

## Chapter Four: Comparative Analysis

This chapter examines the HMIS solutions in a comparative framework. The functional and system activities are described in Chapter Two; the evaluation criteria are described in Chapter Three.

The comparative results in this chapter include a series of tables and graphs. In most cases, the same results are displayed in several formats to help the reader better interpret the results. The chapter includes sections for each of the following:

- ◆ Result scores summary.
- ◆ Functional activity category scores.
- ◆ Evaluation criteria summary.
- ◆ System characteristics evaluation.

## Result Scores Summary

Table 18 displays each solution's result scores by functional activity.

**Table 18: Result Scores Summary**

Functional Activity	AWARDS	CHIRP	ClientTrack	COMPASS	CSTAR	MAACLink	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
<b>Intake and Exit</b>											
Client Intake	3.64	3.82	4.16	3.75	3.65	3.59	4.40	3.40	4.03	3.57	2.94
Exit Interview	3.61	3.89	3.67	3.01	3.98	3.30	3.17	3.28	3.92	3.09	2.97
<b>Information and Referral</b>											
Program Eligibility	3.58	0.00	3.15	2.98	3.52	0.00	4.24	0.00	3.25	0.00	0.00
Information and Referral	3.23	2.85	3.93	3.42	3.34	3.23	4.38	3.32	3.90	3.63	2.59
Recording Client Moves	3.13	2.95	3.60	3.39	3.62	3.37	3.80	3.39	4.16	2.82	2.81
<b>Operations</b>											
Agency Accounting	4.67	0.00	4.67	4.19	2.56	3.36	3.61	3.19	3.92	3.28	0.00
Bed Register	3.13	2.61	3.89	0.00	3.63	3.23	3.28	3.51	4.05	2.96	2.56
Incident Management	3.41	0.00	0.00	0.00	3.45	2.83	0.00	2.22	0.00	3.90	0.00
<b>Client Assessments</b>											
Needs Assessment	3.25	3.75	4.16	3.30	3.50	3.71	4.23	3.21	3.86	3.45	2.79
Goal Setting	2.87	0.00	3.40	3.55	0.00	3.26	4.63	2.53	4.07	3.20	0.00
Service/Treatment Plan	3.18	3.53	4.06	3.75	3.70	3.73	4.35	3.40	4.05	3.26	2.74
<b>Services and Outcomes</b>											
Service Delivery	3.30	3.44	3.86	3.57	3.87	3.24	4.35	3.57	4.08	2.61	2.49
Services Tracking	3.24	2.92	3.76	3.59	4.27	3.31	3.83	3.18	4.06	3.23	2.68
Outreach	2.22	3.78	2.22	4.03	2.22	2.22	2.22	4.06	2.22	2.22	2.22
Progress Tracking	3.34	0.00	3.22	3.35	3.64	2.94	3.32	3.27	3.49	2.97	0.00
Outcomes Measurement	3.56	0.00	4.03	3.59	3.04	2.94	4.16	3.00	4.02	2.86	2.62
Follow-Up	3.14	3.81	4.18	3.40	3.94	3.48	3.54	3.33	3.68	3.31	3.23
<b>Reporting</b>											
Client Demographics	3.97	3.28	3.00	3.69	3.11	4.19	4.25	3.44	4.33	4.17	3.08
Aggregate Unduplicated	2.78	3.69	0.00	3.69	2.56	4.33	3.83	3.36	4.36	4.17	3.22
Client Intake & Exit	3.19	3.36	3.69	4.47	2.56	4.00	3.11	3.28	3.44	4.17	2.89
Services Rendered	3.19	2.81	3.97	4.14	3.53	4.33	3.69	3.28	4.33	4.17	2.89
Bed Register Capacity	3.61	0.00	4.25	0.00	2.61	0.00	0.00	2.94	4.33	0.00	2.39
Variety of Built-in Reports	3.69	3.58	3.15	4.56	4.31	3.61	4.07	3.42	4.14	3.83	2.75
Reports by Program	3.69	3.58	3.15	4.56	3.72	3.61	4.07	3.42	4.14	3.83	2.75
Custom Reports	0.00	4.01	3.00	0.00	2.94	4.33	3.58	0.00	4.31	3.33	2.39
<b>HUD APR</b>											
HUD Annual Progress Report	3.69	3.47	3.97	2.42	4.64	2.61	4.19	2.89	3.94	4.33	2.69
<b>Local System Administration</b>											
Agency Administration	3.69	2.14	4.08	2.14	3.39	4.44	4.83	2.94	4.08	4.67	2.47
Ability to Add Data Elements	1.56	2.39	4.42	2.06	3.19	0.00	4.50	1.56	2.47	4.00	4.42
Export Mechanisms	2.81	2.78	2.81	2.75	3.56	3.08	4.17	2.25	3.44	2.31	1.89

## Functional Activity Scores

### Intake and Exit

This category encompasses features that enable caseworkers to collect client information at intake and exit. ServicePoint scored the highest in the overall Intake and Exit category due to its combination of straightforward presentation, solid performance and high quantity of data elements. Though ServicePoint did not score the highest in either the intake or exit activities individually, it placed among the top three solutions in both activities. ClientTrack also scored high in this category due to its quick entry wizard that allows for automatic generation of a funding application. It also ensures input of all needed data through validation. CHIRP was considered the most intuitive tool and thus received high overall impression scores, but ranked lower in comprehensiveness.

MetSYS scored the highest for client intake because the process merged multiple features and remained intuitive. It also has the most advanced client search utility, which is counted as part of the intake process. C-STAR has a strong exit interview process, largely because of its direct flow. A user can access an exit interview screen with one click from the main menu.

Table 19 displays the lab evaluation scores for the Intake and Exit category, and each of its evaluation activities.

**Table 19: Intake and Exit Scores**

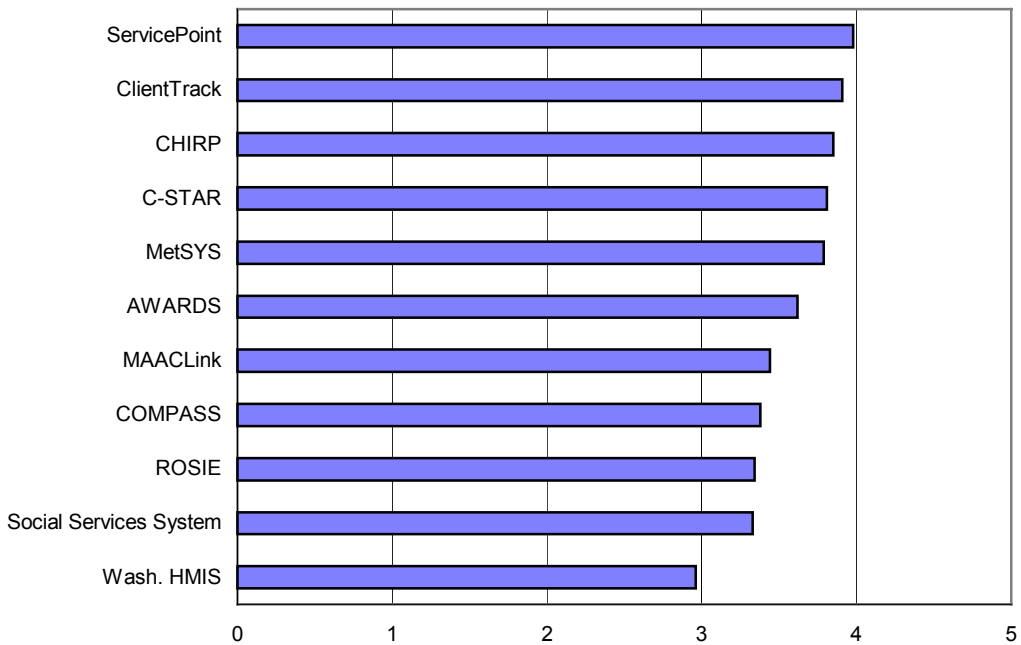
Functional Activity	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLInk	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
Client Intake	3.64	3.82	4.16	3.75	3.65	3.59	4.40	3.40	4.03	3.57	2.94
Exit Interview	3.61	3.89	3.67	3.01	3.98	3.30	3.17	3.28	3.92	3.09	2.97
Intake and Exit	3.62	3.85	3.91	3.38	3.81	3.44	3.79	3.34	3.98	3.33	2.96

Table 20 displays the scores for the Intake and Exit category by each of the evaluation criteria. The result scores (last column) are graphed in Figure 25.

**Table 20: Intake and Exit Scores By Evaluation Criteria**

Solution	Data Entry Required	Performance	Intuitiveness	Presentation	Flow	Average Ease Of Use	Data Elements	Features	Average Comprehensiveness	Overall Impression	Result Score
		Ease of Use Scores				Comprehensiveness Scores					
ServicePoint	medium	4.08	4.13	4.09	4.02	4.08	3.90	3.66	3.78	4.07	3.98
ClientTrack	medium	3.86	3.78	3.93	3.74	3.83	3.67	3.93	3.80	4.11	3.91
CHIRP	medium	3.94	4.35	3.80	4.00	4.02	3.33	3.44	3.38	4.15	3.85
C-STAR	medium	4.00	3.94	3.71	4.05	3.92	3.59	3.60	3.59	3.92	3.81
MetSYS	medium	3.97	3.79	3.88	3.73	3.84	3.50	3.78	3.64	3.88	3.79
AWARDS	medium	4.03	3.31	3.54	3.16	3.51	3.80	3.68	3.74	3.62	3.62
MAACLink	medium	3.71	3.76	3.57	4.01	3.76	2.90	3.04	2.97	3.60	3.44
COMPASS	low	3.87	3.58	3.94	3.83	3.80	2.76	2.93	2.85	3.49	3.38
ROSIE	medium	3.53	3.42	3.23	3.76	3.48	3.34	3.06	3.20	3.35	3.34
Soc. Serv. Sys.	medium	3.21	3.72	3.53	3.74	3.55	3.19	3.04	3.12	3.32	3.33
Wash. HMIS	low	3.61	3.56	3.03	3.32	3.38	2.27	2.51	2.39	3.10	2.96

**Figure 25: Intake and Exit Result Scores**



Bar graph displaying the Intake and Exit Result Scores in descending order: ServicePoint, ClientTrack, CHIRP, C-Star, MetSYS, AWARDS, MAACLink, COMPASS, ROSIE, Social Service Systems and Wash. HMIS.

## Information and Referral

This category looks at features that enable caseworkers to help clients access external resources. The results in this category were heavily affected by the absence of eligibility features in many of the solutions. Some of the solutions allowed the user to list eligibility requirements in a program description. MetSYS has the most integrated and fully functional eligibility feature and its interface uses both tabs and dropdowns to enable easy filtering for relevant services. MetSYS also uses a messaging system for communication among agencies. MetSYS received the highest ease of use and comprehensiveness scores.

ServicePoint ranked high for its ResourcePoint service directory system, which uses a hierarchical method to place resources into both broad and narrowly defined categories. It also incorporates quick lookups that give each agency rapid access to agencies most often used for referrals. ServicePoint also scored the highest in the activity of recording client moves between agencies and providing a platform for common updates to client records. ClientTrack also scored well in this category. Its referral tab makes the process intuitive and it is strong on performance. C-STAR's service tracking module incorporates external placements that resulted in a strong showing in this category. AWARDS has an entitlements section, which enables caseworkers to track a client's eligibility for external funding in various areas, but its referral activities did not score high.

Washington HMIS allows referrals to other agencies using the system with one click, but it does not record or present an abundance of information. As a stand-alone system, CHIRP records that a referral has been made, but it does not provide information or enable communication among agencies.

Table 21 displays the lab evaluation scores for the Information and Referral category, and each of its evaluation activities.

**Table 21: Information and Referral Scores**

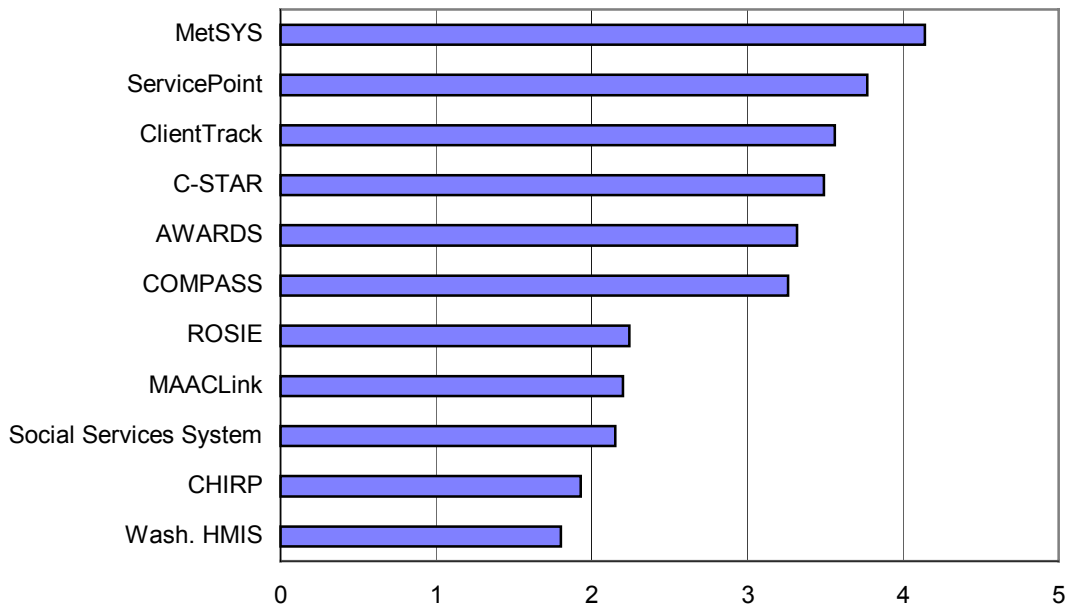
Functional Activity	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLink	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
Program Eligibility	3.58	0.00	3.15	2.98	3.52	0.00	4.24	0.00	3.25	0.00	0.00
Information and Referral	3.23	2.85	3.93	3.42	3.34	3.23	4.38	3.32	3.90	3.63	2.59
Recording Client Moves	3.13	2.95	3.60	3.39	3.62	3.37	3.80	3.39	4.16	2.82	2.81
Information and Referral	3.32	1.93	3.56	3.26	3.49	2.20	4.14	2.24	3.77	2.15	1.80

Table 22 displays the scores for the Information and Referral category by the evaluation criteria. The result scores (last column) are graphed in Figure 26.

**Table 22: Information and Referral Scores By Evaluation Criteria**

Solution	Data Entry Required	Performance	Intuitiveness	Presentation	Flow	Average Ease Of Use	Data Elements	Features	Average Comprehensiveness	Overall Impression	Result Score
		Ease of Use Scores				Comprehensiveness Scores					
MetSYS	medium	3.95	4.18	4.37	4.23	4.18	3.83	4.28	4.05	4.19	4.14
ServicePoint	medium	3.87	4.07	4.10	3.80	3.96	3.22	3.79	3.50	3.84	3.77
ClientTrack	medium	3.95	3.84	3.86	3.85	3.88	3.26	3.35	3.30	3.50	3.56
C-STAR	medium	3.96	3.35	3.80	3.65	3.69	3.38	3.46	3.42	3.37	3.49
AWARDS	medium	4.02	3.17	3.77	3.29	3.56	2.94	3.00	2.97	3.42	3.32
COMPASS	medium	3.37	3.35	3.73	3.62	3.52	2.99	2.89	2.94	3.33	3.26
ROSIE	low	2.51	2.19	2.29	2.47	2.36	2.14	2.04	2.09	2.26	2.24
MAACLink	low	2.57	2.50	2.58	2.67	2.58	2.01	1.84	1.92	2.10	2.20
Soc. Serv. Sys.	low	2.22	2.44	2.33	2.61	2.40	1.82	1.77	1.79	2.26	2.15
CHIRP	low	2.67	2.52	2.67	2.67	2.63	1.67	1.64	1.65	1.52	1.93
Wash. HMIS	low	2.46	2.53	2.31	2.06	2.34	1.16	1.25	1.20	1.86	1.80

**Figure 26: Information and Referral Result Scores**



Bar graph displaying Information and Referral Result Scores in descending order: MetSYS, ServicePoint, ClientTrack, C-STAR, AWARDS, COMPASS, ROSIE, MAACLink, Social Services Systems, CHIRP, and Wash. HMIS.

## Operations

This category looks at features that enable agencies, especially shelters, to manage daily activities. Agency accounting, bed register, and incident management were tested in this category. Five of the 11 solutions (AWARDS, Social Services System, C-STAR, MAACLink, and ROSIE) included functionality for all three activities. AWARDS was the highest scoring solution. It tracks Accounts/Receivables in a full general ledger and allows caseworkers to manage incidents at the agency level. It also received the highest marks for comprehensiveness. Social Services System was the strongest solution in managing incidents at the client level. The operations features are well organized and easy to use. Both Social Services System and AWARDS—the top two solutions in this category—contain full-featured human resources modules.

C-STAR scored the highest for performance and intuitiveness. Though its agency accounting tools are minimal, its strengths in shelter-specific operations make it a strong tool for nightly shelter functions. Functions include a bed search wizard, a violations module, and an “eligible to return” screen. ServicePoint received the highest score for bed assignment. It was considered to be the easiest to use and stored extensive data linked to the assignment. ClientTrack is also strong in bed assignment. It has a strong agency accounting module, links all clients and services to funding sources, and requires entry of cost each time a service is assigned. It also has a donor tracking feature. PATHWAYS COMPASS also performed well in agency accounting due to its tools to track client disbursements against a total that automatically decreases as funds are disbursed.

Table 23 displays the lab evaluation scores for the Operations category and each of its evaluation activities.

**Table 23: Operations Scores**

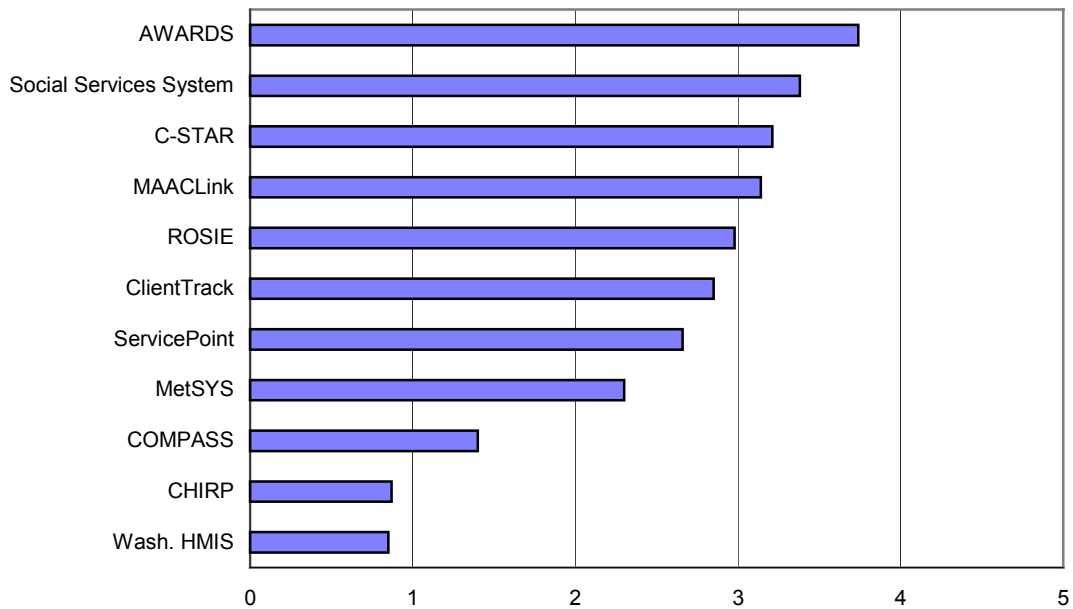
Functional Activity	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLink	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
<b>Agency Accounting</b>	4.67	0.00	4.67	4.19	2.56	3.36	3.61	3.19	3.92	3.28	0.00
<b>Bed Register</b>	3.13	2.61	3.89	0.00	3.63	3.23	3.28	3.51	4.05	2.96	2.56
<b>Incident Management</b>	3.41	0.00	0.00	0.00	3.45	2.83	0.00	2.22	0.00	3.90	0.00
<b>Operations</b>	<b>3.74</b>	<b>0.87</b>	<b>2.85</b>	<b>1.40</b>	<b>3.21</b>	<b>3.14</b>	<b>2.30</b>	<b>2.98</b>	<b>2.66</b>	<b>3.38</b>	<b>0.85</b>

Table 24 displays the scores for the Operations category by each of the evaluation criteria. The result scores (last column) are graphed in Figure 27.

**Table 24: Operations Scores By Evaluation Criteria**

Solution	Data Entry Required	Performance	Intuitiveness	Presentation	Flow	Average Ease Of Use	Data Elements	Features	Average Comprehensiveness	Overall Impression	Result Score
		Ease of Use Scores					Comprehensiveness Scores				
<b>AWARDS</b>	medium	3.88	3.48	3.73	3.67	3.69	4.04	3.84	3.94	3.58	3.74
<b>Soc. Serv. Sys.</b>	medium	3.74	3.30	3.42	3.97	3.61	3.13	3.27	3.20	3.33	3.38
<b>C-STAR</b>	low	3.97	3.94	3.62	3.89	3.86	2.59	2.57	2.58	3.20	3.21
<b>MAACLink</b>	low	3.74	3.70	3.30	3.93	3.67	2.67	2.94	2.81	2.95	3.14
<b>ROSIE</b>	medium	3.97	3.13	2.83	3.29	3.30	2.78	2.70	2.74	2.89	2.98
<b>ClientTrack</b>	medium	2.58	2.20	2.67	2.97	2.60	2.92	3.03	2.97	2.98	2.85
<b>ServicePoint</b>	low	2.70	2.32	2.72	2.60	2.58	3.00	3.00	3.00	2.39	2.66
<b>MetSYS</b>	low	2.63	2.17	2.56	2.22	2.40	2.09	2.14	2.12	2.38	2.30
<b>COMPASS</b>	low	1.33	1.33	1.33	1.67	1.42	1.11	1.11	1.11	1.67	1.40
<b>CHIRP</b>	low	1.14	1.02	1.20	1.14	1.13	0.75	0.79	0.77	0.71	0.87
<b>Wash. HMIS</b>	low	1.17	1.05	0.97	1.08	1.07	0.60	0.56	0.58	0.92	0.85

**Figure 27: Operations Result Scores**



Bar graph displaying the Operations and Results Scores in descending order: AWARDS, Social Services System, C-Star, MAACLink, ROSIE, ClientTrack, ServicePoint, MetSYS, COMPASS, CHIRP and Wash. HMIS.



## Client Assessments

This category includes activities that enable caseworkers to record client needs and create a treatment plan. The service/treatment plan activity encompasses both the ability to create a plan and the ability to conduct multiple case management assessments at different times. MetSYS scored the highest in this category for all three activities: needs assessment, goal setting, and creation of a service/treatment plan. These features are comprehensive and easy to use. In addition to maintaining extensive client-level data and keeping a historical record of each assessment, MetSYS' modules have many features to track needs and goals specific to program involvement. ServicePoint and ClientTrack also performed well in recording multiple assessments over time and creating a treatment plan. Of the two, ServicePoint scored higher in the area of goal setting and ClientTrack scored higher for needs assessment. ServicePoint was considered easier to use; ClientTrack was considered more comprehensive. Of all solutions, ServicePoint performed the strongest in this category. ClientTrack's features ensure that the most data possible can be entered for each assessment.

MAACLink and PATHWAYS COMPASS are both strong tools for recording case management assessments over time. MAACLink has a strong needs assessment function and more limited goal setting. PATHWAYS COMPASS has a full goal-setting module, but has less comprehensive needs assessment ability.

Table 25 displays the lab evaluation scores for the Client Assessment category and each of its evaluation activities.

**Table 25: Client Assessment Scores**

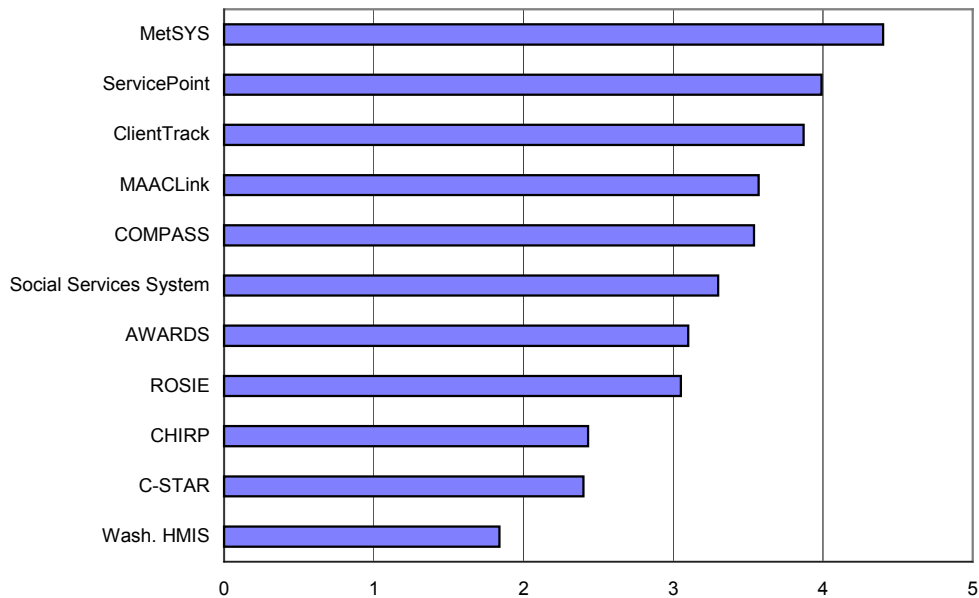
Functional Activity	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLink	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
<b>Needs Assessment</b>	3.25	3.75	4.16	3.30	3.50	3.71	4.23	3.21	3.86	3.45	2.79
<b>Goal Setting</b>	2.87	0.00	3.40	3.55	0.00	3.26	4.63	2.53	4.07	3.20	0.00
<b>Service/Treatment Plan</b>	3.18	3.53	4.06	3.75	3.70	3.73	4.35	3.40	4.05	3.26	2.74
<b>Client Assessments</b>	<b>3.10</b>	<b>2.43</b>	<b>3.87</b>	<b>3.54</b>	<b>2.40</b>	<b>3.57</b>	<b>4.40</b>	<b>3.05</b>	<b>3.99</b>	<b>3.30</b>	<b>1.84</b>

Table 26 displays the scores for the Client Assessment category by each of the evaluation criteria. The result scores (last column) are graphed in Figure 28.

**Table 26: Client Assessment Scores By Evaluation Criteria**

Solution	Data Entry Required	Performance	Intuitiveness	Presentation	Flow	Average Ease Of Use	Data Elements	Features	Average Comprehensiveness	Overall Impression	Result Score
		Ease of Use Scores				Comprehensiveness Scores					
MetSYS	medium	3.84	4.48	4.45	4.24	4.25	4.23	4.74	4.49	4.46	4.40
ServicePoint	medium	3.98	4.32	4.18	3.60	4.02	3.50	3.69	3.60	4.37	3.99
ClientTrack	medium	3.89	3.83	3.71	3.69	3.78	3.78	4.07	3.93	3.91	3.87
MAACLink	medium	3.87	4.30	3.36	3.97	3.87	3.17	3.06	3.12	3.71	3.57
COMPASS	medium	3.85	4.16	4.03	3.93	3.99	2.95	2.99	2.97	3.65	3.54
Soc. Serv. Sys.	low	3.14	3.79	3.62	3.82	3.59	3.08	2.86	2.97	3.34	3.30
AWARDS	medium	3.79	3.03	3.58	2.87	3.31	2.77	3.11	2.94	3.04	3.10
ROSIE	low	3.39	2.95	2.70	3.05	3.02	3.12	3.15	3.14	2.98	3.05
CHIRP	low	2.58	2.96	2.59	2.66	2.70	1.95	1.88	1.91	2.67	2.43
C-STAR	low	2.59	2.53	2.50	2.43	2.51	2.16	2.22	2.19	2.50	2.40
Wash. HMIS	low	2.45	2.29	2.15	2.12	2.25	1.28	1.35	1.31	1.96	1.84

**Figure 28: Client Assessment Result Scores**



Bar graph displaying Client Result Scores in descending order: MetSYS, ServicePoint, ClientTrack, MAACLink, COMPASS, Social Service System, AWARDS, ROSIE, CHIRP, C-STAR and Wash. HMIS.

## Services and Outcomes

This category encompasses six activities that enable caseworkers to deliver services, and track progress and outcomes. Five solutions scored very close together at the top of this category. PATHWAYS COMPASS received the highest overall impression and flow scores. All information about a client’s services and status can be found on one screen. However, it contained fewer data elements and features than the other top-scoring solutions. ServicePoint received the highest scores for comprehensiveness, and did well in both performance and presentation. It was among the top three systems for each of the activities except outreach. MetSYS’ functionality is fast and intuitive, particularly for service delivery. MetSYS’ “Milestones” screen earned it the highest scores for measuring outcomes. ClientTrack also had high performance scores and was rated the strongest solution for client follow-up. It was also among the strongest solutions for service delivery, service tracking, and outcomes measurement. C-STAR was rated the strongest solution for tracking services and client progress. It was also strong in service delivery and follow-up. C-STAR had the highest data entry requirements for the category as a whole.

Outreach is included as a separate activity although many solutions integrate outreach into their service delivery and tracking modules. Solutions with integrated outreach features received the same score, which is lower than the solutions that have special outreach functionality. PATHWAYS COMPASS’ wireless outreach service helped it to be among the top solutions in the category. ROSIE has a strong outreach module that allows staff to do intake and searches based on physical characteristics such as hair color. CHIRP also has a distinct outreach module.

Table 27 displays the lab evaluation scores for the Services and Outcomes category, and each of its evaluation activities.

**Table 27: Services and Outcomes Scores**

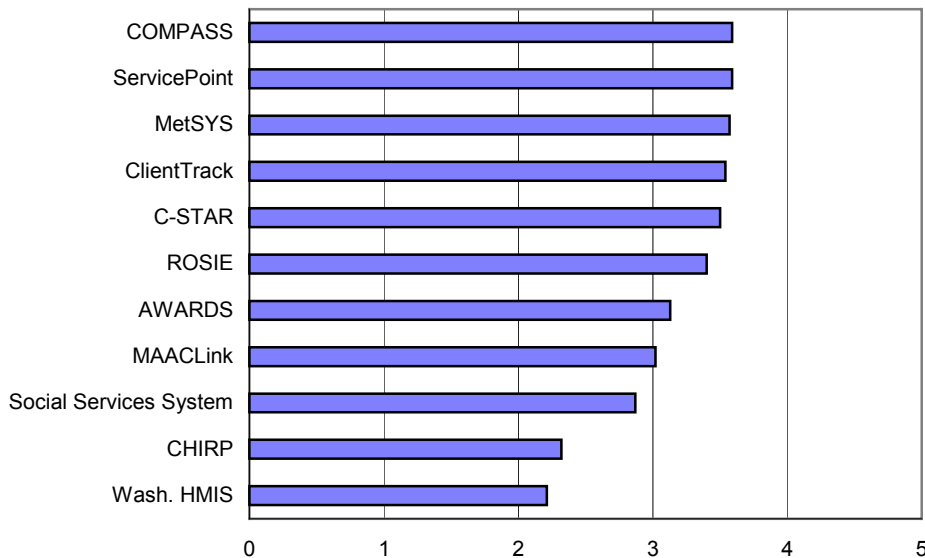
Functional Activity	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLink	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
<b>Service Delivery</b>	3.30	3.44	3.86	3.57	3.87	3.24	4.35	3.57	4.08	2.61	2.49
<b>Services Tracking</b>	3.24	2.92	3.76	3.59	4.27	3.31	3.83	3.18	4.06	3.23	2.68
<b>Outreach</b>	2.22	3.78	2.22	4.03	2.22	2.22	2.22	4.06	2.22	2.22	2.22
<b>Progress Tracking</b>	3.34	0.00	3.22	3.35	3.64	2.94	3.32	3.27	3.49	2.97	0.00
<b>Outcomes Measurement</b>	3.56	0.00	4.03	3.59	3.04	2.94	4.16	3.00	4.02	2.86	2.62
<b>Follow-Up</b>	3.14	3.81	4.18	3.40	3.94	3.48	3.54	3.33	3.68	3.31	3.23
<b>Services and Outcomes</b>	<b>3.13</b>	<b>2.32</b>	<b>3.54</b>	<b>3.59</b>	<b>3.50</b>	<b>3.02</b>	<b>3.57</b>	<b>3.36</b>	<b>3.59</b>	<b>2.87</b>	<b>2.21</b>

Table 28 displays the scores for the Services and Outcomes category by each of the evaluation criteria. The result scores (last column) are graphed in Figure 29.

**Table 28: Services and Outcomes Scores By Evaluation Criteria**

Solution	Data Entry Required	Performance	Intuitiveness	Presentation	Flow	Average Ease Of Use	Data Elements	Features	Average Comprehensiveness	Overall Impression	Result Score
		Ease of Use Scores					Comprehensiveness Scores				
COMPASS	medium	3.68	3.95	3.73	3.89	3.81	2.92	2.96	2.94	4.01	3.59
ServicePoint	medium	3.83	3.85	3.91	3.80	3.85	3.37	3.38	3.37	3.56	3.59
MetSYS	low	3.83	3.97	3.95	3.79	3.88	2.71	3.44	3.07	3.75	3.57
ClientTrack	medium	3.83	3.65	3.81	3.85	3.79	2.86	3.47	3.17	3.68	3.54
C-STAR	medium	3.68	3.92	3.68	3.77	3.76	3.12	3.29	3.20	3.52	3.50
ROSIE	medium	3.57	3.55	3.20	3.77	3.52	3.09	3.40	3.25	3.44	3.40
AWARDS	medium	3.81	3.05	3.20	2.75	3.20	3.13	3.20	3.16	3.04	3.13
MAACLink	low	3.59	3.44	3.18	3.83	3.51	2.44	2.48	2.46	3.10	3.02
Soc. Serv. Sys.	low	3.22	3.33	3.69	3.39	3.41	2.36	2.15	2.26	2.93	2.87
CHIRP	low	2.70	2.74	2.37	2.69	2.63	2.24	2.00	2.12	2.23	2.32
Wash. HMIS	low	2.94	2.67	2.46	2.74	2.70	1.56	1.68	1.62	2.30	2.21

**Figure 29: Services and Outcomes Result Scores**



Bar graph displaying Services and Outcome Result Scores in descending order: COMPASS, ServicePoint, MetSYS, ClientTrack, C-STAR, ROSIE, AWARDS, MAACLink, Social Services System, CHIRP, and Wash. HMIS.

## Reporting

This category covers all aspects of reporting except the HUD APR, which is handled separately. Three different types of reporting activities are grouped here (see Table 29): common, specific reporting such as aggregate client demographics; built-in reports and reports by program; and custom reports.

ServicePoint received the highest averaged score for all activities. ServicePoint includes a strong implementation of each of the specific reports tested, scoring the highest for the services rendered and bed capacity utilization reports. It also scored high for the general reporting tests and features a strong integrated custom report writer that does not rely on third-party tools. MAACLink also has strong reporting tools. Its custom report writer was the most flexible and easiest to use. It also performed well in the specific reports, particularly the aggregate unduplicated counts. Social Services System received very strong scores for four of the five specific reports and for its variety of additional reports. It also allows integration with Crystal Reports and other custom report writers. MetSYS and C-STAR are both powerful tools that have many reports and the ability to create custom reports. MetSYS is particularly strong in the client demographics area and C-STAR's power lies in its abundance of reports. PATHWAYS COMPASS received the highest scores for its general reporting, and its intake and exit report; however, its aggregate score was diminished due to its lack of a custom report writer.

Table 29 displays the lab evaluation scores for the Reporting category and each of its evaluation activities.

**Table 29: Reporting Scores**

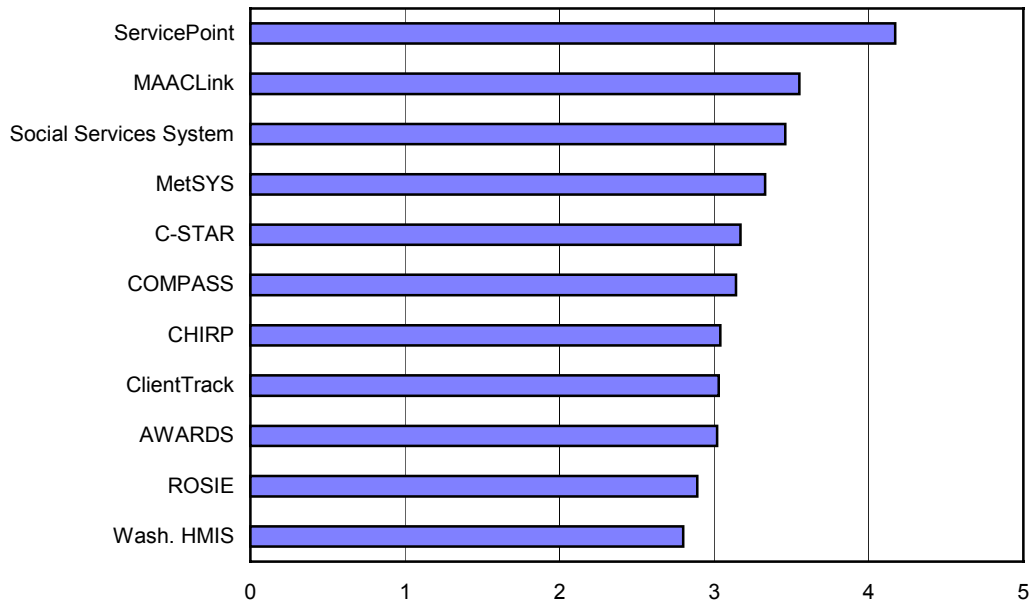
Functional Activity	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLink	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
<b>Client Demographics</b>	3.97	3.28	3.00	3.69	3.11	4.19	4.25	3.44	4.33	4.17	3.08
<b>Aggregate Unduplicated</b>	2.78	3.69	0.00	3.69	2.56	4.33	3.83	3.36	4.36	4.17	3.22
<b>Client Intake &amp; Exit</b>	3.19	3.36	3.69	4.47	2.56	4.00	3.11	3.28	3.44	4.17	2.89
<b>Services Rendered</b>	3.19	2.81	3.97	4.14	3.53	4.33	3.69	3.28	4.33	4.17	2.89
<b>Bed Register Capacity</b>	3.61	0.00	4.25	0.00	2.61	0.00	0.00	2.94	4.33	0.00	2.39
<b>Variety of Built-in Reports</b>	3.69	3.58	3.15	4.56	4.31	3.61	4.07	3.42	4.14	3.83	2.75
<b>Reports by Program</b>	3.69	3.58	3.15	4.56	3.72	3.61	4.07	3.42	4.14	3.83	2.75
<b>Custom Reports</b>	0.00	4.01	3.00	0.00	2.94	4.33	3.58	0.00	4.31	3.33	2.39
<b>Reporting</b>	<b>3.02</b>	<b>3.04</b>	<b>3.03</b>	<b>3.14</b>	<b>3.17</b>	<b>3.55</b>	<b>3.33</b>	<b>2.89</b>	<b>4.17</b>	<b>3.46</b>	<b>2.80</b>

Table 30 displays the scores for the Reporting category by each of the evaluation criteria. The result scores (last column) are graphed in Figure 30.

**Table 30: Reporting Scores By Evaluation Criteria**

Solution	Data Entry Required	Performance	Intuitiveness	Presentation	Flow	Average Ease Of Use	Data Elements	Features	Average Comprehensiveness	Overall Impression	Result Score
		Ease of Use Scores				Comprehensiveness Scores					
ServicePoint	medium	4.19	4.13	4.44	4.00	4.19	4.27	4.27	4.27	4.06	4.17
MAACLink	low	3.63	3.50	3.50	3.50	3.53	3.75	3.75	3.75	3.38	3.55
Soc. Serv. Sys.	medium	3.50	3.19	2.81	2.88	3.09	3.85	3.96	3.91	3.38	3.46
MetSYS	low	2.75	2.88	3.38	3.00	3.00	3.96	3.75	3.85	3.13	3.33
C-STAR	medium	2.88	3.00	3.38	3.31	3.14	3.44	2.91	3.18	3.19	3.17
COMPASS	low	3.25	3.38	2.88	3.00	3.13	2.92	2.92	2.92	3.38	3.14
CHIRP	low	3.38	3.25	2.81	3.38	3.20	2.81	3.02	2.92	3.00	3.04
ClientTrack	low	3.25	3.38	3.13	3.25	3.25	2.92	2.50	2.71	3.13	3.03
AWARDS	medium	3.38	3.00	3.25	2.50	3.03	3.13	2.92	3.02	3.00	3.02
ROSIE	low	3.38	3.38	2.50	3.38	3.16	3.13	2.92	3.02	2.50	2.89
Wash. HMIS	medium	3.63	3.50	3.75	3.75	3.66	2.29	1.67	1.98	2.75	2.80

**Figure 30: Reporting Result Scores**



Bar graph displaying Reporting Result Scores in descending order: ServicePoint, MAACLink, Social Services System, MetSYS, C-STAR, COMPASS, CHIRP, ClientTrack, AWARDS, ROSIE, and Wash. HMIS.

HUD’s Annual Progress Report (APR)

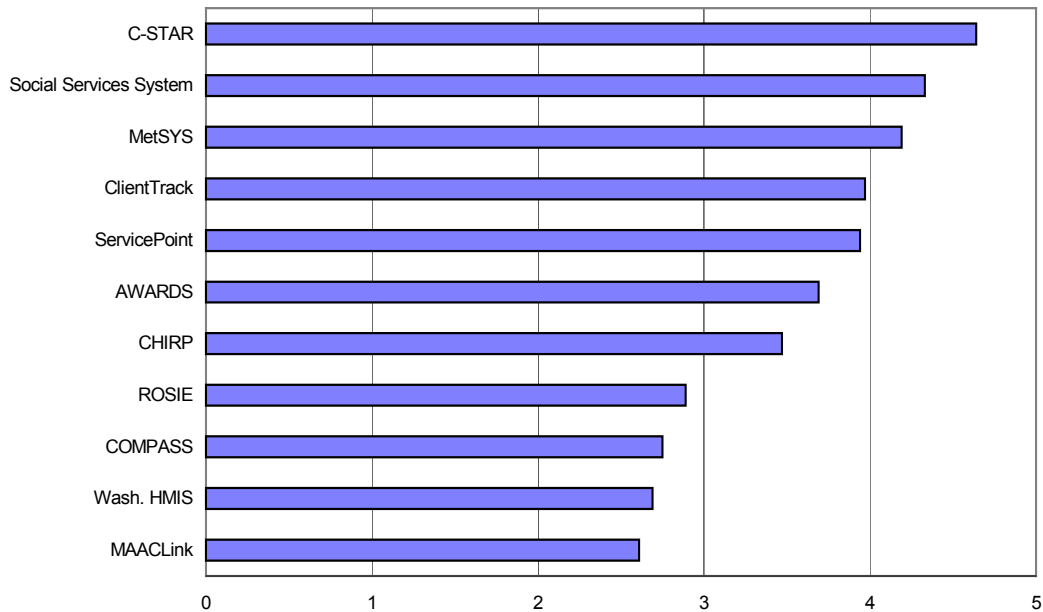
This category represents the single activity of producing the APR. C-STAR scored the highest in this category. It answers the demographic parts of the report in a format closely matching the HUD standard and can be run by program, facility or for multiple facilities. C-STAR’s high features score reflects its unique ability to show data entry errors directly on the report. Social Services System and MetSYS also scored very high in this category. Unlike C-STAR, both answer the questions related to overall program goals, increased skill or income, and beds and supportive services, in addition to the demographic sections. Social Services System allows the user to enter and edit this information directly into a screen before producing the report. MetSYS gathers the information from other parts of the system. Thus, Social Services System’s implementation of the report itself is more comprehensive. MetSYS’ is considered easier to use if the data are already in place. The solutions scoring the lowest in this category do not generate the full APR, although it is possible to gather most of the data through other reports or queries.

Table 31 displays the scores for the APR category by the evaluation criteria. The result scores (final column) are graphed in Figure 31.

**Table 31: APR Scores By Evaluation Criteria**

Solution	Data Entry Required	Performance	Intuitiveness	Presentation	Flow	Average Ease Of Use	Data Elements	Features	Average Comprehensiveness	Overall Impression	Result Score
		Ease of Use Scores					Comprehensiveness Scores				
<b>C-STAR</b>	N/A	5.00	4.00	5.00	5.00	4.75	3.33	5.00	4.17	5.00	4.64
<b>Soc. Serv. Sys.</b>	N/A	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	4.00	4.33
<b>MetSYS</b>	N/A	5.00	4.00	5.00	3.00	4.25	3.33	3.33	3.33	5.00	4.19
<b>ClientTrack</b>	N/A	3.00	4.00	4.00	4.00	3.75	3.33	5.00	4.17	4.00	3.97
<b>ServicePoint</b>	N/A	4.00	5.00	4.00	5.00	4.50	3.33	3.33	3.33	4.00	3.94
<b>AWARDS</b>	N/A	4.00	4.00	4.00	3.00	3.75	3.33	3.33	3.33	4.00	3.69
<b>CHIRP</b>	N/A	4.00	5.00	5.00	5.00	4.75	1.67	1.67	1.67	4.00	3.47
<b>ROSIE</b>	N/A	4.00	4.00	4.00	4.00	4.00	1.67	1.67	1.67	3.00	2.89
<b>COMPASS</b>	N/A	3.00	3.00	2.00	3.00	2.75	1.67	4.33	3.00	2.50	2.75
<b>Wash. HMIS</b>	N/A	4.00	2.00	2.00	3.00	2.75	3.33	3.33	3.33	2.00	2.69
<b>MAACLink</b>	N/A	4.00	3.00	3.00	4.00	3.50	3.33	3.33	3.33	1.00	2.61

**Figure 31: APR Result Scores**



**Bar graph displaying APR Result Scores in descending order: C-STAR, Social Services System, MetSYS, ClientTrack, ServicePoint, AWARDS, CHIRP, ROSIE, COMPASS, Wash. HMIS, and MAACLink.**

### Local System Administration

This category includes features that enable a solution to be configured for particular needs. MetSYS scored the highest for all three activities in this category. MetSYS has fully developed and strongly organized interfaces for system and program administration functions. It received high scores for presentation and flow relative to the other systems. MetSYS' strongest aspect is its comprehensiveness. User permissions can be set on a very minute level; data elements can be added to any screen using a graphical tool; and exports can be made from any table or group of tables. The administrator is aided in all of these tasks by a single utility that enables searching through the solution's back-end data structure.

ClientTrack and Social Services System also have powerful customization and administration components that allow a high level of flexibility in setting up a local implementation. Washington HMIS is also one of the most versatile systems in terms of adding data elements of any type to any screen. MAACLink has easy to use, well-developed basic HMIS system administration screens but it is not as strong in the other activities.

All solutions can be configured to some extent; however, the ease with which local administrators can configure solutions depends on the interface. Solutions that require system administration functions to be conducted by the solution provider received lower scores than those with full user interfaces. These types of systems may be ideal for communities who do not want to be responsible for their own configuration or maintenance.



Table 32 displays the lab evaluation scores for the Local System Administration category and each of its evaluation activities.

**Table 32: Local System Administration Scores**

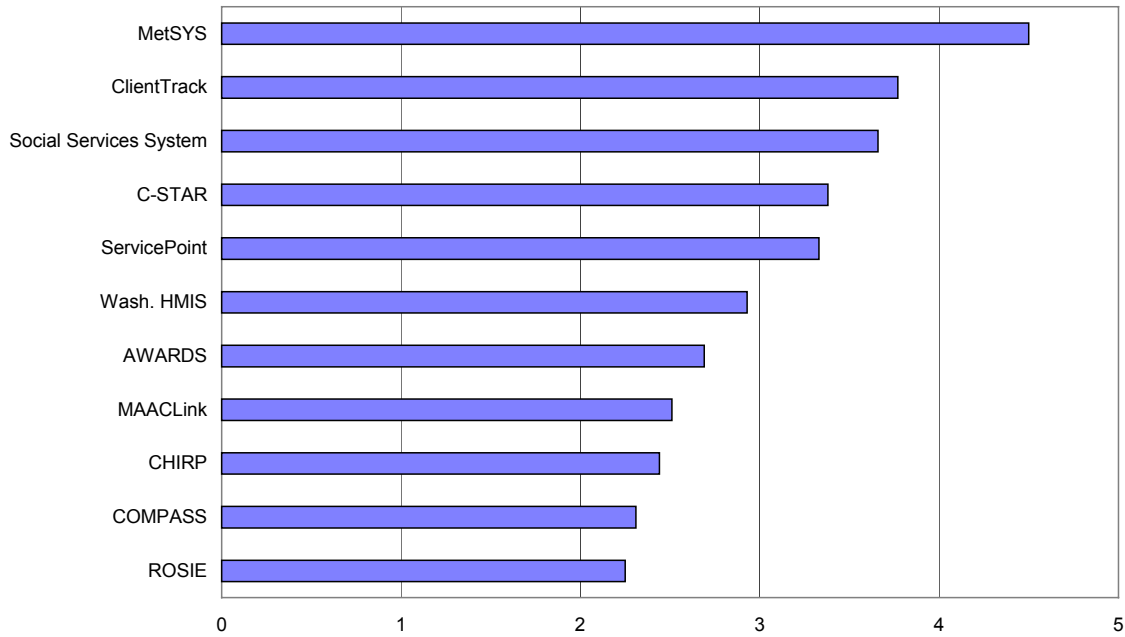
Functional Activity	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLink	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
Agency Administration	3.69	2.14	4.08	2.14	3.39	4.44	4.83	2.94	4.08	4.67	2.47
Ability to Add Data Elements	1.56	2.39	4.42	2.06	3.19	0.00	4.50	1.56	2.47	4.00	4.42
Export Mechanisms	2.81	2.78	2.81	2.75	3.56	3.08	4.17	2.25	3.44	2.31	1.89
Local System Administration	2.69	2.44	3.77	2.31	3.38	2.51	4.50	2.25	3.33	3.66	2.93

Table 33 displays the scores for the System Administration category by the evaluation criteria. The result scores (last column) are graphed in Figure 32.

**Table 33: Local System Administration Scores By Evaluation Criteria**

Solution	Data Entry Required	Performance	Intuitiveness	Presentation	Flow	Average Ease Of Use	Data Elements	Features	Average Comprehensiveness	Overall Impression	Result Score
		Ease of Use Scores					Comprehensiveness Scores				
MetSYS	high	4.33	3.33	4.00	3.67	3.83	5.00	5.00	5.00	4.67	4.50
ClientTrack	medium	4.00	2.67	4.00	3.00	3.42	3.89	3.89	3.89	4.00	3.77
Soc. Serv. Sys.	medium	4.00	2.67	3.33	3.67	3.42	3.89	3.89	3.89	3.67	3.66
C-STAR	medium	4.00	2.67	3.00	3.33	3.25	4.44	3.33	3.89	3.00	3.38
ServicePoint	medium	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
Wash. HMIS	medium	3.00	3.00	2.00	2.67	2.67	2.78	2.78	2.78	3.33	2.93
AWARDS	low	3.00	3.00	2.33	3.00	2.83	2.22	2.22	2.22	3.00	2.69
MAACLink	low	2.67	3.00	3.00	3.00	2.92	1.67	2.22	1.91	2.67	2.51
CHIRP	medium	2.67	2.67	3.33	3.67	3.08	2.22	2.22	2.22		2.44
COMPASS	low	3.00	2.33	3.00	2.33	2.67	1.67	2.22	1.94	2.33	2.31
ROSIE	low	2.00	2.00	1.67	2.00	1.92	2.78	2.22	2.50	2.33	2.25

**Figure 32: Local System Administration Result Scores**



**Bar graph displaying Local System Administration Result Scores in descending order: MetSYS, ClientTrack, Social Services System, C-Star, ServicePoint, Wash. HMIS, AWARDS, MAACLink, CHIRP, COMPASS, and ROSIE.**

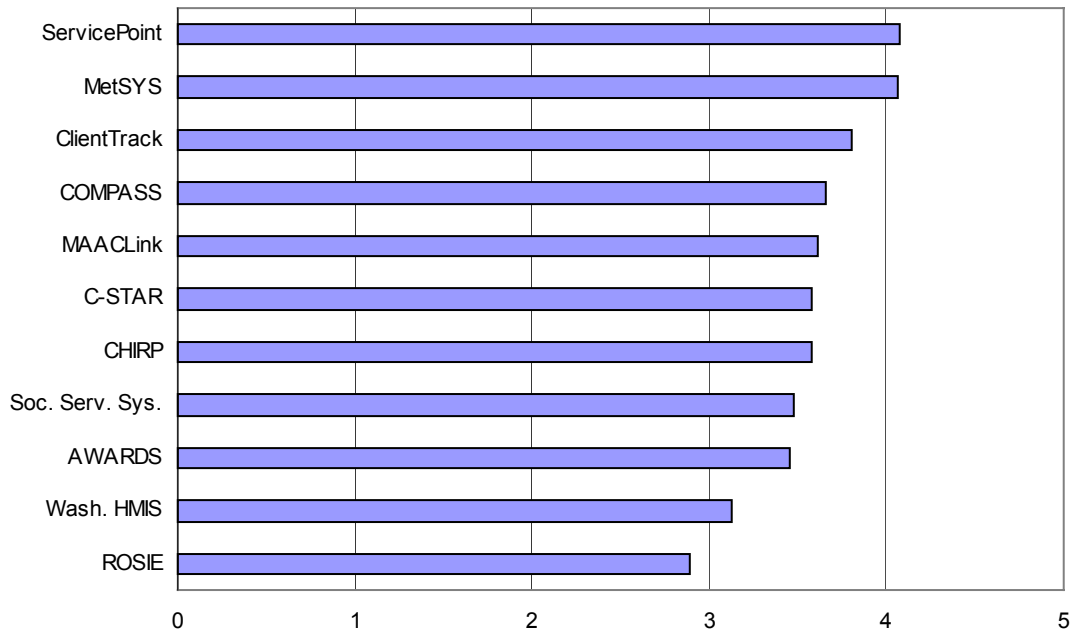
### **Evaluation Criteria Summary**

This section displays the lab test scores each solution received for the nine evaluative criteria. The graphs represent the aggregate results for each criterion across all functional evaluation activities. For example, the scores in Figure 33 represent the average of the presentation scores for all activities across the Intake and Exit, Information and Referral, Operations, Client Assessment, Services and Outcomes, Reporting, HUD APR, and System Administration categories for each solution. Chapter Two defines the criteria in more detail.

## Presentation

Figure 33 displays the presentation scores. Scores are based on the look and feel of screens, fonts, use of white space, and appropriate use of colors.

**Figure 33: Presentation Scores**

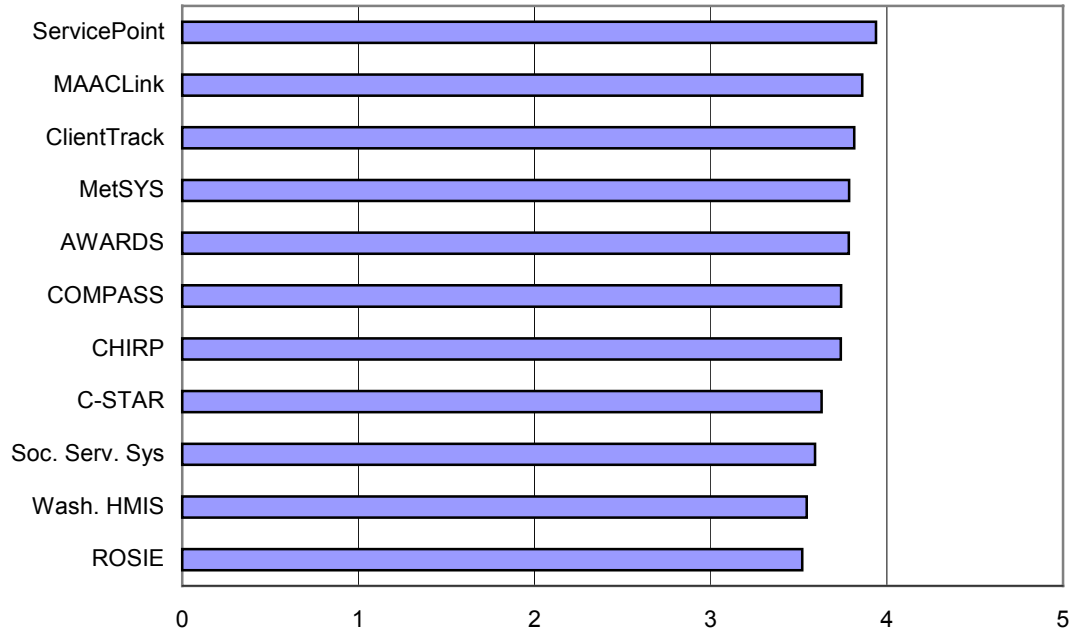


**Bar graph displaying the Presentation Scores in descending order: ServicePoint, MetSYS, ClientTrack, COMPASS, MAACLink, C-STAR, CHIRP, Social Services System, AWARDS, Wash. HMIS, and ROSIE.**

## Performance

Figure 34 displays the performance scores. Scores are based on system performance and application speed across all environments. Specific performance in each environment is displayed in the Environment Scores section later in this document.

**Figure 34: Performance Scores**

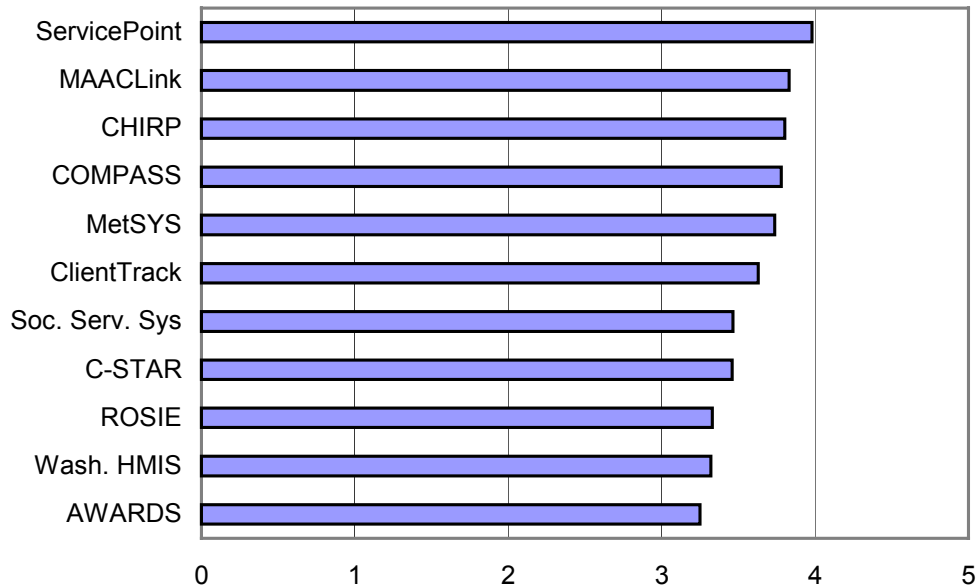


Bar graph displaying Performance Scores in descending order: ServicePoint, MAACLink, ClientTrack, MetSYS, AWARDS, COMPASS, CHIRP, C-STAR, Social Services Systems, Wash. HMIS and ROSIE.

## Intuitiveness

Figure 35 displays intuitiveness scores. Scores are based on how easy is it to learn and recall how to perform a particular task. Intuitiveness also evaluates the extent to which labels, buttons, and menus convey the task they represent. Another important aspect of intuitiveness is whether activities conform to a standard process across the application.

**Figure 35: Intuitiveness Scores**

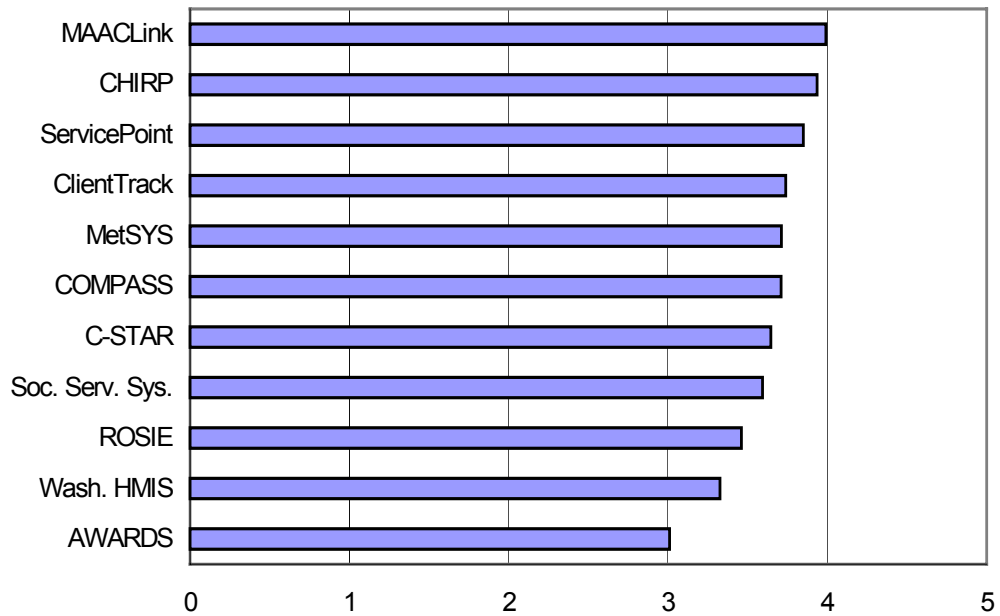


**Bar graph displaying Intuitiveness Scores in descending order: ServicePoint, MAACLink, CHIRP, COMPASS, MetSYS, ClientTrack, Social Services Systems, C-STAR, ROSIE, Wash. HMIS and AWARDS.**

## Flow

Figure 36 displays flow scores. Scores are based on the number of screens and clicks required to perform an action. It also considers whether there are multiple paths a user can take to a particular screen and whether the steps form a logical progression.

**Figure 36: Flow Scores**

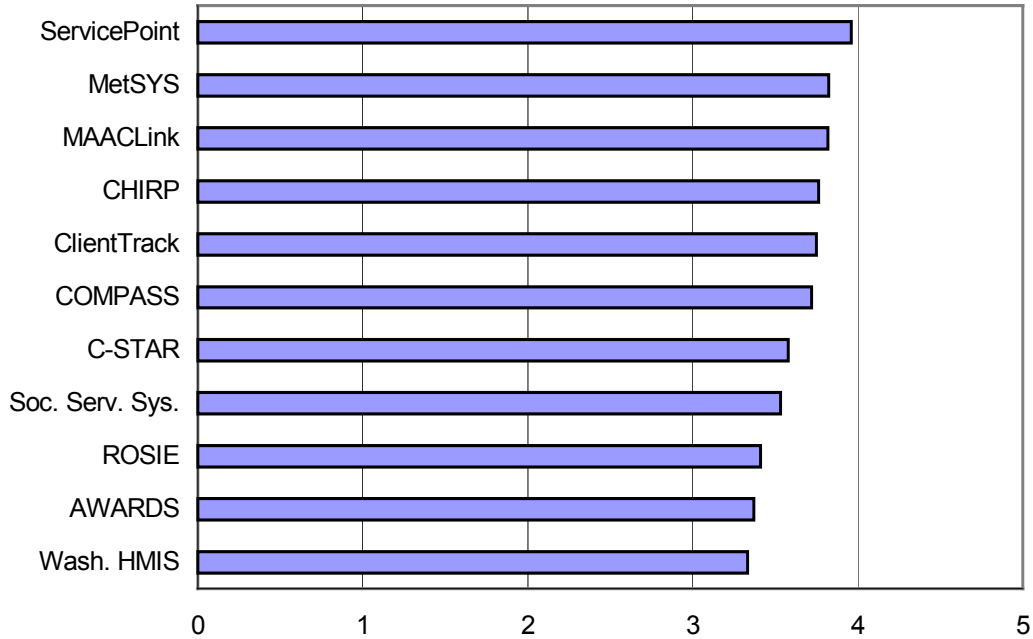


Bar graph displaying Flow Scores in descending order: MAACLink, CHIRP, ServicePoint, ClientTrack, MetSYS, COMPASS, C-STAR, Social Services System, ROSIE, Wash. HMIS and AWARDS.

## Average Ease of Use

Figure 37 displays the average ease of use scores, which are the average of the presentation, performance, intuitiveness, and flow scores.

**Figure 37: Average Ease of Use Scores**

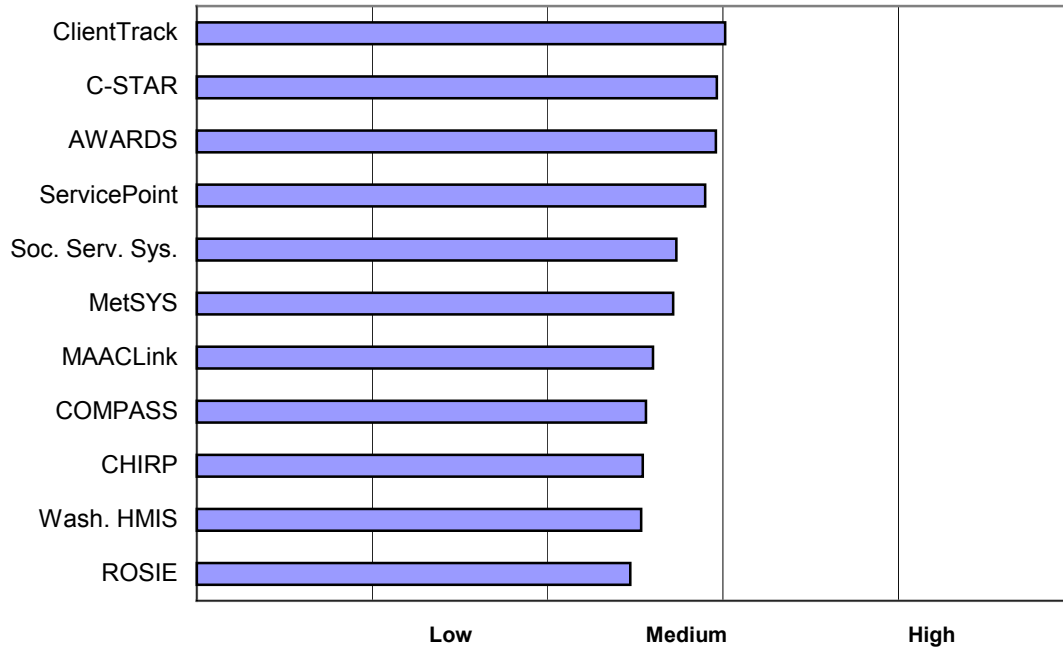


Bar graph displaying Average Ease of Use Scores in descending order: ServicePoint, MetSYS, MAACLink, CHIRP, ClientTrack, COMPASS, C-STAR, Social Services Systems, ROSIE, AWARDS and Wash. HMIS.

## Data Entry Required

Figure 38 displays data entry required scores. Scores are based on how much data entry is required in order to complete the activity. When more data entry is required the reports are more complete and informative. However, a lower value is sometimes necessary for those doing high volume tasks. A lower score makes the system easier to use, but a higher score ensures better data reporting.

**Figure 38: Data Entry Required Scores**



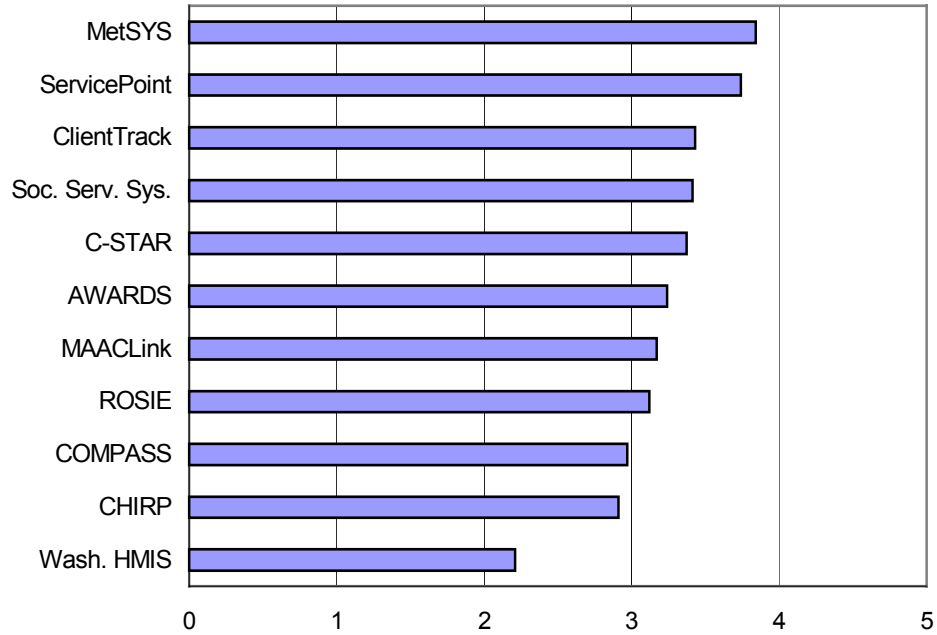
Bar graph displaying Data Entry Required Scores in descending order: ClientTrack, C-Star, AWARDS, ServicePoint, Social Services Systems, MetSYS, MAACLink, COMPASS, CHIRP, Wash. HMIS, and ROSIE.



## Data Elements

Figure 39 displays data elements scores. Scores are based on the relative level of data that the solution collects for all functional activities.

**Figure 39: Data Elements Scores**

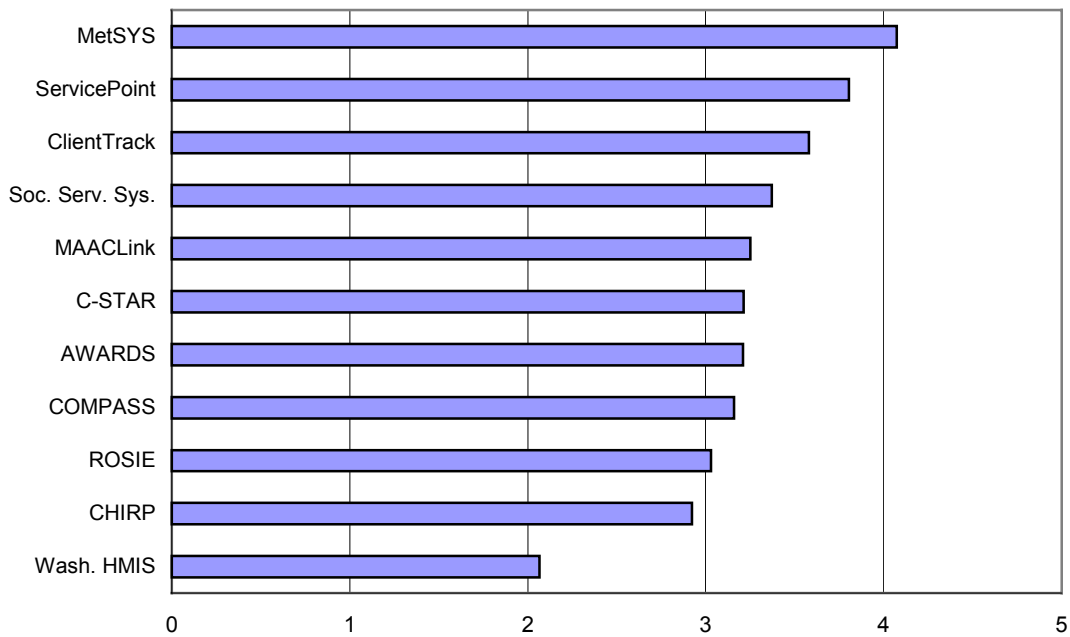


**Bar graph displaying Data Elements Scores in descending order: MetSYS, ServicePoint, ClientTrack, Social Services Systems, C-STAR, AWARDS, MAACLink, ROSIE, COMPASS, CHIRP and Wash. HMIS.**

## Features

Figure 40 displays features scores. Scores are based on the extent to which the software provides tools, wizards, other “bells and whistles,” and validations that assist the user with the activity and ensure accuracy.

**Figure 40: Features Scores**

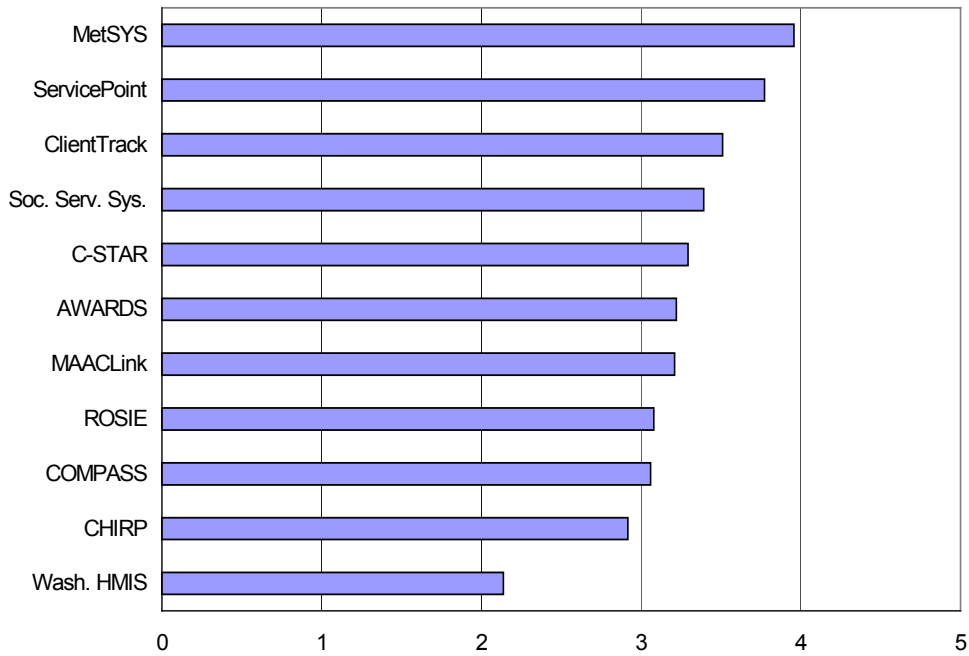


**Bar graph displaying Features Scores in descending order: MetSYS, ServicePoint, ClientTrack, Social Services Systems, MAACLink, C-STAR, AWARDS, COMPASS, ROSIE, CHIRP and Wash. HMIS.**

## Average Comprehensiveness

Figure 41 displays average comprehensiveness scores, which are the average of the data elements and features scores.

**Figure 41: Average Comprehensiveness Scores**



**Bar graph displaying Average Comprehensiveness Scores in descending order: MetSYS, ServicePoint, ClientTrack, Social Services Systems, C-STAR, AWARDS, MAACLink, ROSIE, COMPASS, CHIRP and Wash. HMIS.**

## System Evaluation Results

### Data Sharing and Security

#### User Authentication

Table 34 displays the rules and the processes of logging on to each of the solutions tested.

**Table 34: Login Rules and Processes**

Function	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLink	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
Removes earlier username and password from screen between two subsequent login sessions	Yes	No (Note #1)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Screen prompting incorrect username/ password	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No (Note #2)	Yes	Yes
Screen locks after minimum number of attempts	No	No	No	Yes (3 attempts)	No	No	No	No	No	No	Yes (4 attempts)
User can enter with invalid username/ password	No	No	No	No	No	No	No	No	No	No	No
Enforces User/ Password Guidelines	Yes (Note #3)	No	No	Yes	No	No	No	No	Yes (Note #4)	No	Yes (Note #5)

1 - CHIRP: Will keep username of previous user.

2 - ServicePoint: Invalid password brings one back to the loggin screen without explanation

3 - AWARDS: lowercase username 4-8 characters, password 6-8 characters with letters and numbers required.

4 - ServicePoint: 8-16 characters long with at least 2 numbers.

5 - Wash HMIS: Username and password must be at least 8 characters.

Permissions

Table 35 displays the implementation of permissions for administrators and caseworkers within an agency and between agencies.

**Table 35: Administrator and Caseworker Permissions**

Details	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLInk	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
Distinguishes "Read and Update" permissions	Yes	Yes	Yes	Yes	Yes - Using Access user/group perms.	No	Yes	Yes	No	No	No
Permission set to individual modules or tasks (e.g. hiding client services or client profiles)	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
Administrator options/ functions hidden in the user module (the tabs or buttons are also not seen)	No	Yes	Yes	No	Yes	Yes	Yes	No - Drop downs are faded out but can still be seen.	Yes	Yes	Yes
Different levels of access for caseworkers in a single agency	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Sharing and withholding data between agencies/facilities	A client consent form is required. Client data shared after user is admitted.	Data not shared among agencies. Exported data is de-identified.	Agency can set all client information to be viewed by another organization and override it on a client basis or by functional area.	Permission on file required. Certain fields are not shown beyond one agency.	Non-service data is shared. Service data based on facilities.	All data is shared.	Agencies can select which information can be shared for each client.	Data is shared. Certain agencies can record services that cannot be seen by other agencies and their clients can be hidden.	User can define which fields should be shared per client.	All data is shared.	Each organization can choose the other organizations to share with and can override for individual data.

## Solution-level Security

Table 36 displays solution-level security capabilities.

**Table 36: Solution-Level Security Capabilities**

Solution	Database encryption	Encryption of data transmission	Certificate management	Creates audit trails	Uses firewalls
<b>AWARDS</b>	Yes	Yes	Yes	Yes	Yes
<b>CHIRP</b>	No	No	No	Yes	No
<b>ClientTrack</b>	No	Yes	Yes	Yes	Yes
<b>COMPASS</b>	No	Yes	Yes	Yes	Yes
<b>C-STAR</b>	No	No	No	Yes	No
<b>MAACLlink</b>	Yes	Yes	No	Yes	Yes
<b>MetSYS</b>	Yes	Yes	Yes	Yes	Yes
<b>ROSIE</b>	No	Yes	No	Yes	No
<b>ServicePoint</b>	Yes	Yes	Yes	Yes	Yes
<b>Soc. Serv. Sys.</b>	No	Yes	No	Yes	No
<b>Washington HMIS</b>	Yes	Yes	No	Yes	Yes

## Client Data Elements

This section presents results of a client data element analysis. For this category, analysis included verification of whether solutions included standard client data elements; the system's ability to add new community-specified data elements; the ability to place data elements in a logical location within the system; and the ability to modify data element options.

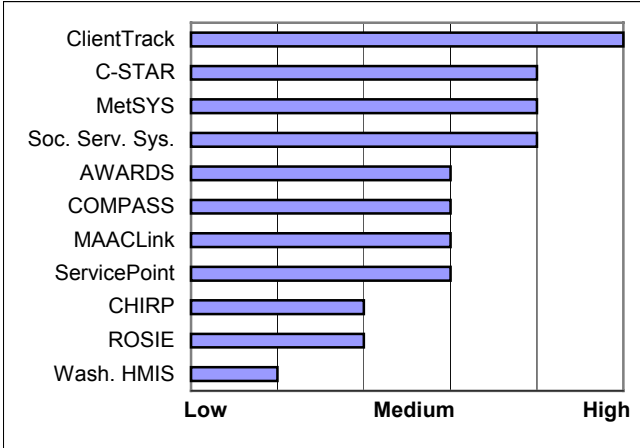
Systems that received higher scores have fields for more elements. Each system's ability to add data elements and modify options is graphed separately following the bar graphs of the data element types.

Each data element type is introduced with a list of examples of data elements found in that category. All data elements listed were found in at least one solution. The bar graphs represent relative scores for each tested solution based on the number of data elements found in that category. Since the solutions were scored relative to each other for each data element type, at least one solution has the highest score (5) in each data element category. It is important to note that a 5 in one category is not necessarily equivalent to a 5 in another category. For instance, the highest score for Health Information represents more than 10 times the number of distinct fields than the highest score for Military Information. Client data elements are graphed using a low (0–1), medium (2–3), and high (4–5) scale.

All solutions afford some way for communities to add additional data elements and to modify data element options. Solutions that lack depth in particular data element areas may make up for this weakness by allowing for greater customization. This review does not consider data elements that may be tracked in other related modules offered by the solution provider beyond the core HMIS modules.

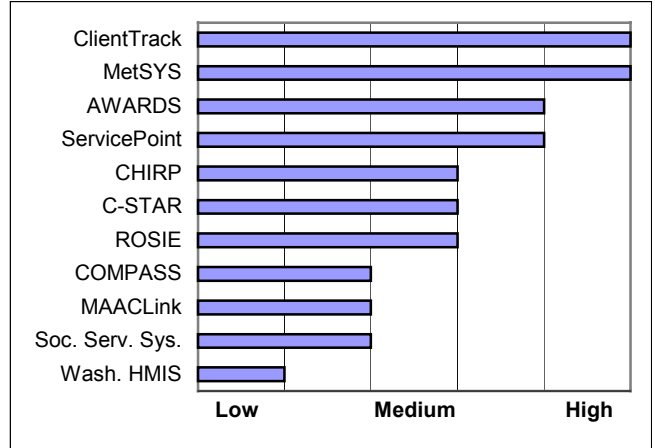
**Personal Information**

Examples: First and last name; complete middle name; SSN; IDs besides SSN such as driver's license; agency designated ID; one or more aliases; pictures; physical features; and contact information.



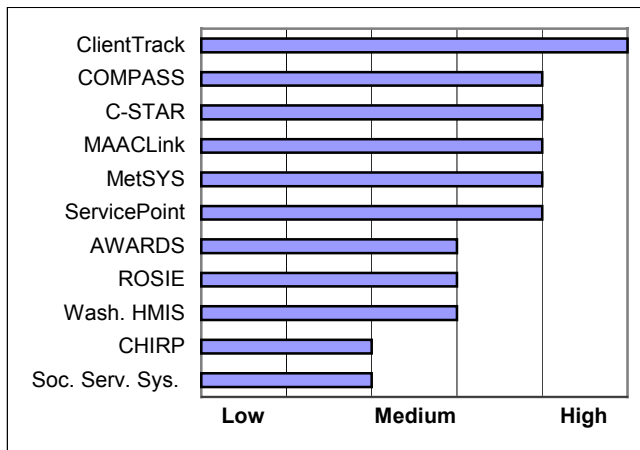
**Client Demographics**

Examples: Race; multiple races per client; gender; ethnicity; date of birth; primary language; marital status; citizenship; immigrations status; and birth location.



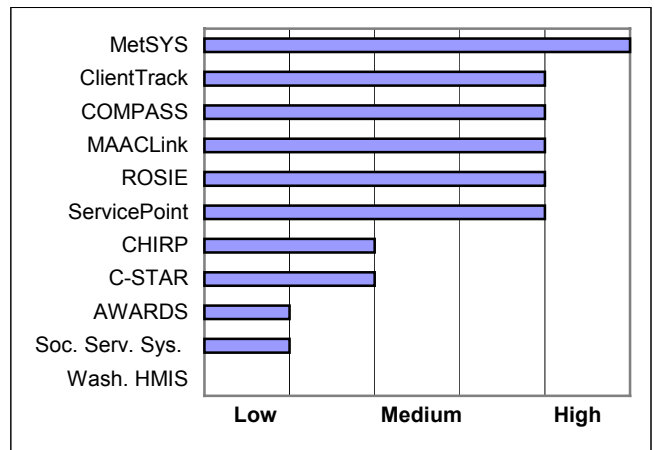
**Family Member Information**

Examples: Ability to group clients as household; relationship to head of household; member allowed to be in multiple families; family history; information about non-client family members. Ability to capture information specific to children.



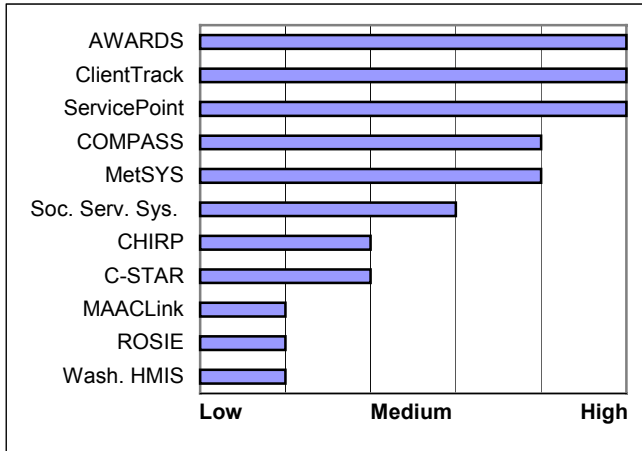
**Residential History**

Examples: Ability to add full addresses, as well as county and country with dates. Fields for multiple prior and current addresses.



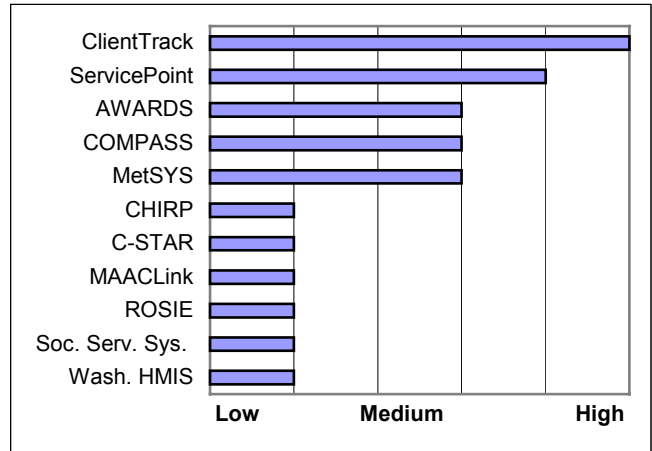
**Medical and Mental Health Information**

Examples: Fields for health information; health problems grouped into categories; specific diseases or disabilities; medical history; diagnoses; treatment plans; medications; physician information; insurance; testing and screening history; and special fields related to mental health.



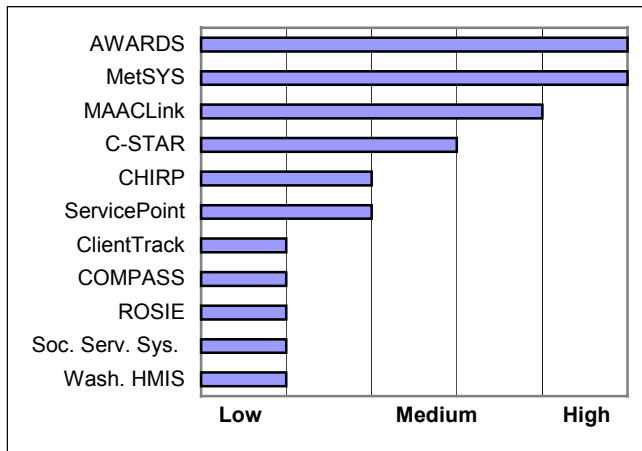
**Substance Abuse**

Examples: Fields for substance abuse; treatment history; treatment plan; relapse and recurrences; current status; types of substance; and location.



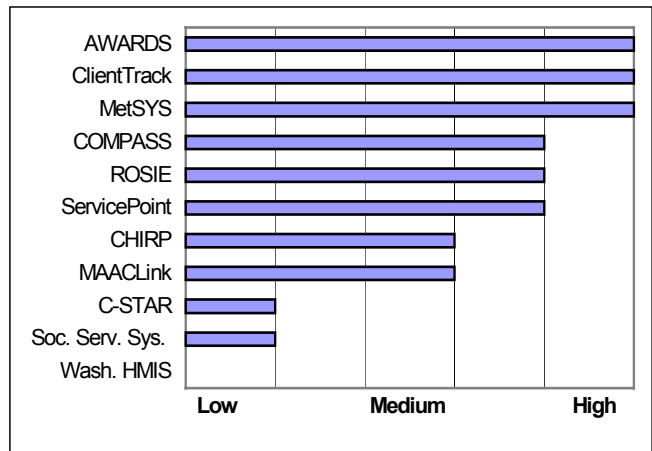
**Education**

Examples: Fields for highest education level; current enrollment status; educational history; and listing of each school attended.



**Employment History and Job Training**

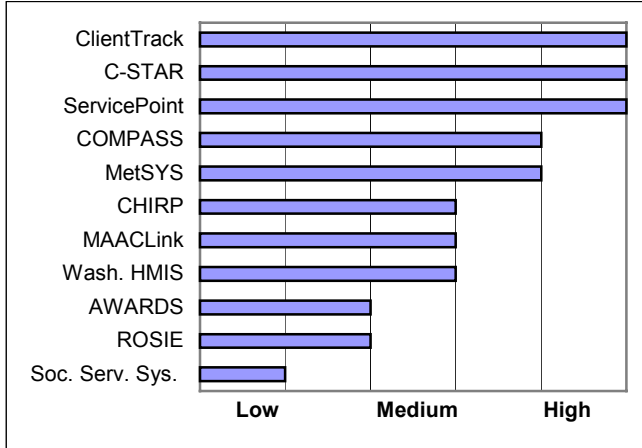
Examples: Fields for current employment; employment history; whether currently looking for work; type of work available; current and previous employer details; job skills; references; and job training classes attended.





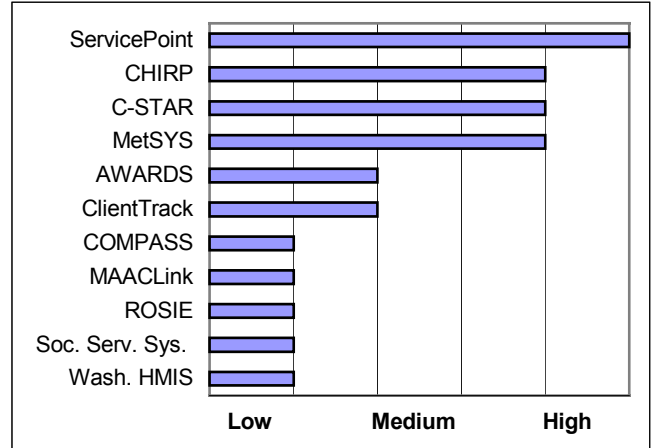
**Income History**

*Examples:* Income types and amounts; ability to maintain income history; record of income prior to stay; and record of income at exit and at follow-up. Client budgeting tools.



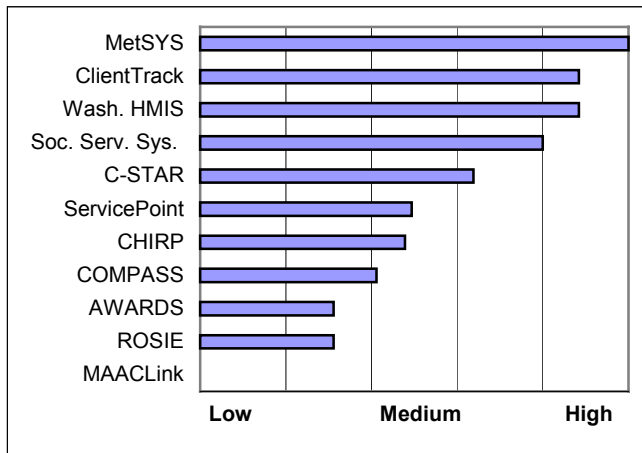
**Military Information**

*Examples:* Veteran status; verification of status; current military status; type of discharge; type of service; and dates of military service.



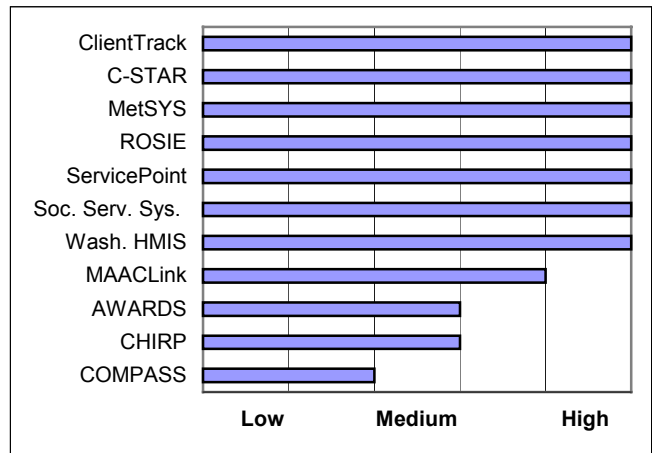
**Ability to Add Data Elements**

*Criteria:* Number of new elements allowed; ability to choose data type and field type (e.g., dropdown, text, radio button); and ability to place elements on any form.



**Ability to Modify Data Element Options**

*Criteria:* Ability to modify all or some pick lists; can be done by local administrator or provider only. Grouping pick lists into categories.



Training, Services, and Support

Table 37 displays the types of consulting, training and technical support available for each solution. The information is compiled from survey and testing data as well as from agency and vendor visits.

**Table 37: Training, Services, and Support**

<b>Category</b>	<b>Details</b>	<b>AWARDS</b>	<b>CHIRP</b>	<b>ClientTrack</b>	<b>COMPASS</b>	<b>C-STAR</b>	<b>MAACLInk</b>	<b>MetSYS</b>	<b>ROSIE</b>	<b>ServicePoint</b>	<b>Soc. Serv.Sys.</b>	<b>Wash. HMIS</b>
<b>Consulting</b>	<b>Process consulting</b>	Yes	Note #1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	<b>Customization/ configuration</b>	No	Note #1	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
	<b>Implementation</b>	Yes	Note #1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
<b>Training</b>	<b>User training</b>	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	<b>System admin training</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No
	<b>Developer training</b>	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	No
<b>Printed manual</b>	<b>User manual</b>	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
	<b>System admin manual</b>	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
	<b>Developer manual/ data dictionary</b>	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No
<b>Online support</b>	<b>Online help</b>	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes
	<b>Online bug reporting</b>	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
<b>Live support</b>	<b>Support time zone</b>	EST	N/A	MST	EST	PDT	CST	PST	CST	CST	EST	N/A
	<b>Email-based tech support</b>	24 Hrs.	Note #1	Ext. Hrs.	Ext. Hrs.	Bus. Hrs.	Ext. Hrs.	Ext. Hrs.	24 Hrs.	Bus. Hrs.	Ext. Hrs.	No
	<b>Phone-based tech support</b>	Bus. Hrs.	Note #1	Ext. Hrs.	Ext. Hrs.	Ext. Hrs.	Bus. Hrs.	Ext. Hrs.	24 Hrs.	24 Hrs.	Ext. Hrs.	No

Notes:  
1-CHIRP: Colorado Only

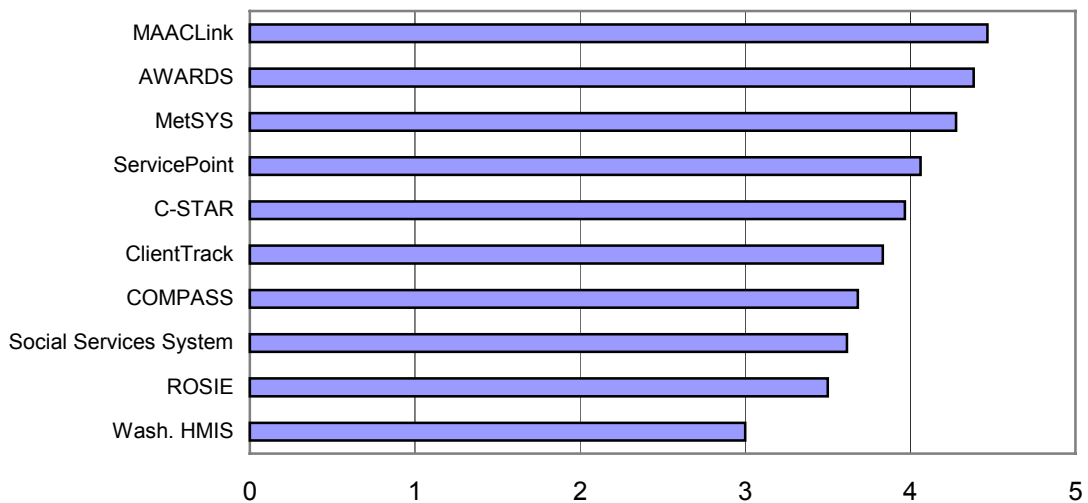
## Environment Scores

The figures in this section display the relative performance of 10 of the reviewed solutions in three evaluation environments. The eleventh solution, CHIRP, is not accessible over the Internet and, therefore, was not reviewed.

### *Newer Computers, High-Speed Internet*

Figure 42 displays the average performance score for each solution tested on computers purchased in early 2002, using high-speed, T1 Internet connections. The computers featured Pentium IV, 1.8 GHz processors and were running Windows 2000 or Windows XP.

**Figure 42: Newer Computers, High-Speed Internet Environment Scores**

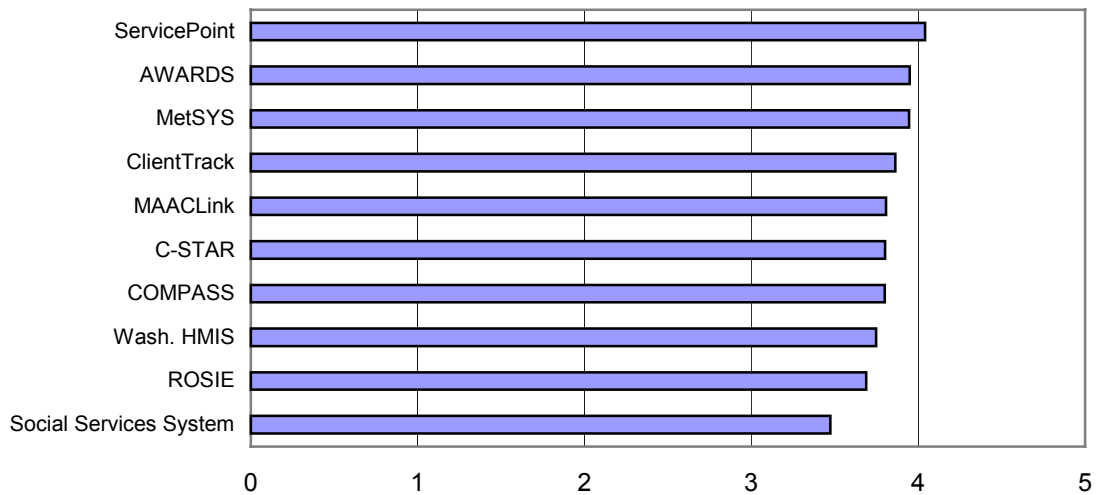


**Bar graph displaying Newer Computer, High-Speed Internet Environment Scores in descending order: MAACLink, AWARDS, MetSYS, ServicePoint, C-STAR, ClientTrack, COMPASS, Social Services System, ROSIE and Wash. HMIS.**

### *Older Computers, High-Speed Internet Connection*

Figure 43 displays the average performance score for each solution tested on computers purchased in 1998 or earlier, using a high-speed Internet connection. The computers used were Pentium (133 MHz) or Pentium II (350 MHz) and were running Windows 98.

**Figure 43: Older Computers, High-Speed Internet Environment Scores**

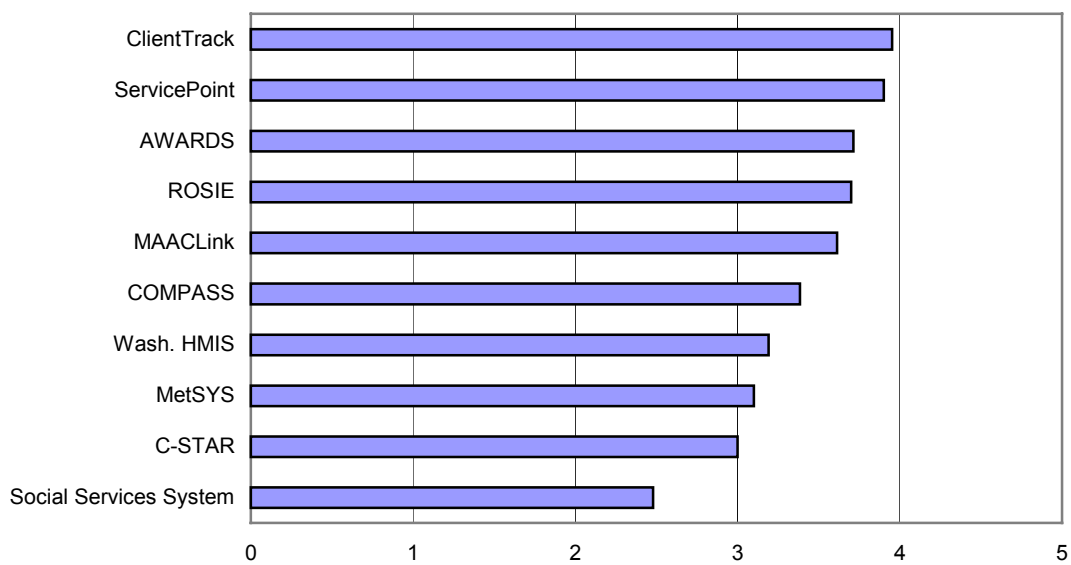


**Bar graph displaying Older Computers, High-Speed Internet Environment Scores in descending order: ServicePoint, AWARDS, MetSYS, ClientTrack, MAACLink, C-Star, COMPASS, Wash. HMIS, ROSIE, and Social Services System.**

### Older Computers, Dial-up Internet Connection

Figure 44 displays the average performance score for each solution tested on computers purchased in 1998 or earlier, using a dial-up Internet connection. The computers were Pentium II (350 MHz) and running Windows 98. A 56K modem was used; AOL was the Internet service provider.

**Figure 44: Older Computers, Dial-up Internet Environment Scores**



**Bar graph displaying Older Computers, Dial-up Internet Environment Scores in descending order: ClientTrack, ServicePoint, AWARDS, ROSIE, MAACLink, COMPASS, Wash. HMIS, MetSYS, C-STAR and Social Services System.**

### Technical Characteristics

Table 38 is divided into sections on minimum and recommended client hardware, client interface type, and networking and hosting options. The information is based primarily on survey responses.

**Table 38: Technical Characteristics**

Category	Details	AWARDS	CHIRP	ClientTrack	COMPASS	C-STAR	MAACLink	MetSYS	ROSIE	ServicePoint	Soc. Serv. Sys.	Wash. HMIS
<b>Minimum Client Hardware</b>	CPU / Processor Speed (MHz):	486	486	Pentium (100MHz)	486	486	386	Pentium (166 MHz)	Pentium (100 MHz)	Pentium (166 MHz)	Pentium (133 MHz)	Not listed
	RAM (MB):	8	Not listed	24	Not listed	Not listed	8	64	16	32	64	Not listed
	Operating System:	Not listed	Win 95	Not listed	Not listed	Not listed	Not listed	Win 98	Win 95	Not listed	Not listed	Not listed
<b>Recommended Client Hardware</b>	Processor / Speed (MHz):	Pentium II (300MHz)	Pentium	Pentium II (300 MHz)	Pentium (75MHz)	Pentium (700MHz)	Pentium	Pentium IV (700 MHz)	Pentium II	Pentium (933 MHz)	Pentium III (500MHz)	Not listed
	Memory (MB):	64	Not listed	128	Not listed	Not listed	8	128	32	Not listed	128	Not listed
	Operating System:	Not listed	Win 95 or higher	Not listed	Not listed	Not listed	Not listed	Win 2000 or Higher	Win 95,98,2000	Not listed	Not listed	Not listed
<b>Solution Architecture</b>	Stand-Alone:	No	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	No
	Client / Server (2-Tier):	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No
	3-Tier (e.g., web):	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
<b>User Interface</b>	Interface Type:	Browser	Access 97/2000 Windows Client	Full Client	Browser	Access 97 Windows Client	Citrix	Full Client or Browser Plugin	Citrix	Browser	Full Client or Browser Plugin	Browser
<b>Specific Browsers</b>	Internet Explorer (Min / Recommend):	4.0 / 5.5	n/a	n/a	5.0 / 6.0	n/a	n/a	4.0 / 6.0	n/a	4.0 / 5.0	3.0 / 6.0	5.0 / 5.5
	Netscape (Min / Recommend):	3.0 / 4.7-6.2	n/a	n/a	6.2 / 6.2	n/a	n/a	No	n/a	4.0 / 5.0	Not Supported	6.1 / 6.2
	AOL (Min / Recommend):	Any / 7.0	n/a	n/a	Not Supported	n/a	n/a	No	n/a	Not Supported	Not Supported	Any
<b>Database Location</b>	Centralized:	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Distributed (with replication):	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No
<b>Hosting</b>	ASP (Solution Provider):	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
	Licensing:	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes

## Total Cost of Operation

The total cost of operation accounts for many different factors. The HMIS system is the most obvious cost; however, there are numerous other solution expenses that must be considered. The actual cost of operation will vary depending on the community's specific implementation approach. Primary cost areas include:

- ◆ HMIS system expenses.
- ◆ Desktop computers (PCs), and printers for users and system administrators.
- ◆ HMIS solution training, technical support, and user support.
- ◆ Implementation consulting, configuration and data migration activities.
- ◆ Connectivity to the Internet, such as dial-up, DSL, cable, or a T1 line.
- ◆ Local Area Network (LAN) infrastructure, such as cables, routers, hubs, and switches.
- ◆ Equipment including servers and external disk storage; related installation; maintenance; data back-ups; and system administration, if a licensed HMIS solution is selected,

The cost estimates provided in this section are based on data supplied directly by each HMIS solution provider during the summer of 2002. HMIS solution providers were asked to calculate their costs for a set of four examples. Each example serves a different number of clients on an annual basis, and has a different number of sites and caseworkers. The examples each have estimates for low-end and high-end costs. The low-end assumptions include minimum expenditures, while the high-end assumptions contain extensive consulting, training, and support. Assumptions are documented in Table 39. The results are displayed in Tables 40, 41, 42, and 43; and in Figures 45, 46, 47, and 48.

The figures submitted by the HMIS solution providers include costs associated with the HMIS, as well as training, support, and implementation consulting. Costs do not include PC and printer costs, connectivity expenses, or expenditures for a LAN and servers. These expenses will need to be added to the costs displayed in the tables that follow. In order to obtain an accurate estimation, cost estimates for staff time should be calculated based on the type of solution being considered.

In general, the licensed versions of HMIS solutions require a higher up front investment, but have lower annual operating costs when compared to ASP versions. However, overall costs are likely to be comparable between licensed and ASP options, since a license-based community must also consider the long-term operating costs of purchasing, administering, and maintaining the servers and network. The cost estimates provided by Simplicity (Social Services System) and S.V.D.P. (C-STAR) are for license-based systems. The cost estimates for the other solutions are based on ASP solutions.

Pricing policies and external costs change over time; therefore, the estimates should be used only as a general rule and will vary over time depending on the circumstances of the implementation.

CHIRP and Washington HMIS are not included in these examples. They are shareware—distributed free of charge. However, both require the community to purchase and maintain the appropriate servers and LAN infrastructure, and cover connectivity, training, consulting, data migration, data back-ups, and system administration costs.

**Table 39: Example Assumptions**

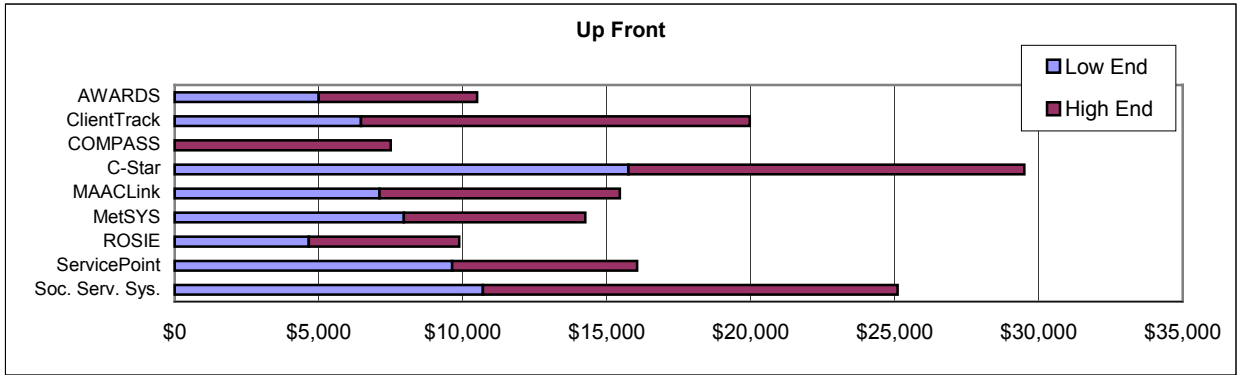
<b>General Assumptions</b>	<b>Single Agency</b>	<b>Small Community or Medium Agency</b>	<b>Medium Community or Large Agency</b>	<b>Large Community</b>
Agencies	1	3	20	60
Sites	2	5	40	120
Concurrent Users	2	4	22	70
Users / Passwords / Seats	8	15	100	350
Clients Serviced per Year	50	300	2,000	10,000
Solution Core Components	- Any database licenses required - Any interface licenses required (Citrix, etc) - Any server-side licenses required	- Any database licenses required - Any interface licenses required (Citrix, etc) - Any server-side licenses required	- Any database licenses required - Any interface licenses required (Citrix, etc) - Any server-side licenses required	- Any database licenses required - Any interface licenses required (Citrix, etc) - Any server-side licenses required
<b>Low End Assumptions</b>				
Solution Options	Minimal Implementation	Minimal Implementation	Minimal Implementation	Minimal Implementation
Training Delivered	- 6 users in one-on-one sessions - 1 sys admin in one-on-one session	- 10 users in 1 session - 1 sys admin in 1 session	- 25 users over 4 sessions - 2 sys admins over 2 sessions	- 100 users over 8 sessions - 3 sys admins over 2 sessions
Consulting Delivered	10 hours of installation-related consulting	20 hours of installation-related consulting	200 hours of installation-related consulting	1,000 hours for installation-related consulting
Support Used	20 hours of support intended to cover the sys admin primarily	20 hours of support intended to cover the sys admin and 3 power users	20 hours of support intended to cover the 2 sys admin and 15 power users	20 hours of support intended to cover the 3 sys admins and 40 power users
Start-up Disk Space	100 MB	100 MB	100 MB	100 MB
Disk Space Added per Year	50 MB	300 MB	1.2 GB	5 GB
<b>High End Assumptions</b>				
Solution Options	All Modules, Plug-ins, Options (including High End Report Writer & Security as applicable)	All Modules, Plug-ins, Options (including High End Report Writer & Security as applicable)	All Modules, Plug-ins, Options (including High End Report Writer & Security as applicable)	All Modules, Plug-ins, Options (including High End Report Writer & Security as applicable)
Training Delivered	-8 users over 2 sessions - 1 sys admin in 2 sessions & one-on-one sessions	- 15 users in 2 sessions - 2 sys admin in 2 sessions	- 60 users over 10 sessions - 4 sys admins over 3 sessions	- 200 users over 15 sessions - 5 sys admins over 5 sessions
Consulting Delivered	75 hours for installation and data migration consulting	100 hours for installation and data migration consulting	800 hours for installation and data migration consulting	3,000 hours for installation and data migration consulting
Support Used	40 hours of support intended to cover all 8 users & sys admin	60 hours of support intended to cover all 15 users & sys admin	160 hours of support intended to cover all 100 users & 2 sys admins	320 hours of support intended to cover all 350 users & 3 sys admins



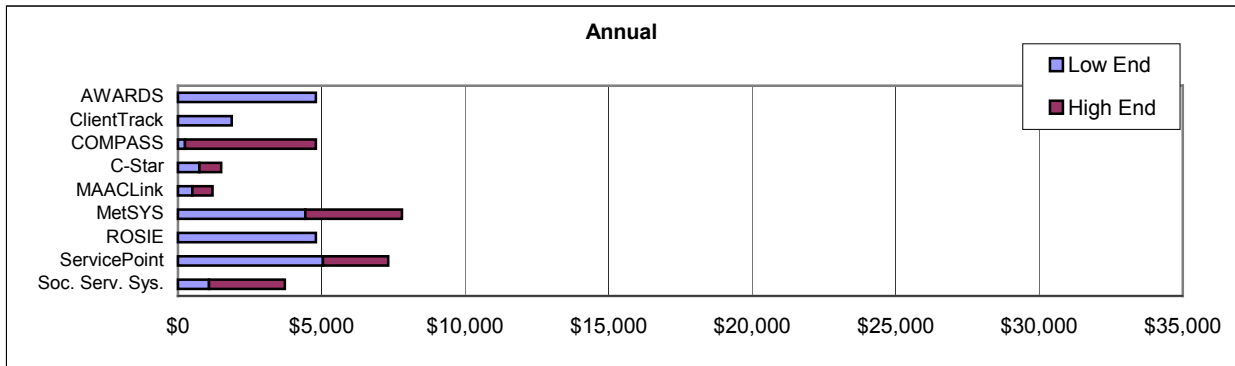
**Table 40: Single Agency**

Solution	Up Front		Annual		Total Over Five Years	
	Low End	High End	Low End	High End	Low End	High End
AWARDS	\$ 5,000	\$ 10,500	\$ 4,800	\$ 4,800	\$ 29,000	\$ 34,500
ClientTrack	\$ 6,470	\$ 19,965	\$ 1,872	\$ 1,872	\$ 15,830	\$ 29,325
COMPASS	\$ -	\$ 7,500	\$ 250	\$ 4,800	\$ 1,250	\$ 31,500
C-STAR	\$ 15,750	\$ 29,500	\$ 1,500	\$ 750	\$ 23,250	\$ 33,250
MAACLink	\$ 7,110	\$ 15,450	\$ 500	\$ 1,200	\$ 9,610	\$ 21,450
MetSYS	\$ 7,950	\$ 14,250	\$ 4,440	\$ 7,800	\$ 30,150	\$ 53,250
ROSIE	\$ 4,650	\$ 9,875	\$ 4,800	\$ 4,800	\$ 28,650	\$ 33,875
ServicePoint	\$ 9,630	\$ 16,050	\$ 5,048	\$ 7,323	\$ 34,870	\$ 52,665
Social Services System	\$ 14,700	\$ 25,100	\$ 1,500	\$ 3,720	\$ 22,200	\$ 43,700

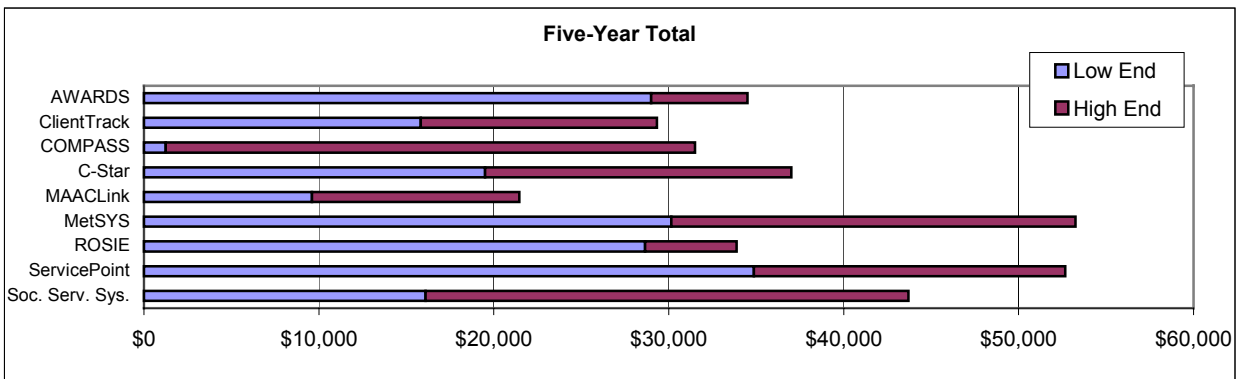
**Figure 45: Single Agency Up Front, Annual, and Five-Year Total Costs**



**Bar graph displaying Single Agency Up Front Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, ServicePoint, and Social Services System.**



**Bar graph displaying Single Agency Annual Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, ServicePoint, and Social Services System.**

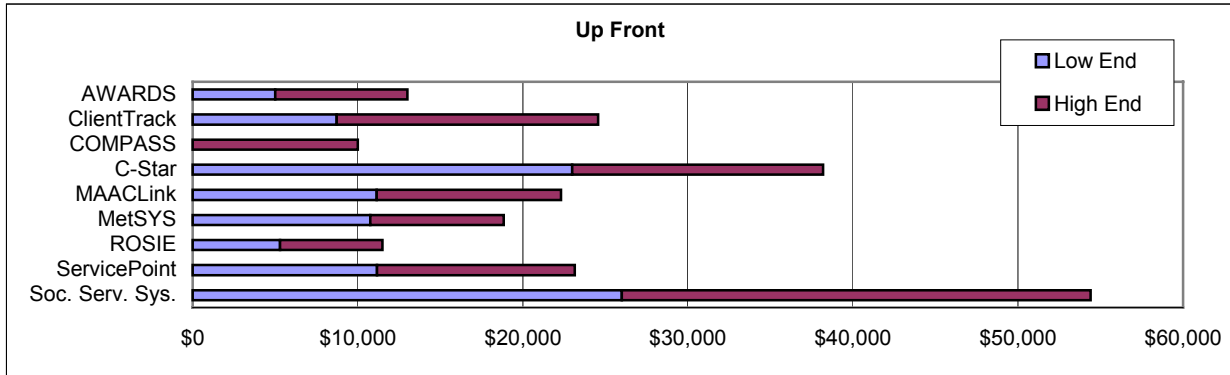


**Bar graph displaying Single Agency Five Year Total Costs alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, ServicePoint, and Social Services System.**

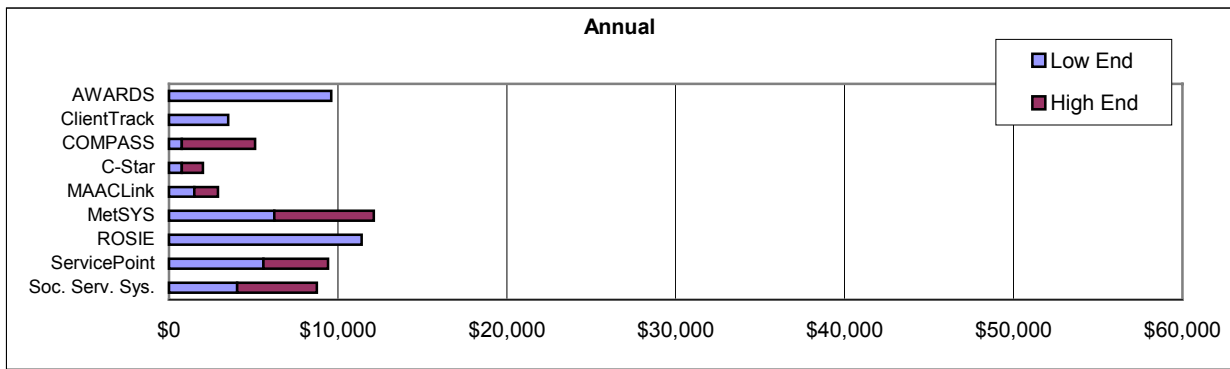
**Table 41: Small Community or Equivalent Medium Agency**

Solution	Up Front		Annual		Total Over Five Years	
	Low End	High End	Low End	High End	Low End	High End
AWARDS	\$ 5,000	\$ 13,000	\$ 9,600	\$ 9,600	\$ 53,000	\$ 61,000
ClientTrack	\$ 8,720	\$ 24,565	\$ 3,510	\$ 3,510	\$ 26,270	\$ 42,115
COMPASS	\$ -	\$ 10,000	\$ 750	\$ 5,100	\$ 3,750	\$ 35,500
C-STAR	\$ 23,000	\$ 38,200	\$ 750	\$ 2,000	\$ 33,000	\$ 41,950
MAACLink	\$ 11,140	\$ 22,320	\$ 1,500	\$ 2,900	\$ 18,640	\$ 36,820
MetSYS	\$ 10,750	\$ 18,850	\$ 6,240	\$ 12,120	\$ 41,950	\$ 79,450
ROSIE	\$ 5,300	\$ 11,500	\$ 11,400	\$ 11,400	\$ 62,300	\$ 68,500
ServicePoint	\$ 11,160	\$ 23,150	\$ 5,590	\$ 9,415	\$ 39,110	\$ 70,225
Social Services System	\$ 38,000	\$ 54,400	\$ 5,300	\$ 8,760	\$ 64,500	\$ 98,200

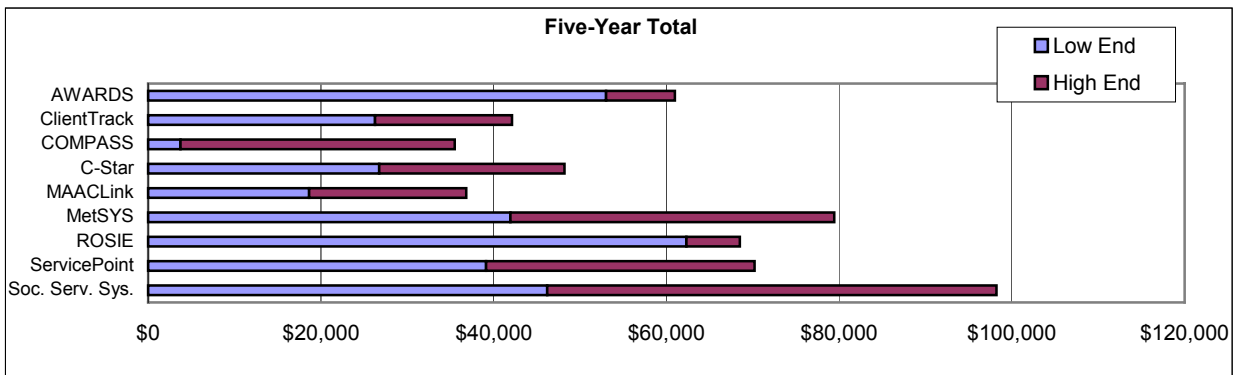
**Figure 46: Small Community or Equivalent Medium Agency Up Front, Annual, and Five-Year Total Costs**



Bar graph displaying Small Community or Equivalent Medium Agency Up Front Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, ServicePoint, and Social Services System.



Bar graph displaying Small Community or Equivalent Medium Agency Annual Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, ServicePoint, and Social Services System.

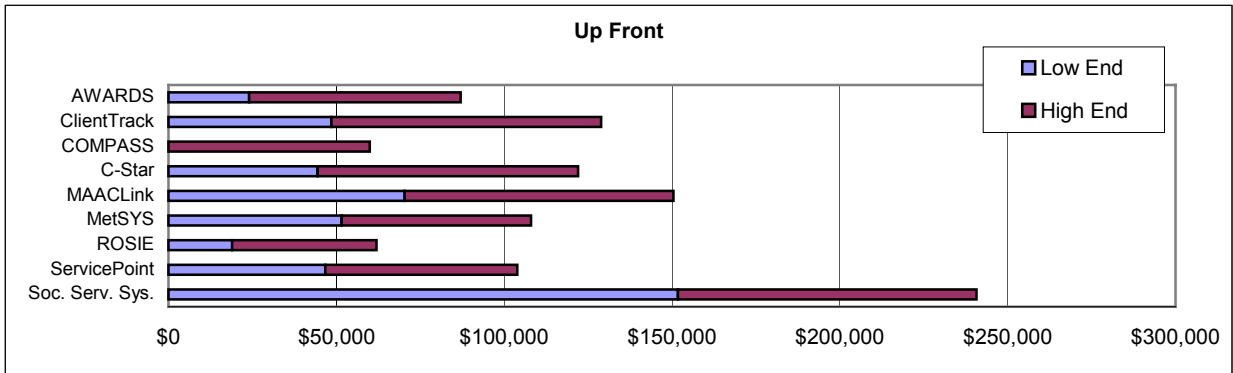


Bar graph displaying Small Community or Equivalent Medium Agency Five Year Total Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, ServicePoint, and Social Services System.

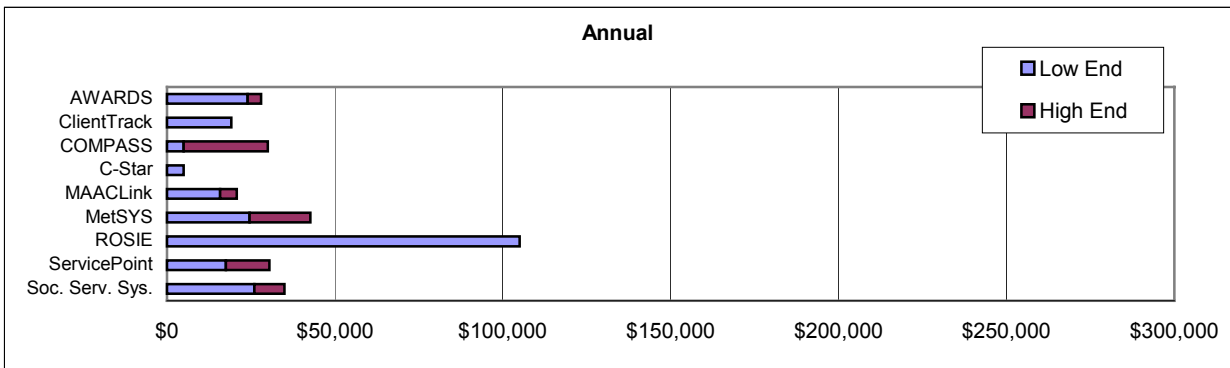
**Table 42: Medium Community or Equivalent Large Agency**

Solution	Up Front		Annual		Total Over Five Years	
	Low End	High End	Low End	High End	Low End	High End
AWARDS	\$ 24,000	\$ 87,000	\$ 24,000	\$ 28,000	\$ 144,000	\$ 227,000
ClientTrack	\$ 48,570	\$ 128,910	\$ 19,200	\$ 19,200	\$ 144,570	\$ 224,910
COMPASS	\$ -	\$ 60,000	\$ 5,000	\$ 30,000	\$ 25,000	\$ 210,000
C-STAR	\$ 44,400	\$ 122,000	\$ 5,000	\$ 5,000	\$ 69,400	\$ 147,000
MAACLink	\$ 70,335	\$ 150,475	\$ 15,850	\$ 20,750	\$ 149,585	\$ 254,225
MetSYS	\$ 51,600	\$ 108,000	\$ 24,600	\$ 42,720	\$ 174,600	\$ 321,600
ROSIE	\$ 19,000	\$ 62,000	\$ 105,000	\$ 105,000	\$ 544,000	\$ 587,000
ServicePoint	\$ 46,665	\$ 103,930	\$ 17,550	\$ 30,500	\$ 134,415	\$ 256,430
Social Services System	\$ 181,800	\$ 240,700	\$ 26,900	\$ 35,000	\$ 316,300	\$ 415,700

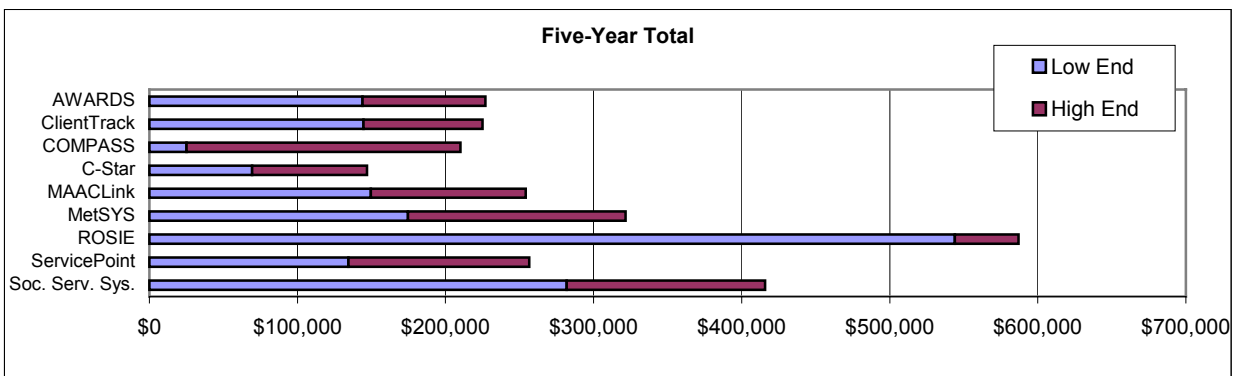
**Figure 47: Medium Community or Equivalent Large Agency Up Front, Annual, and Five-Year Total Costs**



Bar graph displaying Medium Community or Equivalent Large Agency Up Front Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, Service Point, and Social Services System.



Bar graph displaying Medium Community or Equivalent Large Agency Annual Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, Service Point, and Social Services System.

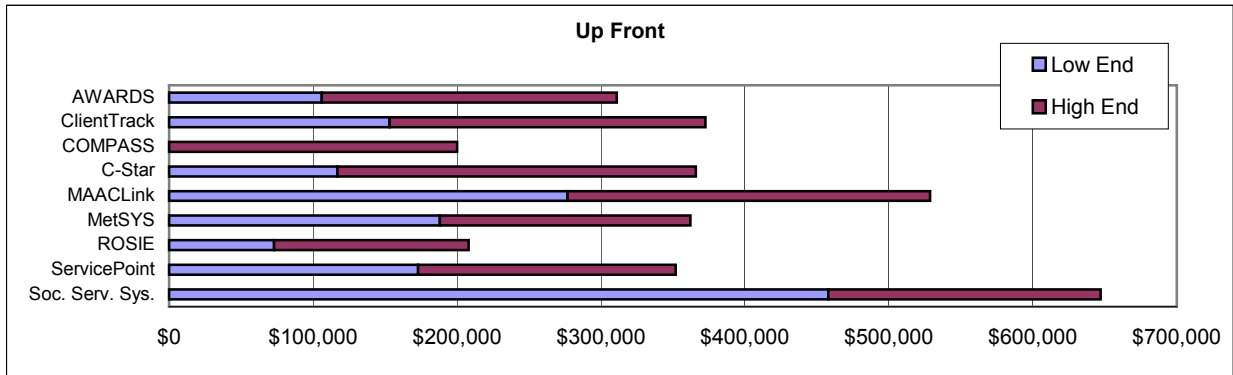


Bar graph displaying Medium Community or Equivalent Large Agency Five Year Total Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, Service Point, and Social Services System.

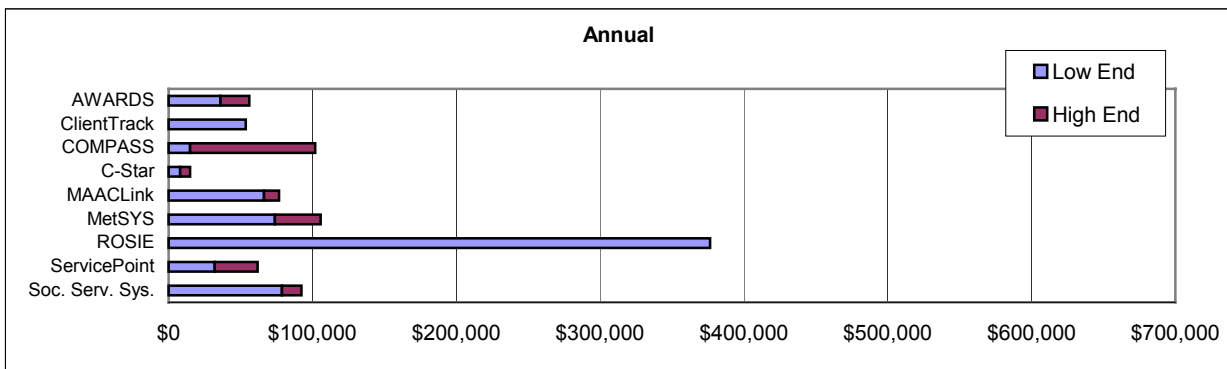
**Table 43: Large Community**

Solution	Up Front		Annual		Total Over Five Years	
	Low End	High End	Low End	High End	Low End	High End
AWARDS	\$ 106,000	\$ 311,000	\$ 36,000	\$ 56,000	\$ 286,000	\$ 591,000
ClientTrack	\$ 153,070	\$ 372,470	\$ 53,550	\$ 53,550	\$ 420,820	\$ 640,220
COMPASS	\$ -	\$ 200,000	\$ 15,000	\$ 102,000	\$ 75,000	\$ 710,000
C-STAR	\$ 117,000	\$ 366,000	\$ 8,000	\$ 15,000	\$ 157,000	\$ 441,000
MAACLink	\$ 276,725	\$ 528,565	\$ 66,200	\$ 76,700	\$ 607,725	\$ 912,065
MetSYS	\$ 187,958	\$ 362,168	\$ 73,800	\$ 105,600	\$ 556,958	\$ 890,168
ROSIE	\$ 73,000	\$ 208,000	\$ 376,500	\$ 376,500	\$ 1,955,500	\$ 2,090,500
ServicePoint	\$ 172,995	\$ 351,945	\$ 31,970	\$ 61,820	\$ 332,845	\$ 661,045
Social Services System	\$ 488,000	\$ 647,000	\$ 72,500	\$ 92,300	\$ 850,500	\$ 1,108,500

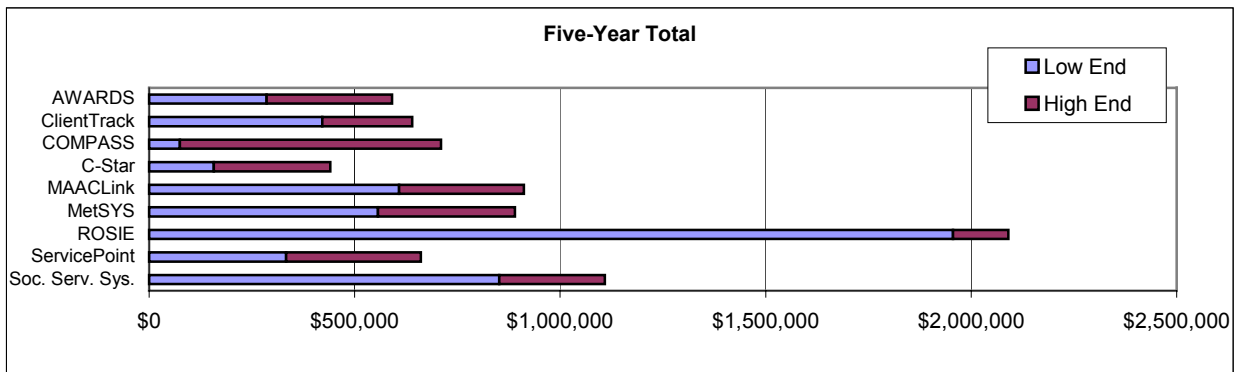
**Figure 48: Large Community Up Front, Annual, and Five-Year Total Costs**



Bar graph displaying Large Community Up Front Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, ServicePoint, and Social Services System.



Bar graph displaying Large Community Annual Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, ServicePoint, and Social Services System.



Bar graph displaying Large Community Five Year Total Costs in alphabetical order: AWARDS, ClientTrack, COMPASS, C-STAR, MAACLink, MetSYS, ROSIE, ServicePoint, and Social Services System.