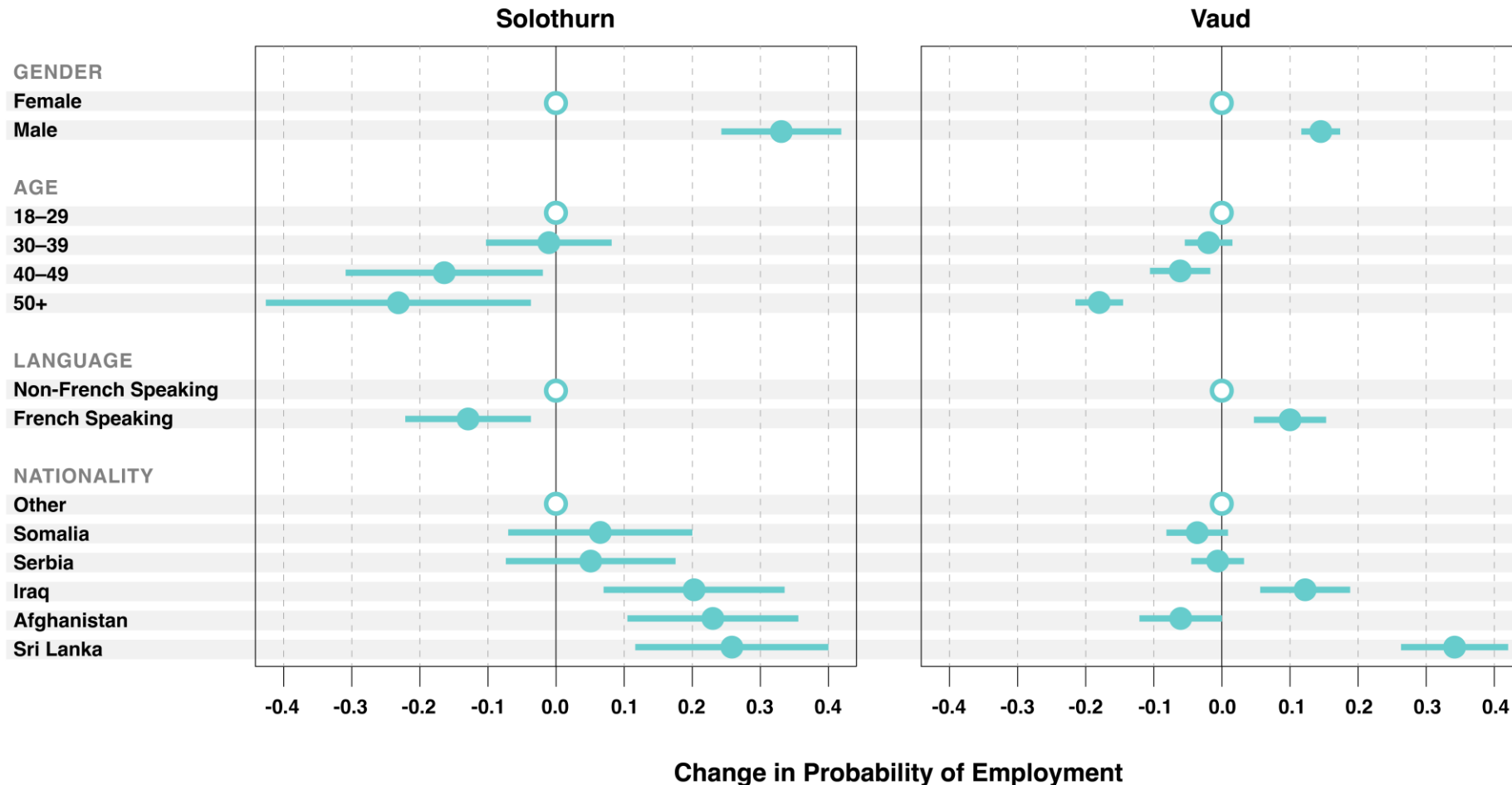
Solothurn



Vaud

Synergies Between People and Places

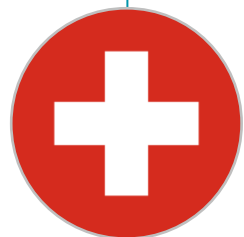
(Refugee employment, Switzerland, 1999-2013)



Current Impact

- 12,000+ matches completed
- 85% reduction in staff time to make placement decision
- Projected 20-40% improvement in employment outcomes

Switzerland



Launched 2020

USA



Launched 2023

Netherlands



Launched 2024

Canada



Expected Launch
2025
(First immigrant-user
version)

Mexico



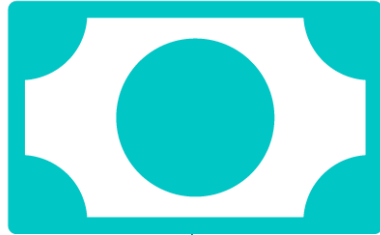
Scoping

Features of the Algorithmic Approach



Personalized

Provides data-driven recommendation for each family based on their own unique characteristics and requirements



Cost-Effective

Designed to serve many clients without increasing costs, making it ideal for scaling impact



Secure and Compliant

Can be designed to safeguard sensitive data and comply with legal requirements.



Transparent

Makes data more visible, providing insights on how systems work and where they can improve



Demo - GeoMatch Web
Application (Originally
implemented in the United
States)

Simplifying a Complicated Process

The process for choosing the best location is **complicated**

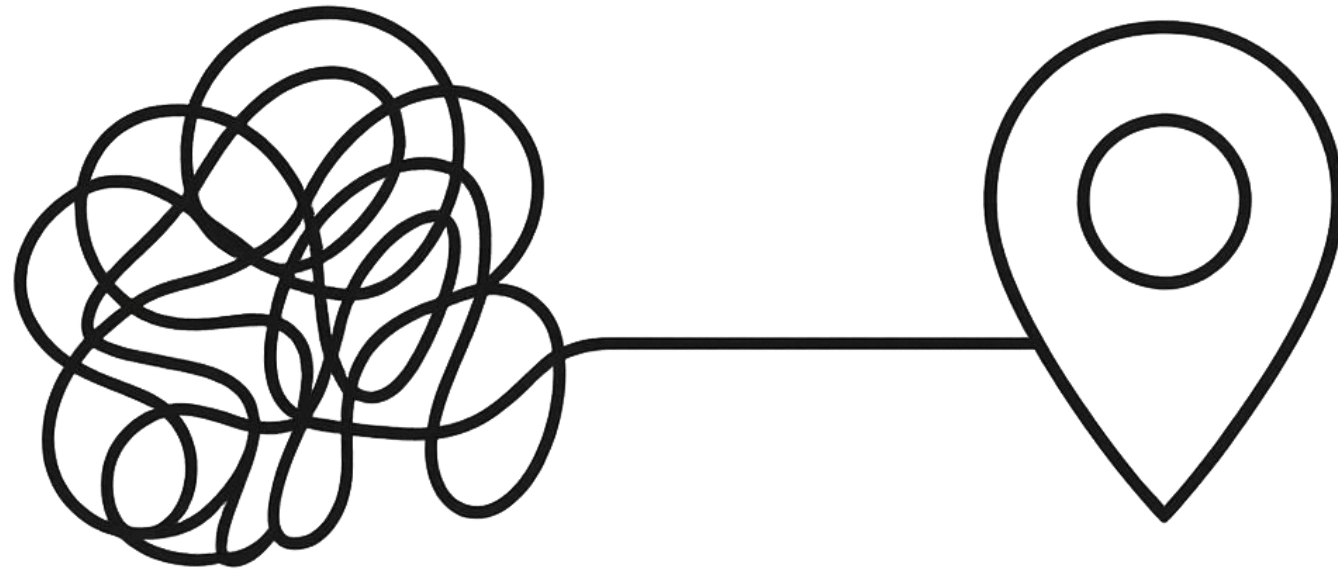
Capacity quotas

Medical issues

Family size

Changing locations

Shifting policies



Learning from Users

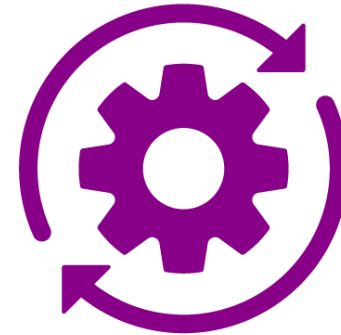
Understanding the user is key to creating a tool that brings value to their process



Focus Groups



Surveys



User Testing



Let's discuss! Round 2

What is your first reaction to GeoMatch?

Do you use data to do matching between migrant and location and if yes: how?

In what way are migrants involved in this choice?


Are there any plans for using AI?





Thank you for your attention


Let's meet! mhotard@stanford.edu &
tugrulejder@coa.nl


GeoMatch US tool demo


 **GeoMatch**
Connecting people to places

 Generate Recommendations

 Affiliates: Activate / Deactivate

 Placement History

 ZIP FILE

 CAPACITY REPORT
ARRIVALS-BY-AFFILIATE-AND-SITE
IRIS STANDARD REPORT

UPLOAD TO GEOMATCH

Please select the last three weeks in the GeoMatch export date picker.
If you are uploading returned cases, please move the start date back to include the dates that these cases were created.
To ensure up-to-date data, please always export from IRIS immediately before using GeoMatch.

The end date of the report should be today.

The start date will determine how many Assured-Not-Arrived cases are taken into account by GeoMatch. For example, setting the start date a year in the past will count all Assured-Not-Arrived cases that were assured in the past year.

ADVANCED OPTIONS

GeoMatch US tool demo

Generate Recommendations

Affiliates: Activate / Deactivate

Placement History

Placement Batch Confirmation

Bio CreateDate Range: 4/7/2025 - 4/14/2025

Assured Unarrived Start Date: 10/31/2022

GENERATE RECOMMENDATIONS

Case Number	Remove	IRIS Link	Case Size	Type	Case Pool	Medical Condition	Medical Comments	IRIS US Tie Info	Other Hand Constraints	Largest Household	Singles Constraint Applies	SPF Constraint Applies	Link	Same Housing	IRIS Xref Info	Singles Case	SPF Case	Urgency	Sex
> XX-82500		7141f43	6	SIV	Free				EDIT	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
> XX-83816		1f1b536	6	REF	Free				EDIT	8	<input type="checkbox"/>	<input type="checkbox"/>							
> XX-85483		3aab0bc	2	REF	Free												Yes		

Placement Batch Confirmation

Bio CreateDate Range: 4/7/2025 - 4/14/2025

Assured Unarrived Start Date: 10/31/2022

GENERATE RECOMMENDATIONS

Case Number	se	SPF Case	Urgency	Sex	Relationship	Age when Allocated	Birthday	Native Languages	All Languages	Nationality	Ethnicity	Religion
^ XX-82500												
			LV2	Male	Foster Daughter	58	1966-11-14	Azerbaijani (Azeri)	None	Philippines	Tajik	Moslem Ismaici
			LV2	Male	Wife	31	1993-12-09	Vietnamese	Vietnamese	Philippines	Tajik	Moslem Ismaici
			LV2	Male	Grand Daughter	23	2002-01-26	Kirundi	Kirundi	Philippines	Tajik	Moslem Ismaici
			LV2	Female	Principal Applicant	20	2004-12-09	Vietnamese;Kinyarwar	Vietnamese;Kinyarwar	Philippines	Tajik	Moslem Ismaici
			LV2	Female	Son	18	2006-12-17	Vietnamese	Vietnamese	Philippines	Tajik	Moslem Ismaici
			LV2	Male	Husband	0	2024-12-26	Vietnamese;Kachin - h	Vietnamese	Philippines	Tajik	Moslem Ismaici
> XX-83816												
> XX-85483		Yes										

GeoMatch US tool demo

http://localhost:8000/dashboard/history/j0md8739dykovbgd/

USER MANUAL | UDAYJ@STANFORD.EDU

Placement Batch GeoMatch Results												EXPORT PLACEMENT CSV
Bio CreateDate Range: 4/7/2025 - 4/14/2025 Assured Unarrived Start Date: 10/31/2022												
Case Number	IRIS Link	Case Size	Type	Case Pool	Medical Condition	Medical Comments	IRIS USTie Info	Affiliates Matching Hard Constraints	GeoMatch Recommendation	Decision	Other Hard Constraints	
^ XX-82500	7141f43c	6	SIV	Free	<i>i</i>	<i>i</i>	<i>i</i>	0 / 32				VIEW
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
^ XX-83816	1f1b536f	6	REF	Free	<i>i</i>	<i>i</i>		4 / 32	ME-Location 29 (Rank: 10th)			VIEW
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						
^ XX-85483	3eab0bc	2	REF	Free	<i>i</i>	<i>i</i>						
					Fake Condi	Fake Comm						
					Fake Condi	Fake Comm						

GeoMatch US tool demo

GeoMatch

USER MANUAL | ADELEVOYE@STANFORD.EDU

Link Group XX-83816: Matching Affiliates

VIEW SOFT CONSTRAINTS

Affiliate	Adjusted Affiliate REF Capacity	Impact Score	Total Misses	Affiliate Capacity	Nationality	Ethnicity	Language	Requires PC Management	Largest Household	Single Parent Family	Single Females	Single Males	Requires Housing Disa
				8 REF				(No)	(8)	(No)	(No)	(No)	(No)
<input type="radio"/> TN-Location 12	43	100.00 (1st)	2		✗	✗			0				
<input type="radio"/> VT-Location 2	27	84.14 (2nd)	3		✗	✗	✗		0				
<input type="radio"/> MD-Location 4	0	57.00 (3rd)	2	✗		✗	✗		0				
<input type="radio"/> NJ-Location 25	0	51.52 (4th)	2	✗	✗	✗			0				
<input type="radio"/> DC-Location 23	81	44.09 (5th)	2			✗	✗		0				
<input type="radio"/> NY-Location 20	175	44.07 (6th)	2			✗	✗		0				
<input type="radio"/> TX-Location 6	0	41.30 (7th)	2	✗		✗			✗				
<input type="radio"/> ME-	0	39.40	0			✗	✗		✗				

CLOSE

CONFIRM SD-LOCATION 17

GeoMatch US tool demo

GeoMatch

USER MANUAL | ADELEVOYE@STANFORD.EDU

Link Group XX-54743: Matching Affiliates

VUEW SOFT CONSTRAINTS

Affiliate	Adjusted Affiliate REF Capacity	Impact Score	Total Misses	Affiliate Capacity	Nationality	Ethnicity	Language	Requires PC Management	Largest Household	Single Parent Family	Single Females	Single Males	Requires Hou Disa
				5 REF				(No)	(5)	(No)	(No)	(No)	(No)
<input checked="" type="radio"/> MD-Location 4	4	100.00 (1st)	2	✗		✗	✗						
<input type="radio"/> ME-Location 29	0	86.89 (2nd)	1	✗		✗							
<input type="radio"/> NY-Location 20	92	85.52 (3rd)	2		✗	✗							
<input type="radio"/> VT-Location 2	0	80.30 (4th)	1	✗		✗							
<input type="radio"/> TN-Location 12	44	78.48 (5th)	0										
<input type="radio"/> TN-Location 26	112	30.95 (6th)	1			✗							
<input type="radio"/> NM-Location 18	236	14.25 (7th)	1			✗							

CLOSE

CONFIRM MD-LOCATION 4