

# Data Citizens with Purpose®

**Combined Arms** 



Project Insights Guide

September 15, 2022

For Better with Data

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# **Executive Summary**

# **Background**

Context

Combined Arms' mission is to unite the community to accelerate the positive impact of veterans in Texas and the US. In doing this, Combined Arms empowers Veterans to be successful civilians through community, wellness, professional, essential and entrepreneurship resources and services. They do this by partnering with 177+ non-profits (member/partner organizations) to support hundreds of thousands of Veterans transitioning out of the Armed Forces, and later in their lives. Combined Arms seeks to understand which of these partnerships and services requested from Veterans are most in demand in comparison to supply, and also aims to understand trends in successful case outcomes as they relate to partner organizations, services requested, connection time, and outreach channel.

# Scope

KPMG will use data from Salesforce, provided by Combined Arms, to perform a data-driven analysis answering the following questions:

- 1. What trends, if any, can be observed for successful or unsuccessful case outcomes and connections with data from 2017-2021, as it relates to client outreach channel (email, phone, text), service requested, partner organization, average length of time to reach client, average length of time to initiate a connection, and first connection rates.
- 2. How are client connections to partner organizations related to services requested and what is the demand vs. supply of these services?

**Approach** 













# **Data Limitations Impacting Our Analysis**

The following corrective actions improved the data quality for most of the proposed analyses:

# **Data Challenges**





#### **Quality Assurance**

Specifically, in the CA-TEXAS\_cases.csv file, the Original Resource and Original Service were often flip-flopped, but not consistently, in varying contexts with no real pattern of error.



#### Standardization and Rationalization

Removed Original Resource and Original Service and re-joined those into CA-TEXAS\_cases.csv via a join to resources offered via Service ID and resource\_id; this appeared to address the errant flip-flopping of resources and services.



#### **Quality Assurance**

Pertaining to the threshold values in resources\_offered.csv file, some Connection Resources and Services were either "null" or "0".





#### Standardization and Rationalization

Connection Resources and Connection Services that had either a "null" or "0" value in their threshold metric were removed from analysis. Removed 4,599 records that had a "null" or "0" value for their threshold metric.



#### **Quality Assurance**

Specifically, in the CA-TEXAS\_cases.csv file, The Connection Type column and Closed Connection Status used to perform the analysis had 89.84 and 47.25 percent null values respectively. Many outreach channels contained more than one communication method. These factors made it difficult to assess which outreach channels were most successful.



#### **Standardization and Rationalization**

Filter out the null values and build the analysis based on the available data. The high percentage of null put risk on the analysis accuracy.

Removed 19.4K null values from Closed connection status field



#### **Trim or Remove Whitespace**

resource\_name and resource\_service in the resources\_offered.csv file had leading and trailing whitespace.





#### **Standard of Care**

Leading & Trailing whitespace removed with Data Cleanse Tool in Alteryx Workflow.



# **Summary of Key Takeaways**



# Successful and Unsuccessful Case Outcomes

Success Rates were measured to identify the factors which contributed to high Success Rates. Combined Arms has multiple Outreach Channel Types to help connect Veterans to internal and external resources. Examination of these Channel Types showed that In person, Phone calls and text messages were most successful. Prioritizing the use of these methods is highly encouraged for future interactions.

Trending Successful Cases against Cases over time, lead to variations in Success Rate from year to year; especially when Cases increased. Increase in Cases and decrease to Success Rate initially indicates the need for more resources.

Reviewing Success Rates by Partner Organizations detailed that many partnerships may not be currently utilized to their fullest extent. Meaning, these Partner Organizations have a very high Success Rate, but a low Case load. Highly encourage, where applicable, assigning more Cases to Partner Organizations that have historically proven high Success Rates.



# Connection of Resources to Services & Service Breakdowns

Combined Arms does a great job of connecting Veterans to Partner Organizations that not only support their requests, but also align with Services that Partner Organizations provide. Only exceptions noticed were related to missing data, therefore, Combined Arms was force listed as the Connection Resource (~2%).

Cases, especially since 2021, have grown tremendously. Most of that is tied to the increase in Internal Resources, Health & Wellness, Basic Living Needs, Benefits Counseling, Financial Assistance, and others.





#### **Average Time to Connect With Veterans**

Generally speaking, the Average Hours to Engage for Partner Organizations is relatively high. Best practices and guidelines need to be developed and implemented, in an effort to improve the engagement timeline between Partner Organizations and Veterans.

Combined Arms is taking the right approach to reduce the number of hours which it takes to engage. Recent metrics and trends showcase an improvement to engagement timelines when viewing the data by Internal Cases. However, when examining External Cases, the data trend shows an increase, as of late. Ultimately suggesting that there is room for improvement regarding External Partner Organizations.

Reviewing connection trends by First Connection, again Internal Cases (63%) show a much higher First Connection Rate than External Connections (23%). Continuing to suggest room for improvement and implementation of potential guidelines/best practices.



# Supply vs. Demand

While not widespread, exceeding of Connection Resource Thresholds do occur, with instances increasing over the last couple of years (2021-2022).

Most occurrences of Thresholds being exceeded take place in Career Services type Connection Services, as well as Internal Resources (i.e. Combined Arms). Knowing this, there is now a clear path for prioritizing areas for potential threshold expansion conversations, supporting claims for additional internal support, and also prioritize areas where new Partner Organization relationships could be most beneficial to the end clients / Veterans.



Q1: Successful Vs.
Unsuccessful Trends By
Various Factors

# Insight Summary: Successful vs. Unsuccessful by Client Outreach Channel

# Insight(s):

The analysis covers all the data provided by CA from 2017 to the beginning of 2022

- Phone Call has both, a high Case number (471), and high Success Rate (57.8%) on top of Phone Call on its own, any Outreach Channel combined with a Phone Call tends to result in a successful connection.
- Text Message has a Success Rate of 57.1%, while Email has a Success Rate of 31.5%.
- In Person Case Connections have high rates of success; however, there are only 10 Cases that have an In Person Outreach Channel designation.

# **Actionable Suggestion(s):**

- In Person Connection Types should be used when possible. Phone Call and Text Message should also be used by Combined Arms due to their high success rate.
- If Email is used, Combined Arms should follow up via Text Message or Phone Call.
- Standardizing the method used to record the case Connection Type will help ensure complete and accurate data, leading to a better understanding of the most effective Connection Type.
- When there is more than one Outreach Channel used, Combined Arms could record the original outreach channel type and each outreach channel used to follow up (ex. first outreach channel, second outreach channel). Combined Arms should also clearly identify which of the outreach channels actually resulted in a successful connection.

**Note**: Closed Connection Status (Column AD) and Connection Type (Column AB) from the CA-TEXAS\_case file were used for the analysis. The "# of Cases" represents the count of Cases with a populated Outreach Channel, Connection Type, and Closed Connection Status; excluding any null values.





#### Successful Cases

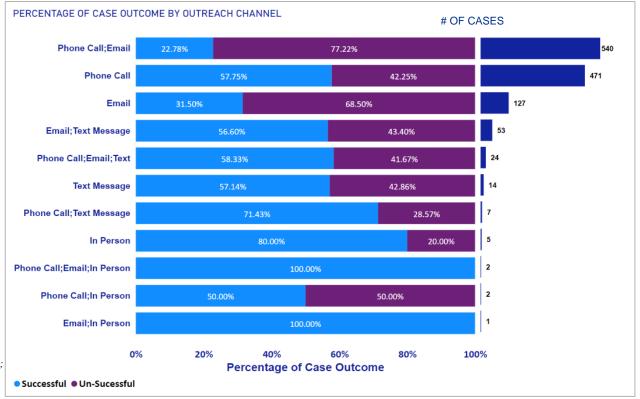
- · Successfully connected with client
- We have already worked with this client



#### **Unsuccessful Cases**

- Any other reason
- CAX Closed the connection
- Client never replied to our communications
- · Organization never responded to client CAX took over
- Out of network referral
- Unable to help client referral was inaccurate
- Unable to help client unrealistic expectations
- · Unable to help client we referred to another org

Successful and Unsuccessful definition is applied to slide 9 through slide 14



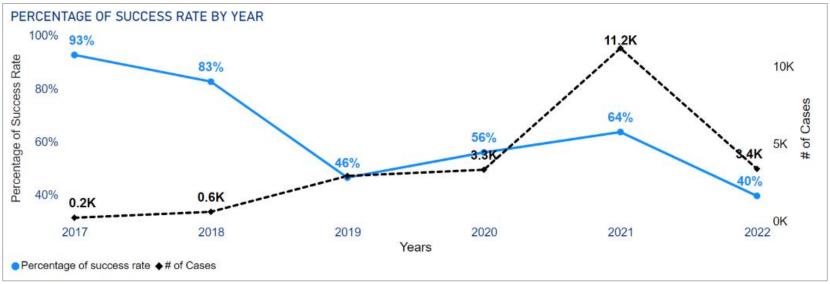
# **Insight Summary: Success Rate Trending**

# Insight(s):

- During 2017 and 2018, the Success Rate was significant; however, the number of total cases was not large.
- Between 2018 and 2019, the number of cases increased significantly, and the success rate dropped 37%. The Success Rate has improved slightly during 2020 and 2021.
- Between 2020 and 2021, Combined Arms was able to increase their Success Rate
  despite a large increase in the number of cases; however, the success rate was still
  lower than in 2017 and 2018.
- Examination of year over year changes (Appendix 25-27) detailed that as the number of Service Categories increased, the Success Rate decreased. The increased number of Service Categories, paired with swings in Service Categories with large case loads (i.e. Career Services) lead to declining rates in early years (2018-2019).

# **Actionable Suggestion(s):**

- The analysis shows that the increase in the number of cases affected the success rate of the cases; indicating a need for more resources.
- In an effort to continue increasing Successful Cases, especially when the overall Cases increase, Combined Arms could consider **building relationships** with **more Partner Organizations** or **collaborating** with **current Partner Organizations** to **increase** their **capacity**.





**Note:** The grand total was calculated based on Closed Connection Status (Column AD), and Year was based on Create Dt (Column X) from the CA-TEXAS\_case file. Note that 2022 data is only for first 3 months so a full case total projection would be 13.6K, 21% higher than 2021 rate, ignoring seasonal effects.

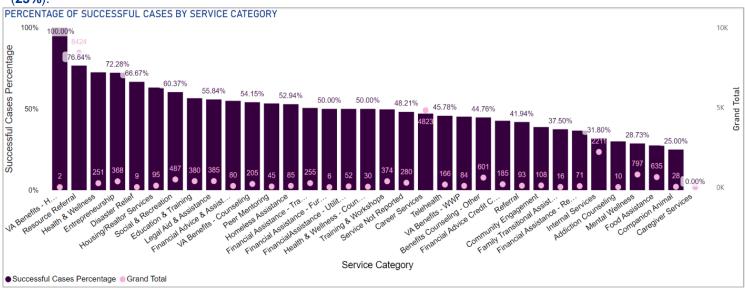
# Insight Summary: Successful vs. Unsuccessful by Service Requested

# Insight(s):

- Mental Wellness has a high number of cases (797 total cases) and falls within the lowest Success Rate organizations at 28.7%. The increase in service request for mental health could be the reason behind the decreased Success Rate.
- Resource Referrals showed a higher Success Rate of 76.6% across 8,424 total Cases.
- It does not seem to be a trend between number of Cases per Service Category and Success Rate. For example, Entrepreneurship has a relatively high number of cases (368 total cases) and a high success rate (72.3%) while Companion Animal has both a low number of cases (28 total cases) and a low success rate (25%).

# **Actionable Suggestion(s):**

- Internal Services, Mental Wellness, and Food Assistance all have a high
  number of Cases and a low Success Rate. These Service Categories should be
  investigated further to determine why successful connections are not being
  made.
- Communicate findings regarding Successful Connections and leading Successful Connection Types across all Service Categories, especially those with lower Success Rates.



Service Category	% of Successful Cases
VA Benefits - Healthcare	100%
Resource Referral	76.64%
Health & Wellness	72.51%
Entrepreneurship	72.28%
Disaster Relief	66.67%
Housing/Realtor Services	63.16%
Social & Recreation	60.37%
Education & Training	56.58%
Legal Aid & Assistance	55.84%
Financial Advice & Assistance - Other	55%

Note: Closed Connection Status (Column AD) and Service Category (Column N) from the CA-TEXAS\_case file were used for the analysis.



# Insight Summary: Successful vs. Unsuccessful by Partner Organization

# Insight(s):

- In order to compare Combined Arms with other resources outside of the organization, the Connection Resource data was **categorized** into **Internal Resources and External Resources**.
- Internal Resources (68.7%) have a higher Success Rate when compared to that of External Resources (47.9%); however, the Case Load for Internal Resources is less.
- Sixteen Partner Organization had Success Rate of 100%; however, they all had 35 cases or less.
- Examining Partner Organizations with 50+ Cases, the Top 2, when it comes to Success
  Rate, are Combined Arms Gym (99.4%) and Texas Veterans Commission
  Entrepreneur Program (95.5% percent).
- Combined Arms Resources has the largest number of Cases (9,414 cases) with 68.2%
   Success Rate.

# **Actionable Suggestion(s):**

- Overall, it is challenging to evaluate Partner Organization effectiveness when they have a trivial number of Cases.
- Perform deep-dive into External Resources in an effort to examine root cause for why
  External Resources have a Success Rate that is sub-50%.
- With thresholds in mind, it is possible that these top Partner Organizations for Success Rate could be prioritized for Cases going forward; if relationship is still active.
- Collaborate and determine best practices used by these Partner Organizations to carry forward amongst all external resources.
- Initial hypotheses point to a few potential problem areas that could be related to any of the following:
  - Outreach channel, capacity, follow up procedure, etc.



#### **External Resources**

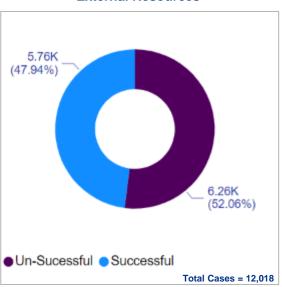
- Title does not contain "Combined Arms."
- The success rate in external resources is about 47.94 percent which is not that significant.

# ....

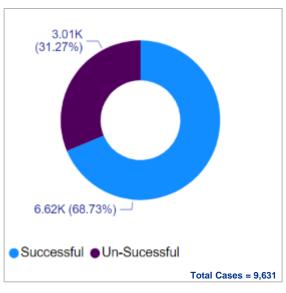
#### Internal Resources

- · Title contains "Combined Arms."
- Internal cases had a success rate of about 68.73 percent.

#### **External Resources**



#### **Internal Resources**



Note: Closed Connection Status (Column AD) and Connection Resource (Column P) from the CA-TEXAS\_case file were used for the analysis. "External Resources" and "Internal Resources" were defined above.



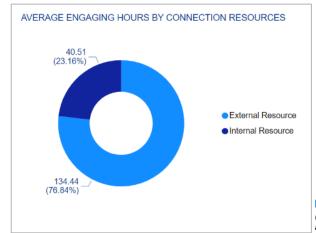
# Insight Summary: The average length of time it takes the organization to reach a client who has requested services

# Insight(s):

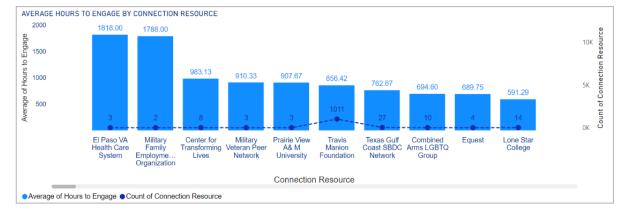
- The Average Hours to Engage for External Resources is 3x+ than that of Internal Resources.
- Internal Resources take ~40 Hours (i.e. 1 Work Week), while External Resources take 130+ Hours (i.e. 3 Work Weeks).
- The **Top 2 Partner Organizations**, when it comes to Average Hours to Engage, took over **44 work weeks** to engage; however, these organizations had **fewer than 4 cases each**.
- The Top 10 Partner Organizations, associated with the largest Average
  Hours to Engage, had less than 28 cases, with the exception of The Travis
  Manion Foundation, which had 1,011 cases.
- No trend between number of cases and number of hours to engage was recognized.

# **Actionable Suggestion(s):**

- Research and identify potential root causes related to Partner
   Organization outside of Combined Arms taking 16+ business days on
   average to engage with Veterans.
- Generate uniform SLAs across all External Partner Organizations as it relates to establishing a timeline for engagement with Veterans (i.e. First outreach must be within 5 business days).
- Implement a proactive system, procedure, or alerts that monitor incoming requests and ensure that no connection request is delayed or overlooked.



Note: Hours to Engage (Column AS) and Connection Resource (Column P) from the CA-TEXAS\_case file were used for the analysis





# Insight Summary: The average length of time it takes the organization to reach a client who has requested services (Cont.)

# Insight(s):

#### Internal Resources

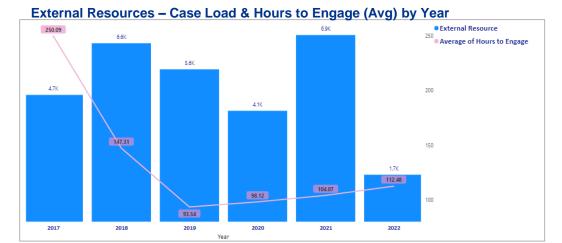
- The Average Hours to Engage spiked, and reached it's peak, in 2019, when the metric reached 85.8 Hours.
- Coincidentally, after reaching it's peak, The Average Hours to Engage decreased from ~85.8 in 2019 to 40.7 2020.
- Since 2020, the Average Hours to Engage has gradually declined despite a large increase of over 5,100 cases in 2021.

#### External Resources

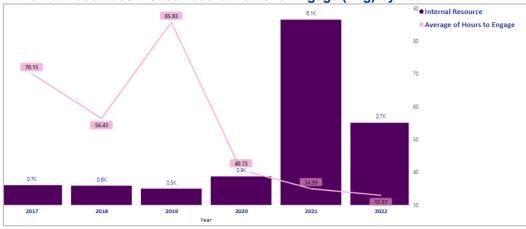
- Despite early decreases in the Average Hours to Engage (2017-2019), recent years have seen gradual increases from 93.5 (2019) Hours to 112.48 Hours (2022) on average.
- Both average hours to engage and the number of cases increased in 2021.

# **Actionable Suggestion(s):**

- Examine any processes and procedures that were recently implemented, related to Average Hours to Engage, that could have contributed to declines internally.
- Collaborate with Partner Organizations to assess potential bottlenecks that could exist and share leading practices that could improve the Average Hours to Engage externally.
- Continue tracking and accurately capturing data related to Average Hours to Engage, ensuring prevention of any outlier data points in the future.



#### Internal Resources - Case Load & Hours to Engage (Avg) by Year



Note: Hours to Engage (Column AS) and Connection Resource (Column P) from the CA-TEXAS\_case file were used for the analysis. "External Resources" and "Internal Resources" were defined on a previous slide. Hours to Engage and Connection Resource both had 0 percent null values.



# **Insight Summary: First Connection Rate**

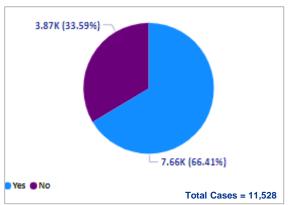
# Insight(s):

- Internal Resources were able to connect Veterans to a Partner Organization during their First Connection 66.4%.
- External Resources were able to connect Veterans to a Partner Organization during First Connection 23.2%.
- Over the years, the percentage of First Connections has improved from year to year; even more recently, where the First Connection rate from 2019 to 2021 has increased 41%.
- The internal approach that Combined Arms is taking, to improve their service at First Connection, appears to have a positive influence on Frist Connection Rates

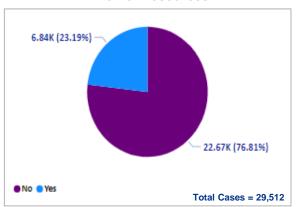
# **Actionable Suggestion(s):**

- The approach that Combined Arms has recently taken on has had a positive impact to the First Connection Rate – continuation of any recent changes or implementations is highly encouraged to continue improving, or preserving, Combined Arms' First Connection Rate.
- To further improve the overall First Connection Rate, perhaps an
  implementation, or connection, on recent improvements made internally, with
  External Resources, could improve the external First Connection Rate.

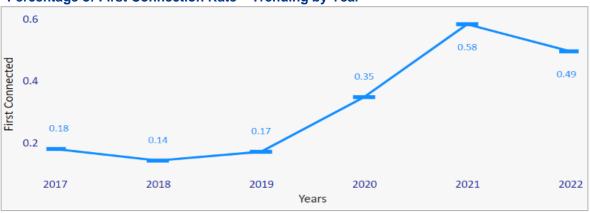
#### **Internal Resources**



#### **External Resources**



#### Percentage of First Connection Rate – Trending by Year



Note: First\_connection (Column G) from the CA\_TEXAS\_case\_timeline file and Create Dt (Column X) and Connection Resource (Column P) from the CA-TEXAS\_case file were used for the analysis.





Q2: Partner Organizations, Services, and Supply vs. Demand

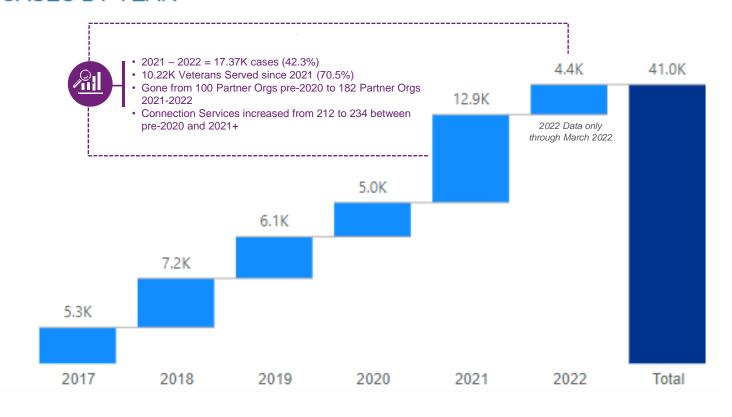
# **Insight Summary: CAX KPI Summary & Partner Organization Success**

# Insight(s):

- Since 2017, through March of 2022, Combined Arms has assisted with a total of **41,040 distinct Cases**.
- Until, 2021, Case Load on an annual basis, was roughly around ~6,000 Cases.
- In 2021, total Case Load sharply increased to 12,942 Cases.
  - 100%+ increase from annual average.
  - 16% higher than previous two years combined (2019-2020).
- All external Partner Organizations, included in the CA-TEXAS\_case.csv file, had successful matches to Services that they provide via the resources\_offered.csv.
- Only differences in Connection Resource/Service and Services they
  provide exist when Combined Arms Resources is the Connection
  Resource 882 (2.1%) Cases in total.
  - These were vetted and determined to be exceptions that root from unknown/null Connection Resource data.
  - Current data model logic states that when a Connection Resource is unknown, it is force populated to Combined Arms Resources.



#### CASES BY YEAR





# **Insight Summary: CAX Service Groups & Partner Organizations**

# Insight(s):

- Examining the Service Groups that CAX connects clients with each Partner Organization, we notice that majority of the Cases are focused within Internal Services (34.3%), Career Services (30.4%), and Health & Wellness (7.6%).
- The aforementioned Top 3 Service Groups account for 72.3% of all Cases in Combined Arms' history (2017-2022).
- Examining the trend lines within each Service Group, it is clear that a majority experienced spikes to their respective case loads starting in 2021.
- Examining the Top 3 Resources within each of the Top 10 Service Categories we can see repeat Partner Organizations such as: Combined Arms Resources, **Nextop, Wounded Warrior Project, Team Red White** And Blue, and Lone Star Legal Aid.

# **Actionable Suggestion(s):**

- Understanding the most in-demand Service Groups, when it comes to Total Cases, can prove to be a starting point when seeking new Partner Organization to collaborate with.
- The above is **certainly true**, where top Organizations are handling a large potion (+30%) of the Case Load (i.e. Internal Services, Benefits Counseling, Legal Aid & Assistance, Basic Living Needs, and Financial Advice & Assistance).

# **Internal Services:** 9.557 Cases since '21 Career Services: **12,492** Cases 2,779 Cases since '21 Career Gear Houston (9%) **Health & Wellness:** 3.114 Cases 1.209 Cases since '21 Veteran Wellness Alliance (19%) Easter Seals of Greater Houston (11%) Team Red White And Blue (9%) Social & Recreation: 2,832 Cases 509 Cases since '21 Team Red White And Blue (15%) Lone Star Veterans Association (12%) Wounded Warrior Project (10%) **Benefits Counseling:** 2,262 Cases 767 Cases since '21 Texas Veterans Commission (31%) Wounded Warrior Project (31%) Hope For The Warriors (16%)



93 Cases since '21



Case Load = Distinct Count of Case IDs; Partner Organizations = Connection Resource; all data coming from Case File

17

# **Insight Summary: CAX Partner Organizations & Connection Services**

# Insight(s):

- Exploring the Top 10 Partner Organizations, it is clear that, by Cases, the Top 3 Partner **Organizations** are **Combined Arms Resources** (26.9%), Wounded Warrior Project (5.5%), and Vet Jobs (Powered by Casy) (4.8%).
- The **Top 3 Partner Organizations** are responsible for 37.2% of CAX's Total Case Load (2017-2022), with Combined Arms Resources contributing a vast **majority**.
- Mostly, from a Partner Organization standpoint, Cases have been on the decline since 2021 outside of Combined Arms, Nextop, Texas Veterans Commission, and Mission United North Texas; all of which have saw increases in 2021.
- Additional view of Top 10 Connection Services and Top 3 Connection Resources included in the Appendix.

# **Actionable Suggestion(s):**

Combined Arms, and the Veterans that they assist, repeatedly associate their needs to Career Services, Health & Wellness, and Benefits categories - this should play a role in future relationships and expansion (i.e. new locations or services areas).





Case Load = Distinct Count of Case IDs; Partner Organizations = Connection Resource; all data coming from Case File All trend lines contain 2022 data, which is not complete. 2022 Data only through March 2022

1.316 Cases

1,011 Cases

999 Cases

986 Cases

**956** Cases

# **Insight Summary: Supply vs. Demand**

# Insight(s):

- While not widespread, monthly threshold exceeding does occur, especially in prevalent Service Groups.
- On a monthly average, a **threshold is exceeded** anywhere from ~1% (2017-2020) to ~1.3% (2021-2022) of the time, which is intermittent. Although sparse, threshold exceeding has been **seen more recently**.
- While thresholds are exceed on sporadic occasions, we do see some happening more than others, especially more recently (2021-2022): Combined Arms Resources General Inquiry, Texas Veterans Commission Veteran Disability Benefits Assistance, Combined Arms Resources Basic Needs.

# **Actionable Suggestion(s):**

• The below information on repeat threshold exceeding can help **prioritize areas of concern** going forward, whether it's particular Service Groups, Connection Resources, Services, etc. Ultimately, **assisting** with areas to **initiate threshold expansion conversations**, provide additional evidence of **internal support claims**, or **prioritize** areas where **new Partner Organization relationships** could be most beneficial to the end clients / Veterans.

Supply vs. Demand: Repeat Threshold Exceeding Connection Resources & Connection Services						
Service Group	Connection Resource	Connection Service	# of Months Exceeding Threshold	Avg % of Threshold	Last Occurrence	
Internal Services	Combined Arms Resources	General Inquiry	13	383%	March-2022	
Career Services	Workforce Opportunity Service	Comprehensive Job Services	9	131%	August-2018	
Career Services	SER Houston	Job Placement	6	420%	October-2017	
Career Services	Career And Recovery Resources Inc.	Comprehensive Job Services	5	154%	October-2018	
Benefits Counseling	Texas Veterans Commission	Veteran Disability Benefits Assistance	3	208%	March-2022	
Career Services	SER Houston	Wraparound Career Services	2	150%	October-2017	
Internal Services	Combined Arms Resources	Internal Rent Referral	2	124%	November-2021	
Career Services	Still Serving Veterans	Career Search And Placement	2	140%	March-2022	
Internal Services	Combined Arms Resources	Basic Needs	2	198%	October-2021	





# Next Steps

# **Potential For Further Exploration**



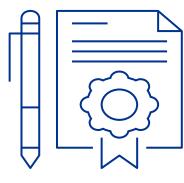
# **Immediate Next Steps**







KPMG will schedule follow up with Combined Arms to discuss potential for continued support



KPMG team to send survey to get your feedback





# Appendix



For Better with Data



# **Dataset Inventory**

### Inventory of data utilized for the analysis:

#### Dataset 1:

- Name: CA-TEXAS case.csv
- Description: Table containing customer resource requirements, resource servicing the service rendered to the customer
- Source (client/KPMG): Combined Arms (CAX)
- De-identification required for any PII, PHI or other sensitive data types: No PII, PHI, or other sensitive data types included
- Data Attributes Used: Service Group, Service Category, Connection Resource, Service, Service Id, Closed Date, master\_id, Case Id, Case Number,
   Status, Reason, Original Service, Original Resource, Resource Id2, Description, Is Closed, Resource Id, Create Year, crdate, Hours to Engage, Outcomes,
   Closed Connection Status, Connection Type

#### Dataset 2:

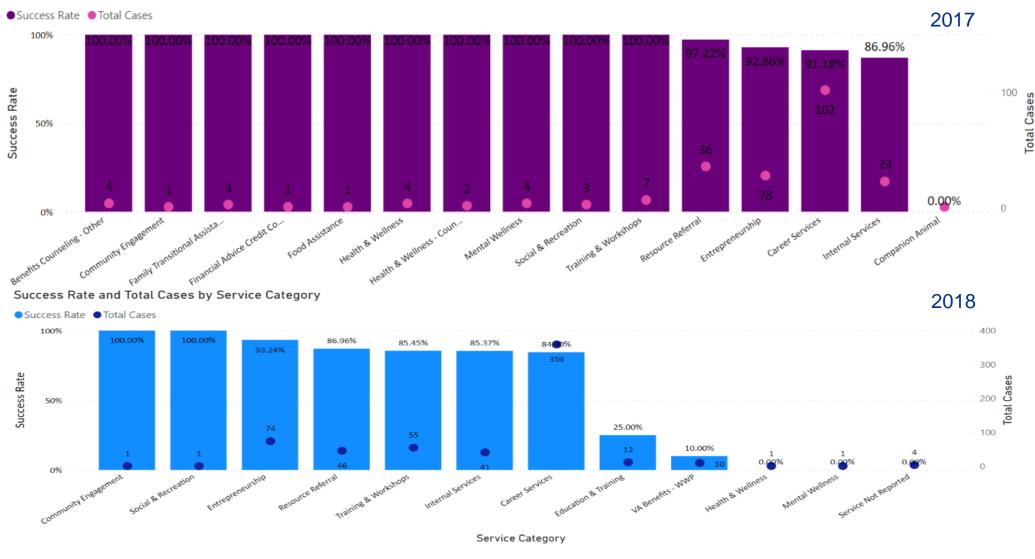
- Name: resources\_offered.csv
- Description: Table defining what services are offered by each owner
- Source (client/KPMG): Combined Arms (CAX)
- De-identification required for any PII, PHI or other sensitive data types: No PII, PHI, or other sensitive data types included
- Data Attributes Used: resource\_id, resource\_name, resource\_service, org\_id, threshold

#### Dataset 3:

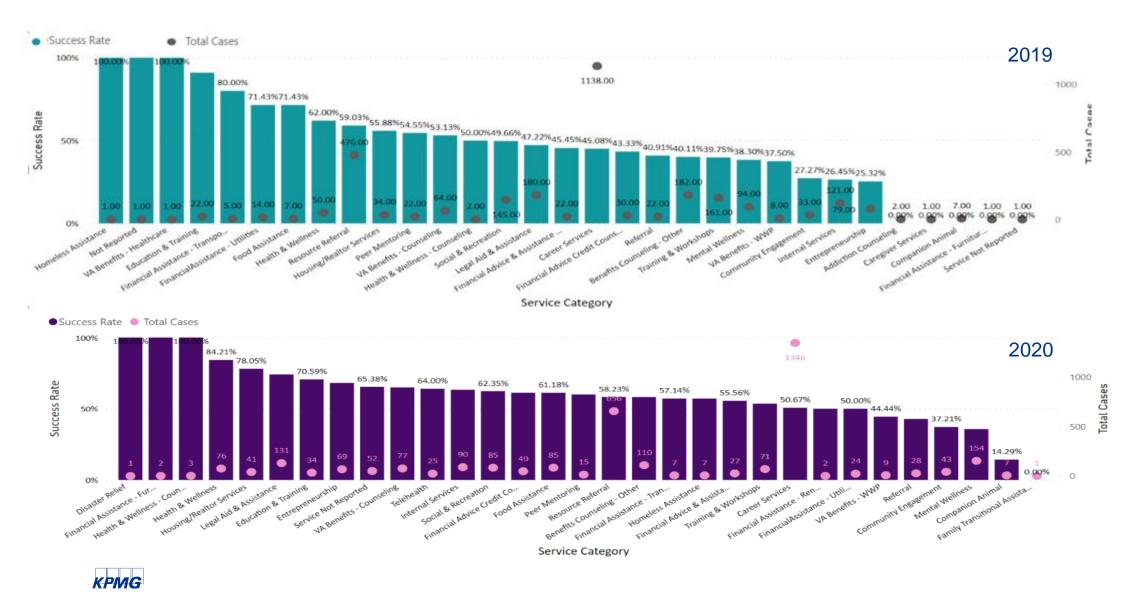
- Name: CA-TEXAS\_case\_timeline.csv
- Description: Table defining the time lag between when a customer profile was created and when the first case was initiated.
- Source (client/KPMG): Combined Arms (CAX)
- De-identification required for any PII, PHI or other sensitive data types: No PII, PHI, or other sensitive data types included
- Data Attributes Used: First\_connection



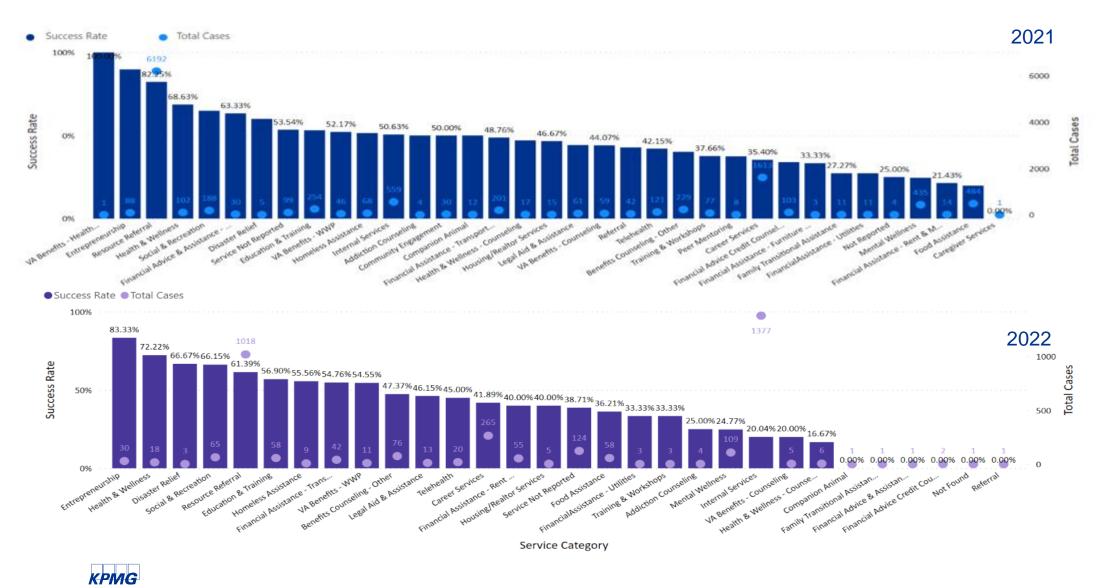
# Success Rate by Service Category By Year



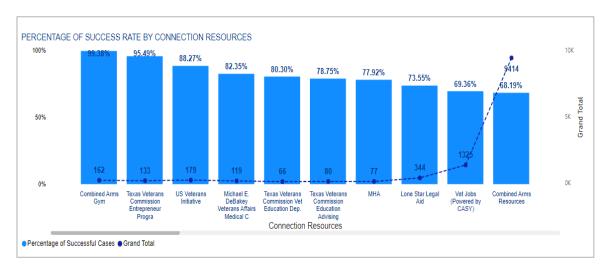
# Success Rate by Service Category By Year

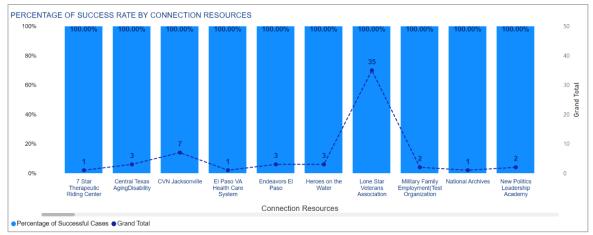


# Success Rate by Service Category By Year



# **Success Rate By Partner Organizations**





Note: Closed Connection Status (Column AD) and Connection Resource (Column P) from the CA-TEXAS\_case file were used for the analysis.

Top 10 Partner Organizations with highest success rate with more than 50 cases

Service Category	% of Successful Cases
Combined Arms Gym	99.38%
Texas Veterans	
Commission	
Entrepreneur Program	95.49%
US Veterans Initiative	88.27%
Michael E. DeBakey	
Veterans Affairs	
Medical C	82.35%
Texas Veterans	
Commission Vet	
Education Dep.	80.30%
Texas Veterans	
Commission Education	
Advising	78.75%
MHA	77.92%
Lone Star Legal Aid	73.55%
Vet Jobs (Powered by	
CASY)	69.36%
Combined Arms	
Resources	68.19%

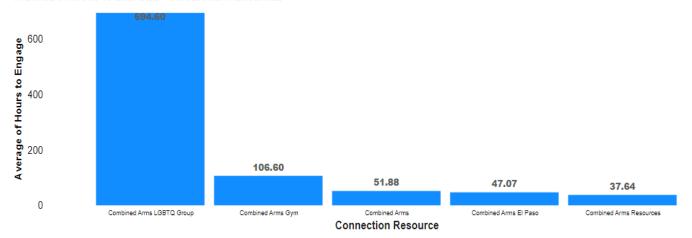
16 Partner Organizations with 100% success rate and less than 50 cases

Service Category	% of Successfu Cases
7 Star Therapeutic	
Riding Center	100%
Central Texas	
AgingDisability	100%
CVN Jacksonville	100%
El Paso VA	
Healthcare System	100%
Endeavors El Paso	100%
Heroes on the Water	100%
Lone Star Veterans	
Association	100%
Military Family	
Employment (Test	
Org)	100%
National Archives	100%
New Politics	
Leadership	
Academy	100%
Prairie View A&M	4.000/
University	100%
SD Vet Services	100%
TVC Employment	1000/
DFW Region3	100%
VA Benefits Office	100%
Valor Ranch	100%
We Support Vets	
(Test Org)	100%



# **Average Hours To Engage Internal And External Resources**

#### AVERAGE of HOURS TO ENGAGE BY CONNECTION RESOURCES



#### AVERAGE of HOURS TO ENGAGE BY CONNECTION RESOURCES



#### Internal Resources outliers with highest average hours to engage

Organization	# of Records	Minimum # of Hours	Maximum # of Hours	Mean	Median
Combined Arms LGBTQ Group	10	24	1941	694.6	320.5
Combined Arms Gym	368	0	1263	106.6	48.5

#### External Resources outliers with highest average hours to engage

Organization	# of Records	Minimum # of Hours	Maximum # of Hours	Mean	Median
El Paso VA Health					
Care System	3	24	2715	1818	2715
Military Family					
Employment (Test					
Organization	2	1754	1822	1788	1788
Center for					
Transforming Lives	8	24	2285	983.13	449.5
Military Veteran					
Peer Network	3	20	2379	910.33	332
Prairie View A&M					
University	3	24	2468	907.67	231
Travis Manion					
Foundation	1011	0	4617	856.42	167
Texas Gulf Coast					
SBDC Network	27	20	2979	762.67	241
Equest	4	48	2285	689.75	213
Lone Star College	14	5	2283	591.29	46
We Support Vets					
(Test Organization	4	24	1348	584.25	482.5



# **Insight: CAX KPI Summary & Partner Organization Success**

#### **Analysis Approach CAX Case Summary:**

- 1. KPI Metric Counts (i.e. Total Cases, Cases by Year, Veterans Served, etc.) all calculated using a count, or a distinct count, where applicable, to generate metrics over a specific time or in total.
- 2. When attached to a point in time, the counts, or distinct counts, were based off of the date field "Create Dt".
- 3. Based off of project notes, and guidance, comparisons were done via two groupings: Pre-2021 and 2021+.

#### **Analysis Approach Partner Organization Success:**

- 1. Grouped Connection Resource and Services from CA-TEXAS\_case.csv and compared to "master list" of resource names and resource services in the resources\_offered.csv.
- 2. Joined two groups together to see where case file groups did not match resources offered master list.
- 3. All external resources matched 100% to services that they provide.
- 4. Combined Arms Resources was the only Resource that had instances of cases attached to a service they were not listed to provide these instances were confirmed exceptions due to data model logic that is applied when connection resource is unknown.

#### **Key Insights**:

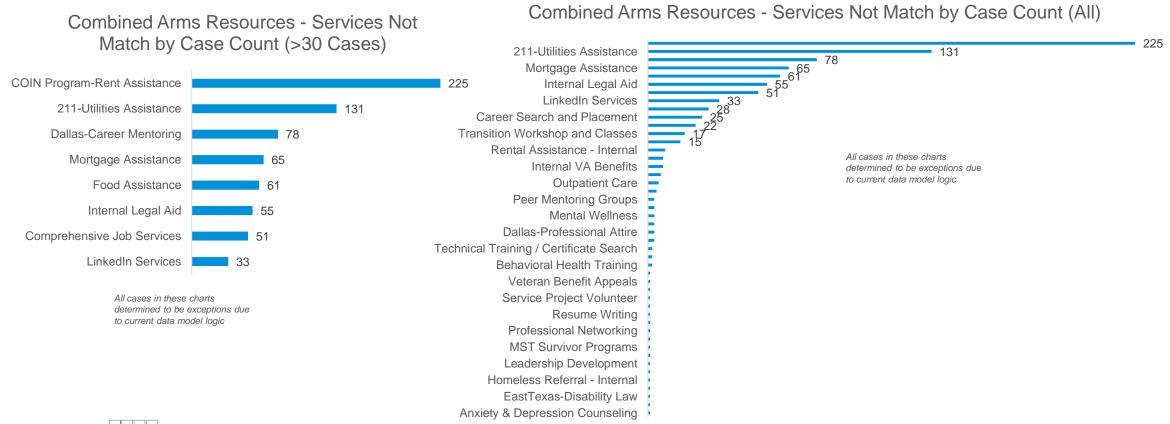
- Since 2017, through March of 2022, Combined Arms has assisted with a total of 41,040 distinct Cases.
- Until, 2021, Case Load on an annual basis, was roughly around ~6,000 Cases.
- In 2021, total Case Load sharply increased to 12,942 Cases.
- 100%+ increase from annual average.
- 16% higher than previous two years combined (2019-2020).
- All external Partner Organizations, included in the CA-TEXAS\_case.csv file, had successful matches to Services that they provide via the resources\_offered.csv.
- Only differences in Connection Resource/Service and Services they provide exist when Combined Arms Resources is the Connection Service 882 (2.1%)
   Cases in total
  - These were vetted and determined to be exceptions that root from unknown/null Connection Resource data.
  - Current data model logic states that when a Connection Resource is unknown, it is force populated to Combined Arms Resources.



# **Insight: CAX KPI Summary & Partner Organization Success (Cont.)**

#### **Supporting Data:**

- 1. Summarized table of findings
- 2. Power BI Dashboard screenshot provided in deck separate Power BI document provided in unison with slides



# **Insight: CAX Service Groups & Partner Organizations**

#### **Analysis Approach:**

- 1. Grouped data by Service Group and Connection Resource.
- 2. Counted distinct Case IDs by Service Group and Connection Resource grouping.
- 3. Sorted records in descending order, by count of Case ID and then in alphabetical order for Service Group.
- 4. With records grouped by Service Group and in a descending order, able to retrieve a sample of each Service Group, which consisted of the Top 3 Connection Resources by Service Group.
- 5. Assigned Tile Groups to properly represent a Connection Resource's rank within the Service Groups.
- 6. Calculated percentage of Case Load for each Connection Resource (Connection Resource Cases / Total Cases of Service Group) to formulate a percentage of cases metric.
- 7. Transposed to represent in more summarized fashion.

#### **Key Insights**:

- Examining the Service Groups that CAX connects clients with each Partner Organization, we notice that majority of the Cases are focused within Internal Services (34.3%), Career Services (30.4%), and Health & Wellness (7.6%).
- The aforementioned Top 3 Service Groups account for 72.3% of all Cases in Combined Arms' history (2017-2022).
- Examining the trend lines within each Service Group, it is clear that a majority experienced spikes to their respective case loads starting in 2021.
- Examining the Top 3 Resources within each of the Top 10 Service Categories we can see repeat Partner Organizations such as: Combined Arms Resources, Nextop, Wounded Warrior Project, Team Red White And Blue, and Lone Star Legal Aid.

#### **Actionable Suggestion(s):**

- Understanding the most in-demand Service Groups, when it comes to Total Cases, can prove to be a starting point when seeking new Partner Organization to collaborate with.
- The above is certainly true, where top Organizations are handling a large potion (+30%) of the Case Load (i.e. Internal Services, Benefits Counseling, Legal Aid & Assistance, Basic Living Needs, and Financial Advice & Assistance).



# **Insight: CAX Service Groups & Partner Organizations (Cont.)**

#### **Supporting Data:**

- 1. Summarized table of findings
- 2. Power BI Dashboard screenshot provided in deck separate Power BI document provided in unison with slides

Top 3 Partner Organizations by Service Group (% of Total)						
Service Group	Total Case Load	Distinct Partner Orgs	#1 Partner Org	#2 Partner Org	#3 Partner Org	
Internal Services	14,059	67	Combined Arms Resources (67%)	Mission United North Texas (6%)	Family Houston (3%)	
Career Services	12,492	75	Vet Jobs (Powered By Casy) (15%)	Nextop (13%)	Career Gear Houston (9%)	
Health & Wellness	3,114	74	Veteran Wellness Alliance (19%)	Easter Seals Of Greater Houston (11%)	Team Red White And Blue (9%)	
Social & Recreation	2,832	35	Team Red White And Blue (15%)	Lone Star Veterans Association (12)	Wounded Warrior Project (10)	
Benefits Counseling	2,262	23	Texas Veterans Commission (31%)	Wounded Warrior Project (31%)	Hope For The Warriors (7%)	
Legal Aid & Assistance	1,671	11	Lone Star Legal Aid (46%)	Beacon Law (28%)	Wounded Warrior Project (16%)	
Basic Living Needs	1,403	21	Houston Food Bank (36%)	Combined Arms Resources (21%)	Lone Star Legal Aid (11%)	
Financial Advice & Assistance	1,069	24	Combined Arms Resources (41%)	Alamo Area Council Of Governments (13%)	Lone Survivor Foundation (17.6%)	
Education & Training	771	33	Nextop (21%)	Texas Veterans Commission Education Advising (10%)	Texas Veterans Commission Vet Education Dep. (9%)	
Community Engagement	698	10	Travis Manion Foundation (29%)	Team Rubicon (23%)	The Mission Continues (20%)	



# **Insight: CAX Partner Organizations & Connection Services**

#### **Analysis Approach:**

- 1. Grouped data by Connection Resource and Connections Services.
- 2. Counted distinct Case IDs by Connection Resource and Connection Service grouping.
- 3. Sorted records by Connection Resource and then also sorted, in descending order, by distinct count of Case IDs.
- 4. With records grouped by Connection Resource and in a descending order, able to retrieve a sample of each Connection Resource, which consisted of the Top 3 Connection Services by Connection Resource.
- 5. Assigned Tile Groups to properly represent a Connection Service's rank within the Connection Resource.
- 6. Calculated percentage of Case Load for each Connection Service (Connection Service Cases / Total Cases of Connection Resource) to formulate a percentage of cases metric.
- 7. Transposed to represent in more summarized fashion.

#### **Key Insights**:

- Exploring the Top 10 Partner Organizations, it is clear that, by Cases, the Top 3 Partner Organizations are Combined Arms Resources (26.9%), Wounded Warrior Project (5.5%), and Vet Jobs (Powered by Casy) (4.8%).
- The Top 3 Partner Organizations are responsible for 37.2% of CAX's Total Case Load (2017-2022), with Combined Arms Resources contributing a vast majority.
- Mostly, from a Partner Organization standpoint, Cases have been on the decline since 2021 outside of Combined Arms, Nextop, Texas Veterans Commission, and Mission United North Texas; all of which have saw increases in 2021.

#### **Actionable Suggestion(s):**

Combined Arms, and the Veterans that they assist, repeatedly associate their needs to Career Services, Benefits, and Health & Wellness categories – this should play a role in future relationships and expansion.



# **Insight: CAX Partner Organizations & Connection Services (Cont.)**

### **Supporting Data:**

- 1. Summarized table of findings
- 2. Power BI Dashboard screenshot provided in deck separate Power BI document provided in unison with slides

Top 3 Connection Services by Connection Resource (% of Total)						
Connection Resource	Total Case Load	Distinct Partner Orgs	#1 Connection Service	#2 Connection Service	#3 Connection Service	
Combined Arms Resources	11,056	84	General Inquiry (46%)	Service Rendered (12%)	Internal Rent Referral (7%)	
Wounded Warrior Project	2,243	21	Veteran Disability Benefits Assistance (20%)	Wraparound Career Services (16%)	Career Search And Placement (16%)	
Vet Jobs (Powered By Casy)	1,988	8	Comprehensive Job Services (44%)	Career Search And Placement (34%)	Career Workshops (10%)	
Nextop	1,959	15	Wraparound Career Services (40%)	Job Placement (29%)	Career Mentoring (5%)	
Lone Star Veterans Association	1,438	14	Professional Networking (29%)	Entrepreneurship (14%)	Leadership Development (12%)	
Career Gear Houston	1,316	8	Professional Attire (38%)	Entrepreneurship (16%)	Transition Workshop (12%)	
Travis Manion Foundation	1,011	8	Professional Networking (30%)	Leadership Development (20%)	Volunteer Leadership Programs (13%)	
Lone Star Legal Aid	999	10	Family Law (31%)	Veteran Benefit Appeals (17%)	Housing (15%)	
Texas Veterans Commission	986	8	Veteran Disability Benefits Assistance (70%)	Employment-career Search And Placement (26%)	Central Ajc-benefits (1%)	
Mission United North Texas	956	13	Financial Assistance - Internal (45%)	Resource Referral (41%)	Homeless Services - Internal (8%)	



# Insight: CAX Partner Organizations & Connection Services (Cont.)



# **Insight: CAX Partner Organizations & Connection Services (Cont.)**

#### **Supporting Data:**

- 1. Summarized table of findings
- 2. Power BI Dashboard screenshot provided in deck separate Power BI document provided in unison with slides

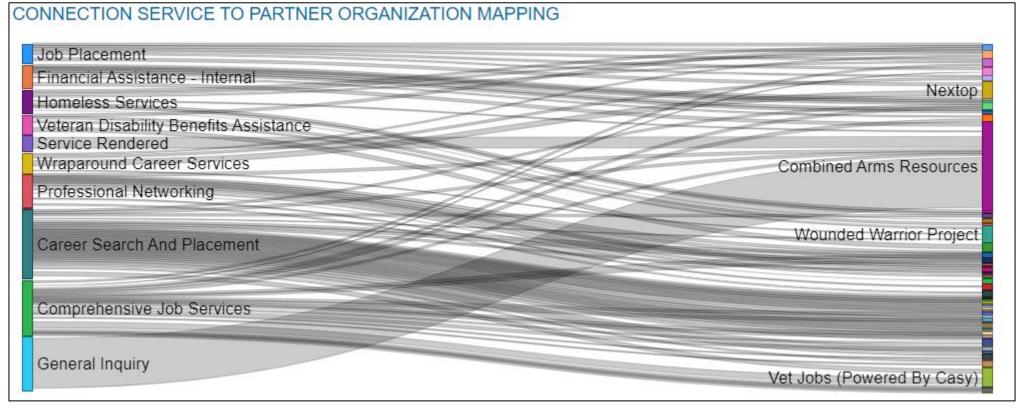
Top 3 Connection Resources by Connection Service (% of Total)							
Connection Service Total Cases # of Resource		# of Resources	#1 Connection Resource	#2 Connection Resources	#3 Connection Resources		
General Inquiry	5,077	1	Combined Arms Resources (100%)				
Comprehensive Job Services	2,264	19	Vet Jobs (Powered By Casy) (39%)	Casy) (39%) Hire Heroes Usa (20%) Workforce Opportunity Service			
Career Search And Placement	1,718	31			Goodwill Houston Veteran Services (8%)		
Professional Networking	1,452	1,452 11 Lone Star Veterans Associ		Houston Veterans In Business (28%)	Travis Manion Foundation (21%)		
Wraparound Career Services	1,355	4	Nextop (57%)	Wounded Warrior Project (27%)	nded Warrior Project (27%)  Us Veterans Initiative (11%)		
Service Rendered	1,325	1	Combined Arms Resources (100%)				
Veteran Disability Benefits							
Assistance	1,228	4	Texas Veterans Commission (57%)	Wounded Warrior Project (37%)	Fort Bend County Veteran Services (4%)		
Homeless Services	1,101	7	Combined Arms Resources (36%)	Hope For The Warriors (27%)	Career And Recovery Resources Inc. (13%)		
Financial Assistance - Internal	1,096	7	Combined Arms Resources (54%)	Mission United North Texas (39%)	Harris County Veteran Services Office (3%)		
Job Placement	930	6	Nextop (61%)	Ser Houston (15%)	Workforce Opportunity Service (9%)		



# **Insight: CAX Partner Organizations & Connection Services (Cont.)**

#### **Supporting Data:**

- 1. Summarized table of findings
- 2. Power BI Dashboard screenshot provided in deck separate Power BI document provided in unison with slides

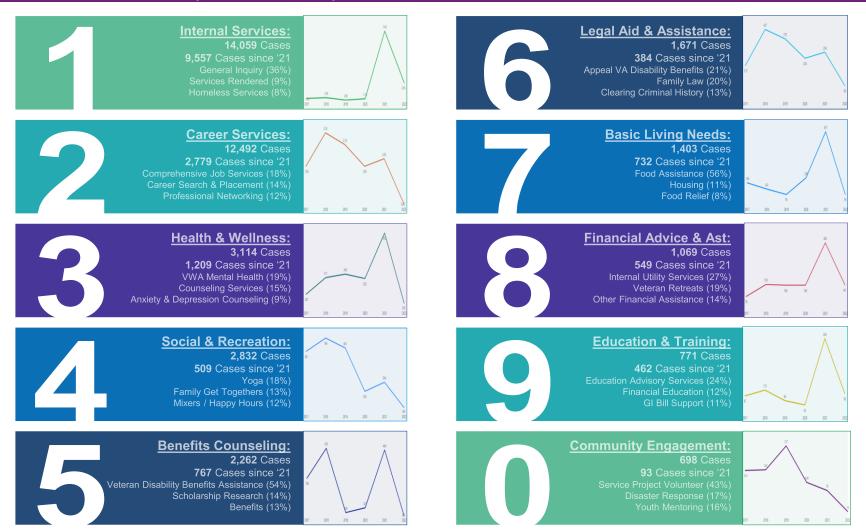






### **Insight: CAX Service Groups & Connection Services**

#### Top 10 Service Groups, their Case Loads, and Connection Services





Case Load = Distinct Count of Case IDs; Partner Organizations = Connection Resource; all data coming from Case File All trend lines contain 2022 data, which is not complete. 2022 Data only through March 2022

# **Insight: CAX Service Groups & Connection Services (Cont.)**

#### **Supporting Data:**

- 1. Summarized table of findings
- 2. Power BI Dashboard screenshot provided in deck separate Power BI document provided in unison with slides

Top 3 Connection Services by Service Group (% of Total)							
Service Group	Total Cases # Distinct Services		#1 Connection Service	#2 Connection Service	#3 Connection Service		
Internal Services	14,059	47	General Inquiry (36%)	General Inquiry (36%) Service Rendered (9%) Home			
Career Services	12,492	51	Comprehensive Job Services (18%)	Career Search And Placement (14%)	Professional Networking (12%)		
Health & Wellness	3,114	63	Vwa Mental Health (19%)	Counseling Services (15%)  Anxiety & Depression Counseling (9%)			
Social & Recreation	2,832	30	Yoga (18%)	Family Get Togethers (13%)	Mixers / Happy Hours (12%)		
Benefits Counseling	2,262	13	Veteran Disability Benefits Assistance (54%)	Scholarship Research (14%)	Benefits (13%)		
Legal Aid & Assistance	1,671	13	Appeal Va Disability Benefits (21%)	Family Law (20%)	Clearing Criminal History (13%)		
Basic Living Needs	1,403	14	Food Assistance (56%)	Housing (11%)	Food Relief (8%)		
Financial Advice & Assistance	1,069	20	Internal Utility Services (27%)	Veteran Retreats (19%)	Other Financial Assistance (14%)		
Education & Training	771	19	Education Advisory Services (24%)	Financial Education (12%)	Gi Bill Support (11%)		
Community Engagement	698	7	Service Project Volunteer (43%)	Disaster Response (17%)	Youth Mentoring (16%)		



## **Insight: Supply vs. Demand**

#### **Analysis Approach:**

- 1. Joined the resources offered.csv file to CA-TEXAS-cases.csv file via Service ID and resource id.
- 2. Joining on Service ID and resource\_id allowed to properly align the Connection Resource and Connection Services threshold values.
- 3. Created a "MM-YYYY" date format off of the Case Create Date to allow for proper monthly grouping.
- 4. Removed all Connection Resources and Connection Services that reported a threshold of "0" or "null" values.
- 5. Counted unique Case Ids by Year, Month, Connection Resource, and Connection Service (unique grouping).
- 6. Compared the count of unique Case Ids to that of the Max Threshold for the unique grouping.
- 7. Generated a Threshold % metric, which equals the % reached against the threshold.
- 8. Generated an Availability % metric, which details the % of potential onboarding a unique grouping could continue to take on.
- 9. Generated a Threshold Flag for when Threshold % was >= 100%.
- 10. Filtering/Sorting by the Threshold Flag, able to discern which services and Partner Organizations were going over the thresholds.
- 11. Summarized into repeat exceeding of threshold cases to point out the areas that have recurring threshold issues.

#### **Key Insights:**

- While not widespread, monthly threshold exceeding does occur, especially in prevalent Service Groups.
- On a monthly average, a threshold is exceeded anywhere from ~1% (2017-2020) to ~1.3% (2021-2022) of the time, which is intermittent. Although sparse, threshold exceeding has been seen more recently.
- While thresholds are exceed on a sporadic occasions, we do see some happening more than others, especially more recently (2021-2022): Combined Arms Resources General Inquiry, Texas Veterans Commission Veteran Disability Benefits Assistance, Combined Arms Resources Basic Needs.

#### **Actionable Suggestion(s):**

• The below information on repeat threshold exceeding can help prioritize areas of concern going forward, whether it's particular Service Groups, Connection Resources, Services, etc. Ultimately, assisting with areas to initiate threshold expansion conversations, provide additional evidence of internal support claims, or prioritize areas where new Partner Organization relationships could be most beneficial to the end clients / Veterans.



# **Insight Summary: Supply vs. Demand (Cont.)**

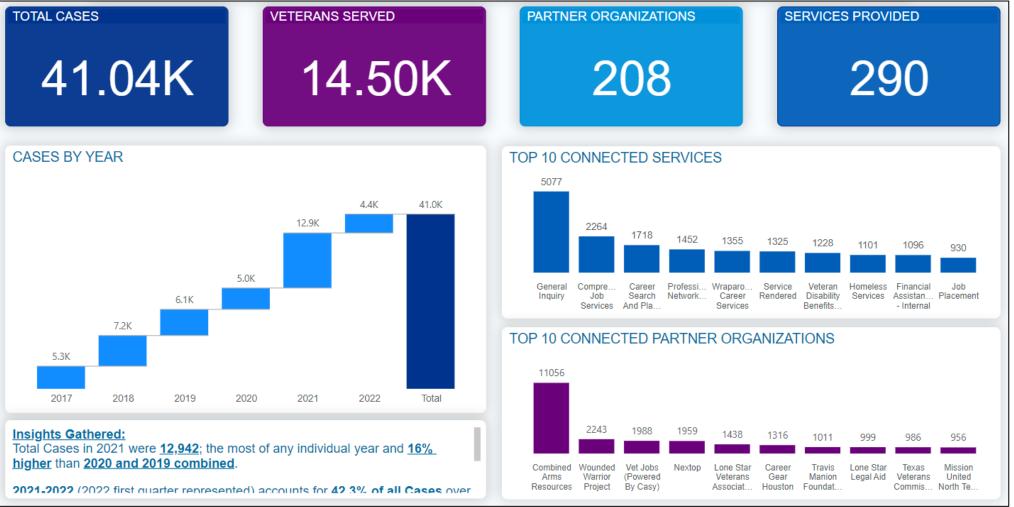
Month	Service Group	Service Category	Connection Resource	Connection Service	Count of Case IDs	Threshold (Max)	Threshold %	Availability
2021March	Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	915	100	915	-815
2021April	Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	879	100	879	-779
2021August	Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	689	100	689	-589
2021Novemb	er Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	448	100	448	-348
2021February	Career Services	Career Services	Nextop	Wraparound Career Services	146	40	365	-265
2022March	Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	322	100	322	-222
2021October	Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	318	100	318	-218
2022February	Benefits Counseling	Benefits Counseling - Other	Texas Veterans Commission	Veteran Disability Benefits Assistance	94	30	313	-213
2021June	Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	279	100	279	-179
2021Sentemb	per Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	269	100	269	-169
2021July	Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	254	100	254	-154
2021May	Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	239	100	239	-139
LOZIMAY	internal services	Nesource Neterral	Combined Arms Resources	General inquity	233	100	233	133
2021Septemb	per Internal Services	Internal Services	Combined Arms Resources	Basic Needs	46	20	230	-130
2021Novemb	er Internal Services	Internal Services	Combined Arms Resources	Basic Needs	42	20	210	-110
2021April	Basic Living Needs	Food Assistance	Houston Food Bank	Food Assistance	185	100	185	-85
2022March	Benefits Counseling	Benefits Counseling - Other	Texas Veterans Commission	Veteran Disability Benefits Assistance	52	30	173	-73
2021October	Internal Services	Internal Services	Combined Arms Resources	Basic Needs	33	20	165	-65
2021October	Career Services	Career Services	Still Serving Veterans	Career Search And Placement	16	10	160	-60
2022January	Internal Services	Internal Services	Combined Arms Resources	Basic Needs	30	20	150	-50
2021August	Basic Living Needs	Food Assistance	Combined Arms Resources	Internal Food Resources	43	30	143	-43
2021Sentemb	per Health & Wellness	Health & Wellness	Combined Arms Gym	Functional Fitness	17	12	142	-42
2022January	Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	137	100	137	-37
2022January	Benefits Counseling	Benefits Counseling - Other	Texas Veterans Commission	Veteran Disability Benefits Assistance	41	30	137	-37
2022March	Internal Services	Resource Referral	Harris County Veteran Services Office	Financial Assistance - Internal	13	10	130	-30
	er Internal Services	Resource Referral	Combined Arms Resources	General Inquiry	125	100	125	-25
2022March	Career Services	Career Services	Still Serving Veterans	Career Search And Placement	12	10	120	-20
2021April	Career Services	Career Services	Texas Veterans Commission	Employment-career Search And Placement	33	30	110	-10
2022February		Resource Referral	Combined Arms Resources	General Inquiry	105	100	105	-5
2021October	Financial Advice & Assistance	Financial Advice & Assistance - Other	Bakerripley	Rental Assistance - Internal	10	10	100	0
2021Canta	or Donofite Counceling	Panafita Counciling Other	Harris County Votoron Coming - Office	Donofito	10	10	100	0
	per Benefits Counseling	Benefits Counseling - Other	Harris County Veteran Services Office	Benefits Benefits	10	10	100	0
2022January	Benefits Counseling	Benefits Counseling - Other	Harris County Veteran Services Office	Benefits	10			0
2022February		Benefits Counseling - Other	Harris County Veteran Services Office			10	100	0
2022February	Career Services	Career Services	Vet Jobs (Powered By Casy)	Career Search And Placement	20	20	100	U



# **Insight Summary: Supply vs. Demand (Cont.)**

Moi	th Service Group	Service Category	Connection Resource	Connection Service	Count of Case IDs	Threshold (Max)	Threshold %	Availability 9
017June	Career Services	Career Services	Ser Houston	Job Placement	48	5	960	-860
017July	Career Services	Career Services	Ser Houston	Job Placement	24	5	480	-380
017August	Career Services	Career Services	Ser Houston	Job Placement	15	5	300	-200
017Septembe	r Career Services	Career Services	Ser Houston	Job Placement	14	5	280	-180
017October	Career Services	Career Services	Ser Houston	Job Placement	13	5	260	-160
017June	Career Services	Career Services	Career And Recovery Resources Inc.	Job Placement	24	10	240	-140
2017May	Career Services	Career Services	Ser Houston	Job Placement	12	5	240	-140
018June	Career Services	Career Services	Workforce Opportunity Service	Comprehensive Job Services	48	25	192	-92
018July	Career Services	Career Services	Career And Recovery Resources Inc.	Comprehensive Job Services	19	10	190	-90
018August	Career Services	Career Services	Career And Recovery Resources Inc.	Comprehensive Job Services	19	10	190	-90
018April	Career Services	Career Services	Career And Recovery Resources Inc.	Comprehensive Job Services	16	10	160	-60
2018May	Career Services	Career Services	Workforce Opportunity Service	Comprehensive Job Services	39	25	156	-56
017Septembe	r Career Services	Career Services	Ser Houston	Wraparound Career Services	15	10	150	-50
017October	Career Services	Career Services	Ser Houston	Wraparound Career Services	15	10	150	-50
018April	Career Services	Career Services	Workforce Opportunity Service	Comprehensive Job Services	34	25	136	-36
018August	Career Services	Career Services	Workforce Opportunity Service	Comprehensive Job Services	33	25	132	-32
020July	Career Services	Career Services	Goodwill Houston Veteran Services	Career Search And Placement	13	10	130	-30
019June	Benefits Counseling	Benefits Counseling - Other	Harris County Veteran Services Office	Benefits	13	10	130	-30
018Septembe	r Career Services	Career Services	Career And Recovery Resources Inc.	Comprehensive Job Services	12	10	120	-20
019February	Legal Aid & Assistance	Legal Aid & Assistance	Lone Star Legal Aid	Family Law	18	15	120	-20
018February	Career Services	Career Services	Workforce Opportunity Service	Comprehensive Job Services	30	25	120	-20
018July	Career Services	Career Services	Workforce Opportunity Service	Comprehensive Job Services	30	25	120	-20
019August	Career Services	Career Services	Goodwill Houston Veteran Services	Comprehensive Job Services	17	15	113	-13
018June	Internal Services	Resource Referral	Hope For The Warriors	Homeless Services	17	15	113	-13
018October	Career Services	Career Services	Career And Recovery Resources Inc.	Comprehensive Job Services	11	10	110	-10
018February	Internal Services	Resource Referral	Combined Arms Resources	Internal Rent Referral	33	30	110	-10
017Septembe	r Internal Services	Resource Referral	Grace After Fire	Internal Disaster Financial Relief	27	25	108	-8
017Novembe	r Career Services	Career Services	Workforce Opportunity Service	Comprehensive Job Services	27	25	108	-8
017Decembe	Career Services	Career Services	Workforce Opportunity Service	Comprehensive Job Services	27	25	108	-8
018January	Career Services	Career Services	Workforce Opportunity Service	Comprehensive Job Services	27	25	108	-8
018April	Benefits Counseling	Va Benefits - Wwp	Hope For The Warriors	Scholarship Research	16	15	107	-7
020February	Career Services	Career Services	Career Gear Houston	Professional Networking	21	20	105	-5
2018May	Career Services	Career Services	Career And Recovery Resources Inc.	Comprehensive Job Services	10	10	100	0
017October	Internal Services	Resource Referral	Career And Recovery Resources Inc.	Homeless Services	20	20	100	0
018April	Health & Wellness	Mental Wellness	Give An Hour	Counseling Services	5	5	100	0
019April	Career Services	Career Services	Goodwill Houston Veteran Services	Career Search And Placement	10	10	100	0
020February	Benefits Counseling	Benefits Counseling - Other	Harris County Veteran Services Office	Benefits	10	10	100	0
2020Novembe	r Career Services	Entrepreneurship	Texas Veterans Commission Entrepreneur Progra	Entrepreneurship	20	20	100	0
					802	565	175	-75

# Power BI Dashboard – KPI Overview / CAX Summary



- Total Cases in 2021 were 12,942; the most of any individual year and 16% higher than 2020 and 2019 combined.
- 2021-2022 (2022 first quarter represented) accounts for 42.3% of all Cases over Combined Arms' history.
- Oddly, General Inquiry is a recent add to the Connected Service catalog, and still has the most Cases in total; added in 2021.
- Veterans Served =
   Unique Count of Master
   IDs, which were believed
   to be tied to a single
   individual

## Power BI Dashboard - KPI 2021 Comparison



- 2021-2022 (2022 first quarter represented) accounts for 42.3% of all Cases over Combined Arms' history. This directly showcases the growth that Combined Arms has experienced since 2021.
- Total number of Veterans Served, a count of distinct Master IDs, has been 14.50K in Combined Arms' history. With the Total count of Veterans Served since 2021 being 10.22K (70.5%).
- Since 2021, Combined arms has expanded their coverage of Services by increasing their number of Partner Organizations from 100 distinct Partner Organizations to 182 distinct Partner Organizations. With that, their distinct Services grew from 212, pre-2021, to 234 in 2021 and beyond.

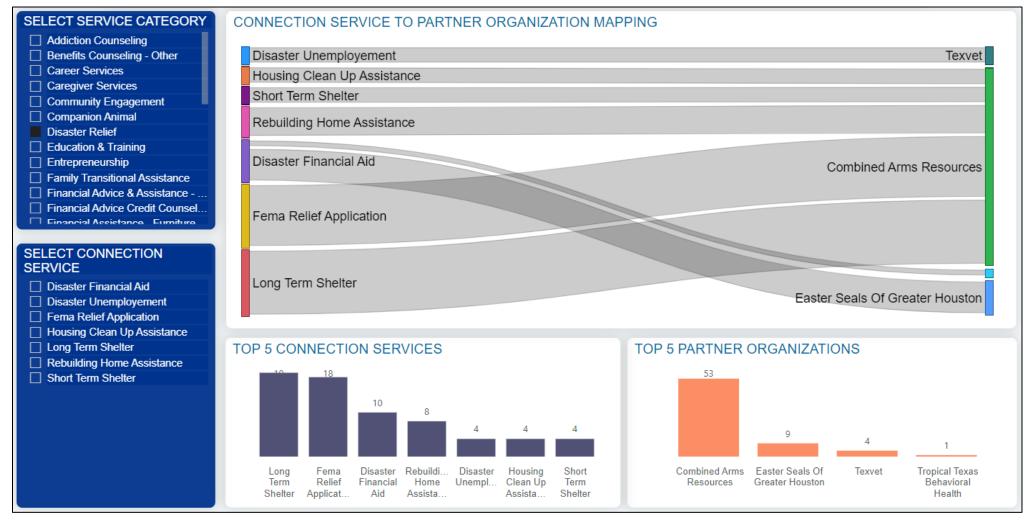
# Power BI Dashboard – Partner Organization & Connection Services Breakdown



- Majority of activity around Cases, when focusing on Services Groups, is witnessed within Internal Services, Career Services, Health & Wellness, Social & Recreation, as well as Benefits Counseling.
- When focusing on Service Categories, the most Cases are seen within Resource Referrals, Career Services, Social & Recreation, Internal Services, and Mental Wellness.
- Outside of General Inquiry, Combined Arms Resources provides Services that include Financial Assistance, Homeless Services, Internal Utility Services, Rent Referrals, Basic Needs, and more.
- Across all Partner
   Organizations, outside of
   General Inquiry, it
   appears that the
   Connection Services with
   the most Cases are
   centered around Career
   Services / Job
   Placement.



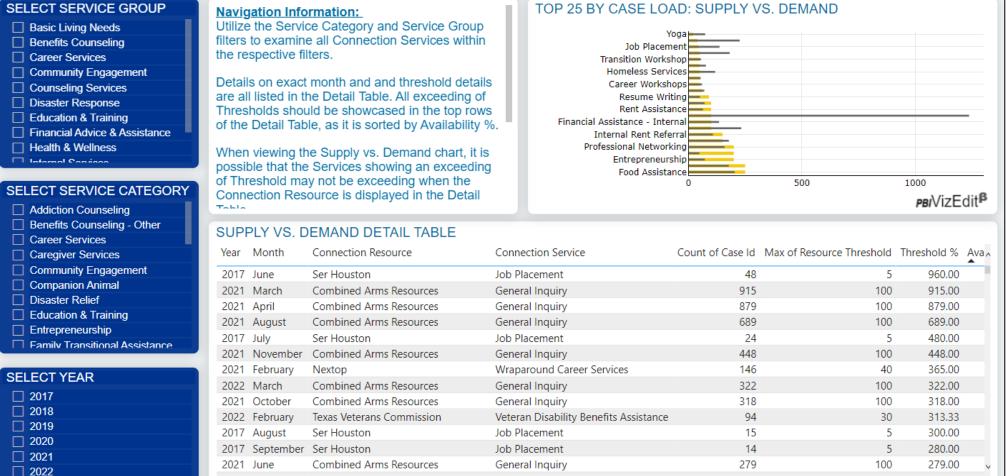
# **Power BI Dashboard – Partner Organization to Connection Service Exploration**



- No specific key insights on this slide – more exploratory use case within the dashboard itself
- Filtered for Disaster Relief only to show a specific example in the Sankey Diagram



# **Power BI Dashboard – Supply vs. Demand for Connection Services**



#### **Key Insights:**

- Utilize the Service Category and Service Group filters to examine all Connection Services within the respective filters.
- Details on exact month and threshold details are all listed in the Detail Table. All exceeding of Thresholds should be showcased in the top rows of the Detail Table, as it is sorted by Availability %.
- When viewing the Supply vs. Demand chart, it is possible that the Services showing an exceeding of Threshold may not be exceeding when the Connection Resource is displayed in the Detail Table.
- Routinely, since 2021, Connection Services that have regularly exceeded their respective Thresholds include the following: General Inquiries, Career Services (i.e. Job Placement, Career Search And Placement, etc.), Basic Needs, Veteran Disability Benefits Assistance/Benefits, Financial Assistance, and Food Assistance.



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#### Additional assumptions:

- Insights and recommendations uncovered in the analysis are based on assumptions defined between KPMG and Combined Arms, and therefore directional in nature.
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## **Terminology Data**

- Data Types: Data may come in a variety of forms, the most common being numerical (e.g., 1 or 3.14159) or categorical (e.g., "False" or "Male"). Other data types are date, time, unstructured (e.g., documents or free text).
- **EDA**: Exploratory Data Analysis identifying key characteristics of a dataset, summarizing the dataset attributes, looking for patterns, examining cross-sections of the data, etc. and typically involves visualization.
- Data Cleaning: Data cleaning usually arises after an assessment of quality and consistency in the data. After this assessment,
  certain actions may need to be taken to address issues or to prepare the data for a specific task. This may be tasks such as filling in
  missing data, identifying duplicate entries, and identifying outliers. It may also include processes such as transforming, joining, or
  aggregating data.
- **Data Transformation**: Certain statistical or algorithmic analyses assume certain characteristics of the data (e.g., two attributes are independent). To meet those assumptions, transformations such as log transformation or dimensionality reduction may be necessary.
- **Filtering**: Many business use cases may only be answered by a relevant subset of data. Data filtering techniques generally use logical and conditional statements to obtain a specific subset of a larger dataset that can then be used to appropriately address the problem.
- Aggregation: Data may be aggregated to roll attributes up to a higher hierarchical level. For example, if a log is keeping track of
  when a user accesses a page, we may aggregate (in this case, a sum) the number of times they visited at the daily level. Other
  aggregations may be means, majority votes, minimum values, etc.
- **Joining**: Data may be spread across many datasets and need to be consolidated. Joining datasets on a unique ID or after aggregation allows the tying together of diverse data sources for further analysis.





# Thank you



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