ART Gallery Report 0509
Distribution of Population Exit Scores by Domain
Population-based Self-Sufficiency Outcomes Matrix Report

EXECUTIVE SUMMARY:

This report shows how the self-sufficiency outcomes matrix scores are distributed across the entire population of clients of a program. Instead of examining on a per-client basis, examining the entire distribution and its characteristics can lend important insight into the population a program is serving. Examining the distribution of the population at exit can show in which domains clients are more self-sufficient and in which domains clients are less self-sufficient after program completion. Programming can then be tailored to support the needs of the population in specific domains to help future clients on the road to self-sufficiency. The object is therefore to see how self-sufficient the population is after leaving the program.

AUDIENCE:

This report is intended for program and agency staff to better understand the needs and outcomes of the population they are serving. It is also intended to be shared externally with other agencies in the Continuum of Care to coordinate with other programs and agencies to help serve the needs of the population. The information contained within the report can also provide a quantitative picture of the population after exit as one part of a narrative description.

FREQUENCY:

This report should be run on a regular basis to determine if the addition of new clients changes the overall outcomes of the population, but the regularity is dependent upon the rates at which clients enter and leave the program. Programs with a higher turnover rate should run the report more frequently than programs with a lower turnover rate. The report values will not change if no new clients are added and no clients have left.

PURPOSE:

The purpose of the report is to clearly depict the distribution of client exit matrix values in each domain of the self-sufficiency outcomes matrix (SSOM) through numeric, graphic and statistical representation. The report also provides data completeness information so that a program is able to remedy missing data relevant to the report. A section of the report is devoted to understanding the measures provided so that program staff may understand the results without prior statistical knowledge. Increased familiarity with the SSOM population-based reports can also help to understand concepts in more advanced research and statistics in a more intuitive way. The report can be run for different time periods, so that programs can see the scores of the current population and compare to past populations to see if the outcomes are changing.

NOTE: The Self-Sufficiency Outcomes Matrix is designed as a long-term measurement instrument to measure a client's transition to self-sufficiency over time. For this report to function accurately there should only be one matrix record per person per reporting period for the program selected. The client detail tab gives visibility to any multiple records per client occurring during the reporting period.

INSTRUCTIONS:

The easiest way to start using this report is to navigate to the automapper. This is a folder that has the reports automatically mapped to your site, so that you don't have to map them yourself. You can navigate to the automapper as shown in Figure 2.1 below:

Figure 2.1
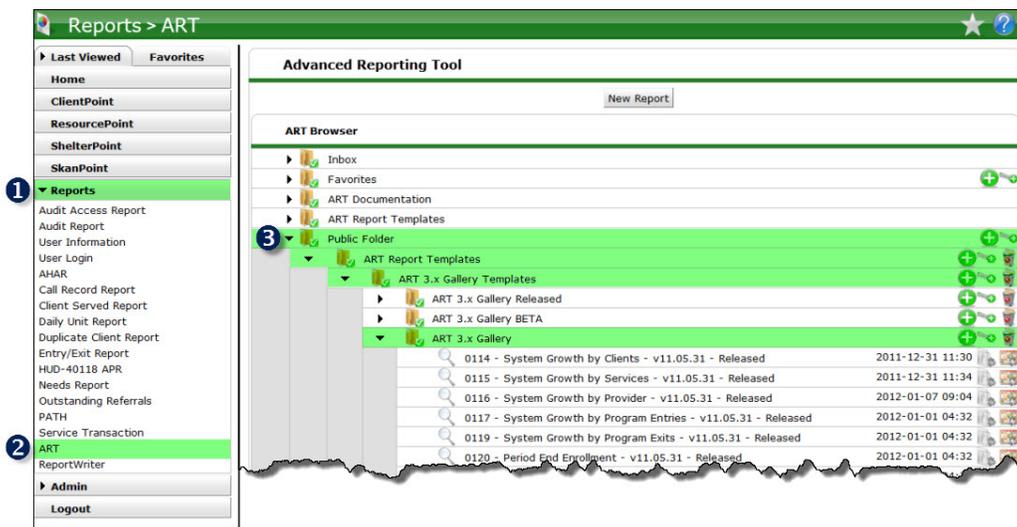
Requests for additional information concerning the report function/design should be directed to Bowman Systems' Customer Support Specialist (CSS) staff.
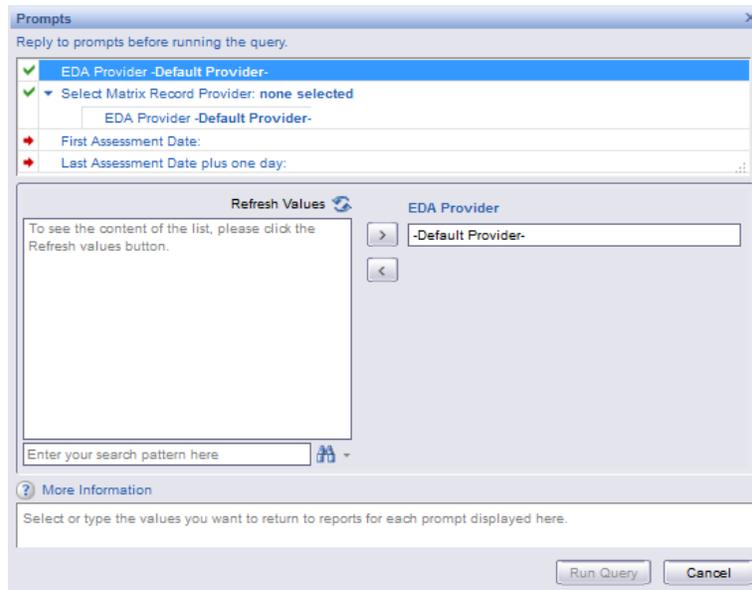
Diagram 1

The four user prompts contained in this report are:

1. **EDA Provider:** The user should select the EDA provider to run the report as, or leave it at the "-Default Provider-" if the default has the appropriate security level.

2. **Select Matrix Record Provider:** Click the "refresh list" icon and wait for the left window to refresh. Now select the provider to include by highlighting it in the left window and moving it into the right window using the right selection arrow. **Select Matrix Record Provider:** Click the "refresh list" icon and wait for the left window to refresh. Now select the provider to include by highlighting it in the left window and moving it into the right window using the right selection arrow.

3. **First Assessment Date:** The user should enter (or select from the calendar) the date back to the earliest assessments the user wants to include. Assessments will be included from this date to the last assessment date. The value selected is retained as the default for the next time the report is run.

4. **Last Assessment Date plus one day:** The user should enter (or select from the calendar) *the day after* the date of to the latest assessments the user wants to include. Example: If the last date of the assessments to be included is 9/30/09, the user should enter 10/01/09 at the prompt. Assessments will be included from the first assessment date to the day before the date entered. The value selected is retained as the default for the next time the report is run.

How to read: The report contains 4 Tabs. Each Tab is a separate sub-report containing three sections:

- **Report Header:** The header contains the title of the report, and specifies any date parameters. When running the report in "modify" view, the header is only visible in print/page layout mode.
- **Report Footer:** The report footer contains the title of the report, the name of the sub-report, the page number, the version number, and the date/time the report was run /printed. Like the header, the footer is only visible in print mode when the report is run in modify view.
- **Report Body:** The Report Body is the main section of the report where the reports data is displayed in a variety of different chart and graph formats.
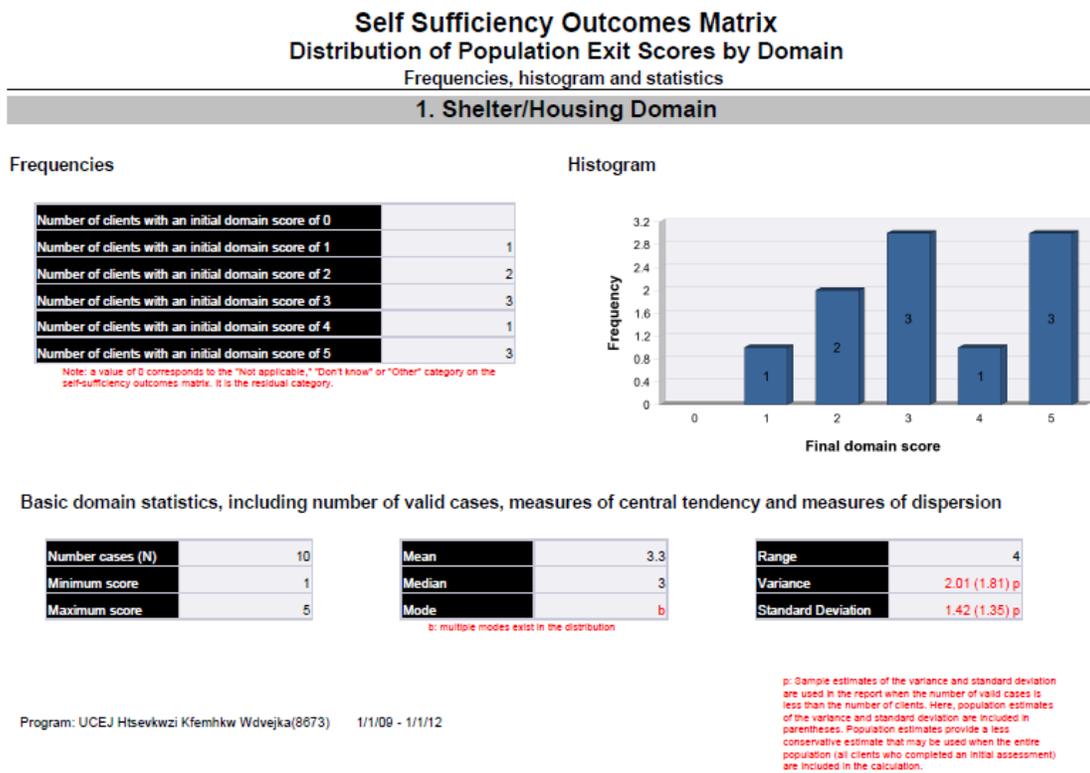
Self Sufficiency Outcomes Matrix
Distribution of Population Exit Scores by Domain
Frequencies, histogram and statistics

1. Shelter/Housing Domain

Frequencies

Number of clients with an initial domain score of 0	
Number of clients with an initial domain score of 1	1
Number of clients with an initial domain score of 2	2
Number of clients with an initial domain score of 3	3
Number of clients with an initial domain score of 4	1
Number of clients with an initial domain score of 5	3

Note: a value of 0 corresponds to the "Not applicable," "Don't know" or "Other" category on the self-sufficiency outcomes matrix. It is the residual category.

Histogram

Basic domain statistics, including number of valid cases, measures of central tendency and measures of dispersion

Number cases (N)	10	Mean	3.3	Range	4
Minimum score	1	Median	3	Variance	2.01 (1.81) p
Maximum score	5	Mode	b	Standard Deviation	1.42 (1.35) p

b: multiple modes exist in the distribution

p: Sample estimates of the variance and standard deviation are used in the report when the number of valid cases is less than the number of clients. Here, population estimates of the variance and standard deviation are included in parentheses. Population estimates provide a less conservative estimate that may be used when the entire population (all clients who completed an initial assessment) are included in the calculation.

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Diagram 2

Tab A – Frequencies, histogram and statistics (Diagram 2): This tab contains a snapshot of the distribution of exit scores for each domain. Each domain has its own section, headed by the name of the domain, in which the information is contained. This includes a numeric picture given by the frequency of each exit value for clients, a graphic representation of the distribution by a histogram and a statistical representation of the distribution of each domain by several measures of central tendency and dispersion (described below). This tab also includes the program for which the data are displayed.

- **Frequencies:** For a given domain, the "Frequencies" table shows how many people have an exit score of 1, how many have an exit score of 2, etc. The number of clients who have a 6, which is the "Other" category, is included, though those who have a 6 are not included in the statistical calculations describing the distribution, since the label of 6 is not part of the ordinal scale on which the other scores are based.

- **Histogram:** A graphic representation of the "Frequencies" table, where the *x* (horizontal) axis shows the score (1-6) and the *y* (vertical) axis shows how many people have an exit score of 1, how many have an exit score of 2, etc. Again, the number of clients who have a 6, which is the "Other" category, is included, though those who have a 6 are not included in the statistical calculations describing the distribution, since the label of 6 is not part of the ordinal scale on which the other scores are based.
- **Basic domain statistics:** These measures provide a statistical means of describing the distribution of each domain so that they can be more easily summarized and compared. Measures of central tendency (e.g., mean, median and mode) describe the location of the center of the distribution, while measures of dispersion (e.g., range, variance and standard deviation) describe how the distribution is spread out.

Self Sufficiency Outcomes Matrix
Distribution of Population Exit Scores by Domain
Client-level data

8. Health Care Coverage Domain

Client information

Client Id	Matrix Record Id	Final Score
52224	7869	5
107824	5948	3
125938	8043	2
128644	7885	3
150042	5970	3
247533	3653	3
348411	5851	3
348418	5854	3
416955	8682	3
426102	5916	3
Number of cases		10

- 10 out of 10 clients have matrix data entered for the Health Care Coverage domain and are included in the statistics.

- No clients have the value for the Health Care Coverage domain coded as 'Other'(0).

- No clients have null data for the Health Care Coverage domain.

Note: This tab contains only data completeness information pertinent to the number of valid cases. It is not a comprehensive review of data quality.

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Diagram 3

Tab B – Client-level data (Diagram 3): This tab contains: Each domain has its own section, headed by the name of the domain, in which the information is contained. It shows how many clients have data for the domain that are included in the statistics in Tab A, how many clients have values of 6 (Other) for the domain, and how many clients have null data for the domain. This tab also includes the program for which the data are displayed at the bottom of each domain's section.

- **Client information:** Gives the client identification number and the exit score of each client for the domain. If the exit score is null for a particular client, the cell where the exit score would be is colored red to draw attention to the missing data. At the bottom of the table is the number of cases (clients) that have data useable for calculation in the statistics in Tab A.
- **Matrix Record Id:** Gives the Matrix Id number for each client. There should be only one Matrix Record per client per program and multiple records during the reporting period are highlighted in yellow.

- **Summary data statements:** The first statement gives the number of clients out of the total number of clients who have useable data in the domain for calculations of the statistics in Tab A. The second statement gives the number of clients who have a value of 6 (Other) for that domain. The third statement gives the number of clients who have null data for the domain.

Self Sufficiency Outcomes Matrix
Distribution of Population Exit Scores by Domain
Definitions

Term	Explanation
Population	The entire group of interest in a statistical analysis. For example, everyone who is served by a program. In statistical analysis, usually a sample, or subset, of the population is drawn to make inferences about the entire population. In ServicePoint, data are collected on everyone in the program. This is called a census, and it means that we can have population data (the population being everyone who is served) as opposed to sample data.
Distribution	For data that are observed, as we have here, a distribution shows the frequency of each value of the variable occurring in the data. The matrix domains, each of which can be thought of as a variable, have possible values of 1 through 5. Therefore the distribution of each domain is how many 1s there are, how many 2s, etc.
Measures of central tendency	Numbers that describe the middle, or expected value of a distribution. The measures of central tendency included in the report are the mean, the median, and the mode.
Measures of dispersion	Numbers that describe how the distribution is spread out, the variability of the distribution. For example, if the mean is 3, are all the values in the distribution 3? Or is the distribution comprised of 1s and 5s? Measures of dispersion included in

Diagram 4

Tab C – Definitions (Diagram 4): This tab contains: A list of terms useful for understanding population-based reports and an explanation of each term.

Self Sufficiency Outcomes Matrix
Distribution of Population Exit Scores by Domain
Additional Information

User Prompt Field	Value(s) Selected
First Assessment Date:	1/1/00
Last Assessment Date plus one day:	9/17/09
Select Matrix Record Provider:	Bowman Consulting Group (2)

Providers Reporting Information	Client Count
Bowman Consulting Group (2)	3

Diagram 5

Tab D – Additional Information (Diagram 5): This tab is provided as a reference to the user running the report and lists the parameters specified in the user prompts, as well as the client count for the provider.

TECHNICAL NOTES:

1. You must have ART version 2.4.2 or above to run this report, as the matrix universe is not available in prior ART versions. The ART version number is available in the BusinessObjectsXI window as the first of the bullet points once you log in to ART.
2. While all data from the matrix are included in the histograms, the data used to calculate the statistics are limited to answer categories 1-5, omitting the "Other" or "N/A" category. While technically coded as a "6," this category has no substantive place in the domain order and is therefore excluded. If one or more cases in the report are excluded from the calculation of the statistics because the category is coded as a "6," an alerter to that effect will appear under the block that contains the "Number of cases (N)" statistic.
3. When considering null data, be aware that:
   a. This report counts a client as null only if that client has a final matrix where a particular field is null. If a client has been served during the time period and should have a final matrix assessment, but does not, that client is not included in the report and therefore is not included in the count of null data.
   b. Only domains for which data are present will be displayed in the report.
4. In the picklist query, the Picklist List Name should be set to "ART Number Picklist" if you have db build # 1222 or above. (The db build # is available at the bottom of the ServicePoint screen once you log in.) This is an un-editable picklist that contains the integers 1-6, which are necessary to run this report. If your db build # is below 1222, the "Picklist List Name" query filter will show "ART Number Picklist" but you will not actually have the picklist and the report will not run correctly. However, you can run the ART report by changing the Picklist List Name through manually selecting a picklist that contains those integers. The picklist we recommend for these cases is "Grade Level." However, since these picklists can be modified, it is important to ensure the picklist contains the correct integers prior to running the report.

REPORT MODIFICATION

Users with ad-hoc ART licenses may wish to modify/customize this report to better suit their needs and purposes. When modifying an ART Gallery report such as this one, the user will need to make a copy of the original report into a different folder. This copy can be created either by using the "save as" feature or by clicking on the "organize" icon in folder view.

NOTE: The original un-modified version of this report is a template and is retained in ART Gallery Templates folder structure. These template folders are read-only and any reports must be copied to a location in the user's site (Favorites or Public Folders) then mapped to the site's data.

MAPPING OBJECTS

UNIVERSES: template_matrix_u, template_picklist_u

QUERY NAME	FIELD NAME	LOCATION/TYPE/USE		
BISdata	Client Id	Location:	Clients	
		Type:	System field	
		Use:	Result object	
	Matrix Answer Score	Location:	Matrix Measurements	
		Type:	System field	
		Use:	Result object	
	Matrix Question Name	Location:	Matrix Measurements	
		Type:	System field	
		Use:	Result object	
	Matrix Question Id	Location:	Matrix Measurements	
		Type:	System field	
		Use:	Result object	
	Matrix Record Id	Location:	Matrix Records	
		Type:	System field	
		Use:	Result object	
	Matrix Record Type	Location:	Matrix Records	
		Type:	System field	
		Use:	Result object	
	Matrix Record Provider	Location:	Matrix Records	
		Type:	System field	
		Use:	Result object	
	Matrix Record Date	Location:	Matrix Records	
		Type:	System field	
		Use:	Result object	
	Matrix Answer Short Description	Location:	Matrix Measurements	
		Type:	System field	
		Use:	Result object	
data1	Client Id	Location:	Clients	
		Type:	System field	
		Use:	Result object	
	Matrix Record Provider	Location:	Matrix Records	
		Type:	System field	
		Use:	Query filter	
	Matrix Record Date	Location:	Matrix Records	
		Type:	System field	
		Use:	Query filter	
	Matrix Record Type	Location:	Matrix Records	
		Type:	System field	
		Use:	Query filter	
picklist query	Picklist Value Name	Location:	Picklists	
		Type:	System field	
		Use:	Result object	
	Picklist List Name	Location:	Picklists	
		Type:	System field	
		Use:	Query filter	

REVISION HISTORY:

Version	Description of Changes
V11.04.13	Original version –BETA
V2	Revision: Adjusted so that scores of "6" report as "0" to count as Other in report. Added column for Matrix Record Id to Tab to show where multiple Matrix records have been entered with alerter for duplicate records. Added note that each client should have only one Matrix Record per program per reporting period for accurate calculation. Updated mapping instructions. Added Revision History.
V3	Revision: Updated language from "program" to "project" to meet 2014 Data Dictionary updates; added filter for Matrix name for Matrix Universe changes.