Skagit County, Washington

Emergency Medical Services
Review Budgets, Financial Polices, and Levy Allocation Methodologies

The PFM Group
Public Financial Management, Inc.
PFM Asset Management LLC
PFM Advisors

Final Report, April 2014

Context for PFM's Financial Review

- PFM was engaged by Skagit County to:
  - Review the financial capacity of the system, including the EMS Commission and three (3) service providers (Anacortes, CVAA, and Aero Skagit)
  - Review current financial policies and make recommendations for implementing best-practices in financial management, capital and operating reserve policies, vehicle replacement, and performance
  - Develop options to allocate EMS levy funds to service providers in a transparent, equitable, and fiscally prudent manner that is based on performance and needs of the community

Context for PFM's Financial Review

- PFM's work was done as a follow-up to a study completed in March 2013 titled, "*EMS System Evaluation and Management Plan"* conducted by Emergency Services Consulting International (ESCI).
- PFM relied on ESCI's detailed analysis and evaluation of system operations in the development of our financial review and recommendation.
- PFM's analysis supports many of the conclusions reached by ESCI and moves the County forward toward implementation.

Summary of Findings

- Given current service demand, the Skagit County EMS system is able to fund the necessary services to meet EMS demand in the County.
- Information from dispatch and providers on system performance is lacking, but getting better.
- There is a need to align the County and provider levy allocation expectations through a financial strategic plan.
- There is not a strong connection between system performance and levy funding.
- Requiring performance-based funding allocations will provide the County with data to ensure an effective and fair allocation of levy funds throughout the County.

Summary of Recommendations

- The County should adopt financial policies to provide guidance on how EMS levy funds are used, and to provide targets for operating and capital reserves
- The County should allocate EMS levy funds based on what is needed first to provide a basic level of service (for example, one ambulance in each of the three geographic service areas) with additional units provided based on proof of need to meet County-established performance metrics
- Performance standards:
  - Should be tracked across a variety of measures to ensure proper operating as well as financial performance
  - Should assist in evaluating future changes in service delivery to ensure that they are effective and efficient

- To add

Budget Review

Summary of Budget Findings

- Budget information and reporting is not uniform between the three (3) service providers. This makes it difficult to compare financial results
- Anacortes's budget is based on a combination of direct and allocated costs, due to its structure as both a City-wide fire agency and EMS provider. This differs from CVAA and Aero Skagit, which are stand-alone providers. This makes it difficult to compare direct vs. administrative costs between agencies
- CVAA's projected need for levy allocations through 2018 far exceeds the EMS Commission's projections or ability to fund
- There is a lack of a connection between each service provider's budget, levy allocation, and system performance

Assessed Value Forecasts

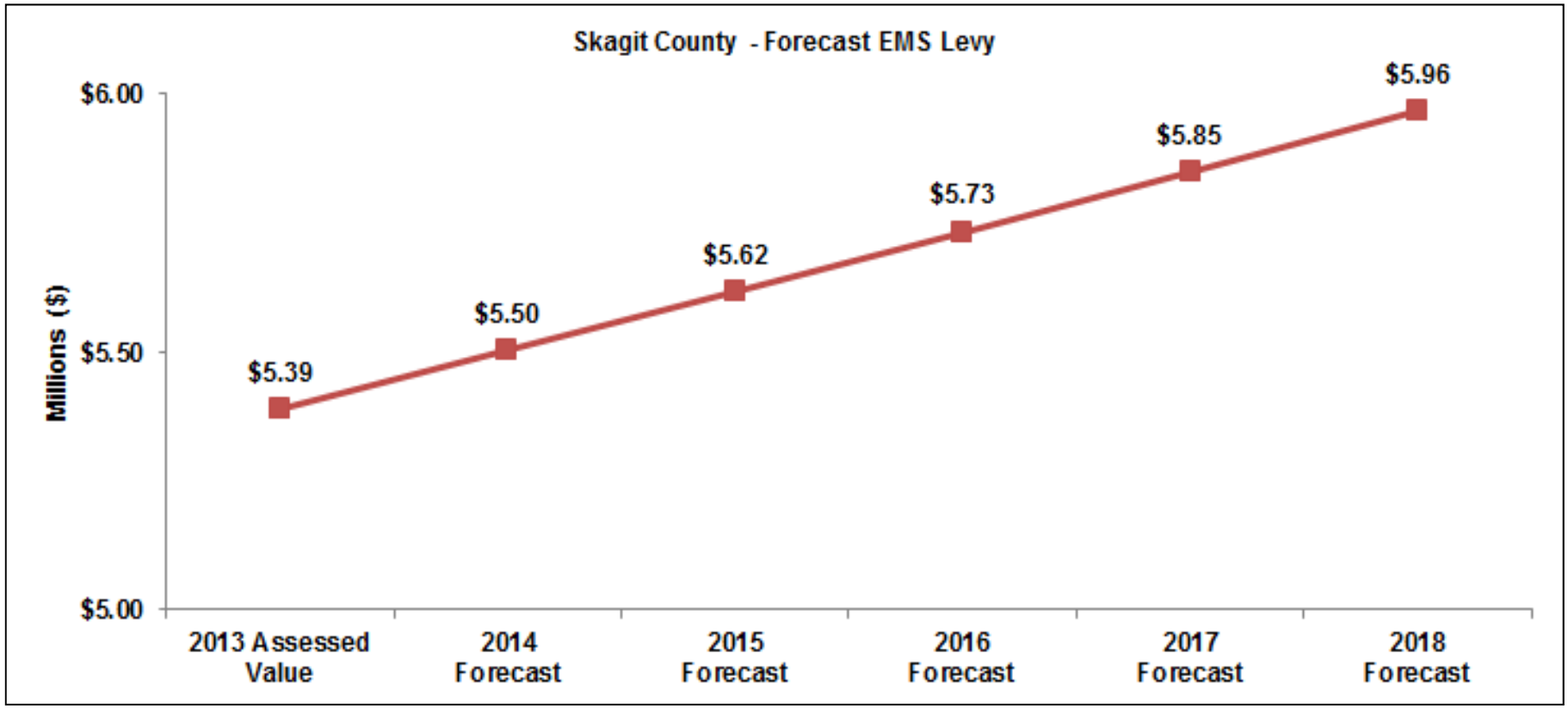
- Skagit County's EMS Levy is **$0.375 per $1,000** of assessed value (AV) as of 2013
- The County Assessor's Office forecasts AV to increase by **2.0%** in 2014, increasing thereafter by an additional 0.5% per year until attaining **3.5%** in 2017 and 2018

Year	Historical AV & Assessor's Forecast	Year-to-Year % Annual Growth
2000	$7,884,022,993	--
2001	$8,600,516,207	9.1%
2002	$9,109,187,252	5.9%
2003	$9,635,294,684	5.8%
2004	$10,221,638,386	6.1%
2005	$11,594,699,782	13.4%
2006	$14,004,423,861	20.8%
2007	$16,166,682,507	15.4%
2008	$16,868,200,169	4.3%
2009	$15,989,575,730	-5.2%
2010	$15,210,471,781	-4.9%
2011	$14,494,671,744	-4.7%
2012	$14,164,054,879	-2.3%
2013	$14,370,022,271	1.5%
2014	$14,657,422,716	2.0%
2015	$15,023,858,284	2.5%
2016	$15,474,574,033	3.0%
2017	$16,016,184,124	3.5%
2018	$16,576,750,568	3.5%

Source: Skagit County Assessor's Office

County-wide EMS Levy Revenue

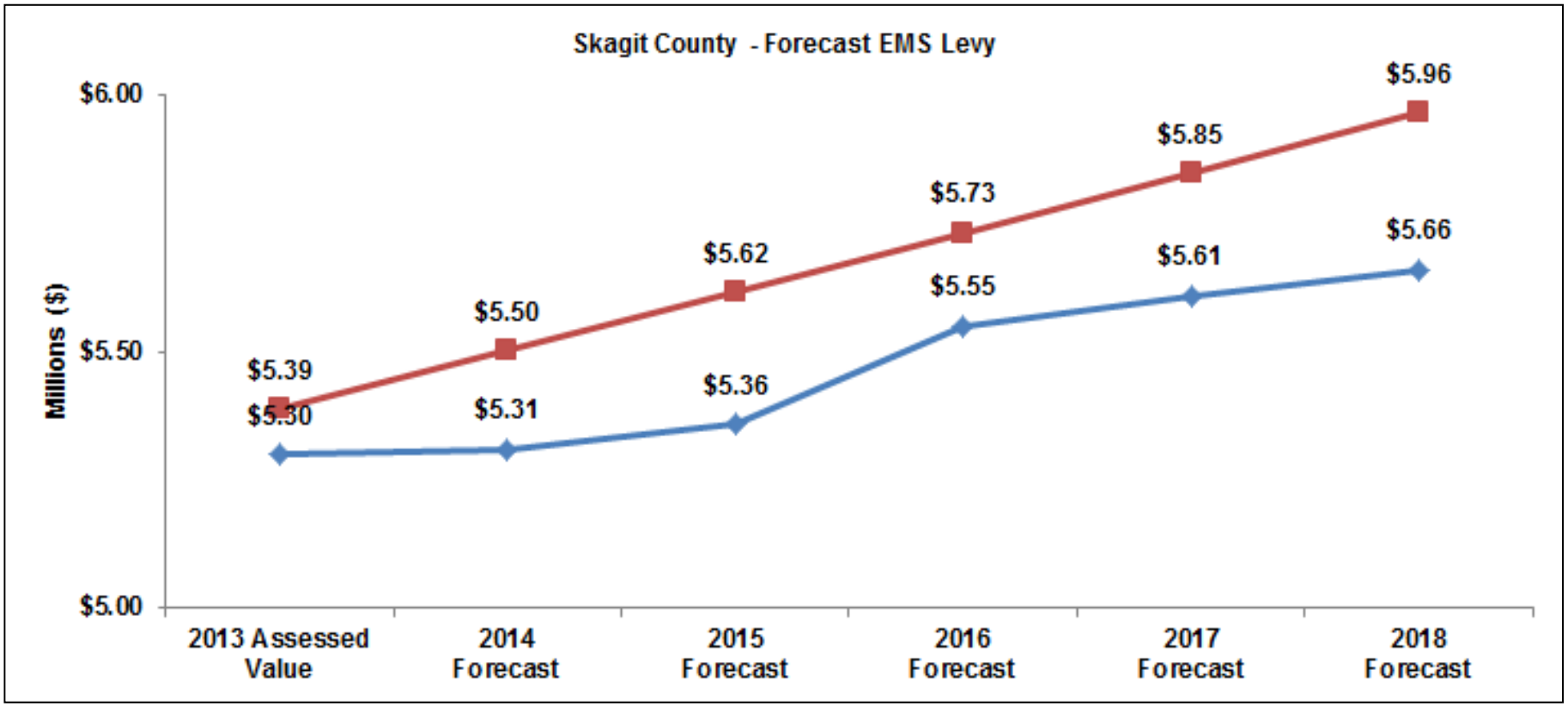
- Based on the Assessor's forecast for growth in AV, base EMS levy is expected to grow by the 1% per year limitation. Inclusive of projected new construction, total EMS levy revenue will grow by approximately 2.0% per year.



County EMS Commission

EMS Levy Revenue

- The EMS Commission's forecast levy revenue is highly consistent with PFM's baseline forecast



County EMS Commission Forecast

Net Operating Revenues & Expenditures

- The EMS Commission's budget forecast traditionally included an automatic 4.0% annual increase in contract allocations to EMS providers from 2014 through 2018 (PFM is proposing a performance-based allocation to guide future levy changes)
- The EMS Levy accounts for approximately **95%** of the EMS Commission's revenues, and was the focus of PFM's revenue review

	2013 Actual	2014 Budget	2015 Forecast	2016 Forecast	2017 Forecast	2018 Forecast
Revenue*						
Training	$57,096	$51,700	$41,915	$42,334	$42,757	$43,185
Timber Taxes	$167,500	$270,000	$270,000	$270,000	$270,000	$270,000
EMS Levy	$5,304,680	$5,311,521	$5,357,727	$5,593,254	$5,649,187	$5,762,736
Other	$58,889	$31,700	$31,737	$31,774	$31,812	$31,850
Total Revenue	**$5,588,165**	**$5,664,921**	**$5,701,379**	**$5,937,363**	**$5,993,757**	**$6,107,771**
Expense						
Administration	$665,000	$773,322	$809,498	$847,778	$888,132	$930,690
Training	$501,217	$555,341	$586,631	$600,770	$626,705	$654,022
Capital	$677,500	$1,050,000	$200,000	$0	$215,000	$0
Service Provider Allocations	$3,406,321**	$3,125,904	$3,250,940	$3,380,978	$3,516,217	$3,656,866
Total Expense	**$5,250,038**	**$5,504,566**	**$4,847,069**	**$4,829,526**	**$5,246,055**	**$5,241,578**
Revenue Less Expense	**$338,127**	**$160,355**	**$854,310**	**$1,107,836**	**$747,702**	**$866,193**

** Revenues do not include Fund Balance Transfers for Capital*
*** Includes an additional subvention of $280,417 to the CVAA from the EMS Commission in 2013*

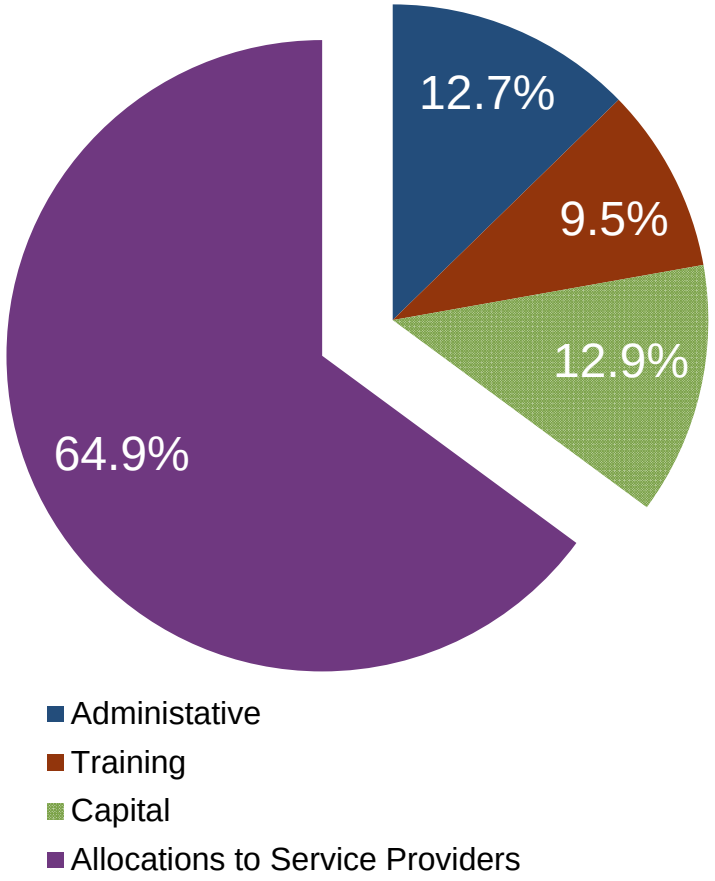
County EMS Commission

2013 Expenditures

- **64.9%** of the EMS Commission's expenditures are allocations to the three EMS service providers (Anacortes, CVAA, and Aero Skagit)
- Administration and Training account for approximately 22.2% of expenditures

**Capital expenditures of $677,500 in 2013. Based on a high-level capital needs assessment, PFM forecasts capital expenditures to average $350,000 per year, with peaks and troughs in any given year.*

2013 EMS Commission Expense by Major Category



Service Provider Budget Forecasts

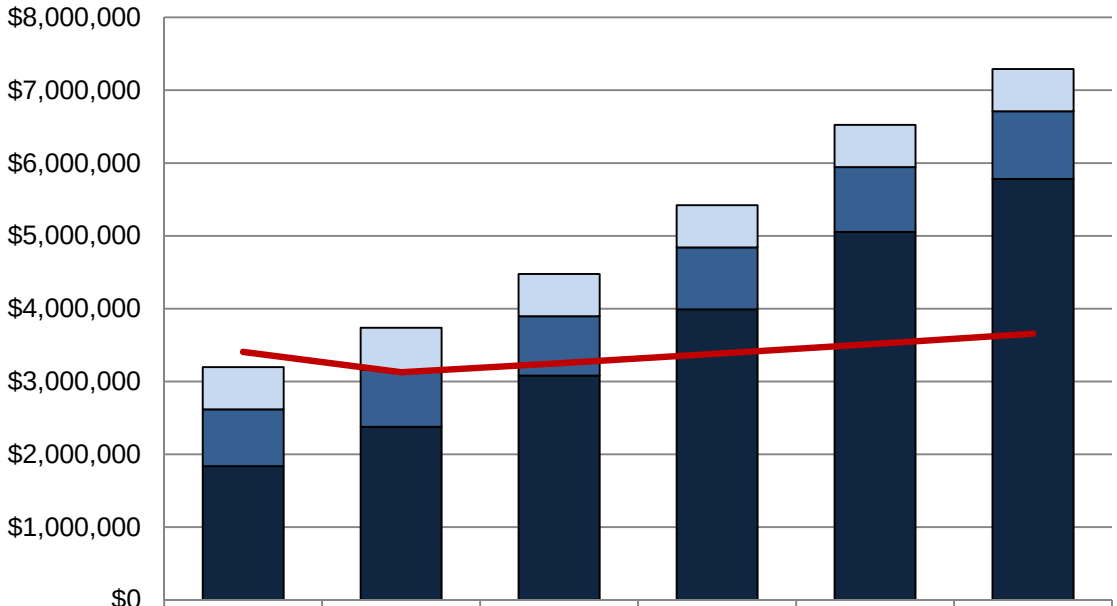
EMS Levy

- The EMS Commission's allocation of levy dollars to service providers does not keep pace with provider forecasts, driven primarily by CVAA who forecasts a 143% increase in just 4 years (2014 – 2018)

"Controlling annual increases in levy support requests and determining the appropriate level of support to the individual providers will be critical to maintaining the long term fiscal health of the system."

- Emergency Services Consulting International, EMS System Evaluation and Management Plan, March 2013

EMS Commission Contract Allocations v. Service Provider Forecasts

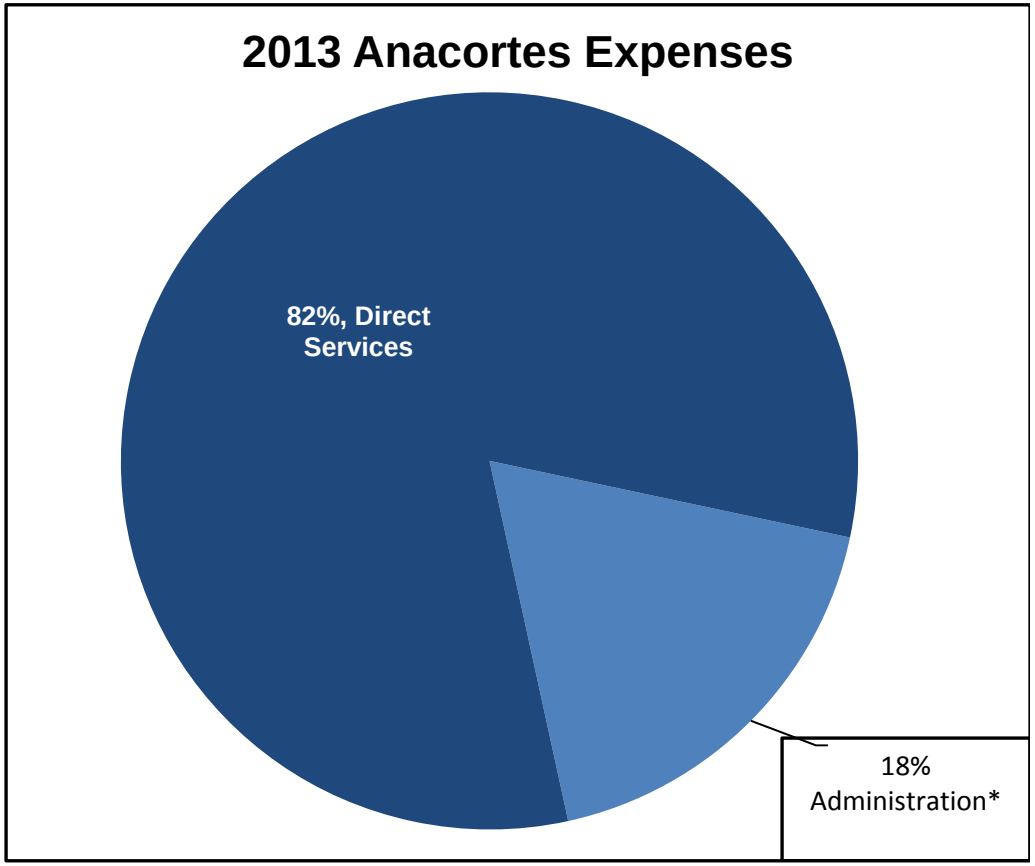


	2013	2014	2015	2016	2017	2018
Aero Skagit	$580,000	$580,000	$580,000	$580,000	$580,000	$580,000
Anacortes	$780,000	$780,000	$815,100	$851,780	$890,110	$930,165
CVAA	$1,836,520	$2,378,325	$3,081,324	$3,990,040	$5,054,395	$5,781,002
EMS Commission - Allocation Estimates	$3,406,321	$3,125,904	$3,250,940	$3,380,978	$3,516,217	$3,656,866

Anacortes

- The Anacortes administration budget is double what Aero-Skagit and CVAA spend.

	2013
Revenues	
Levy Allocation	$783,224
User Fees	$744,948
Other	$1,128,876
Total Revenue	$2,657,048
Expenses	
Wages & Benefits	$2,200,016
Material, Services, and Supplies	$316,899
Total Expenditures	$2,516,915
Total Transports	1,590
Total Revenue per Transport	$1,671
Levy Revenue per Transport	$493
User Fees per Transport	$469

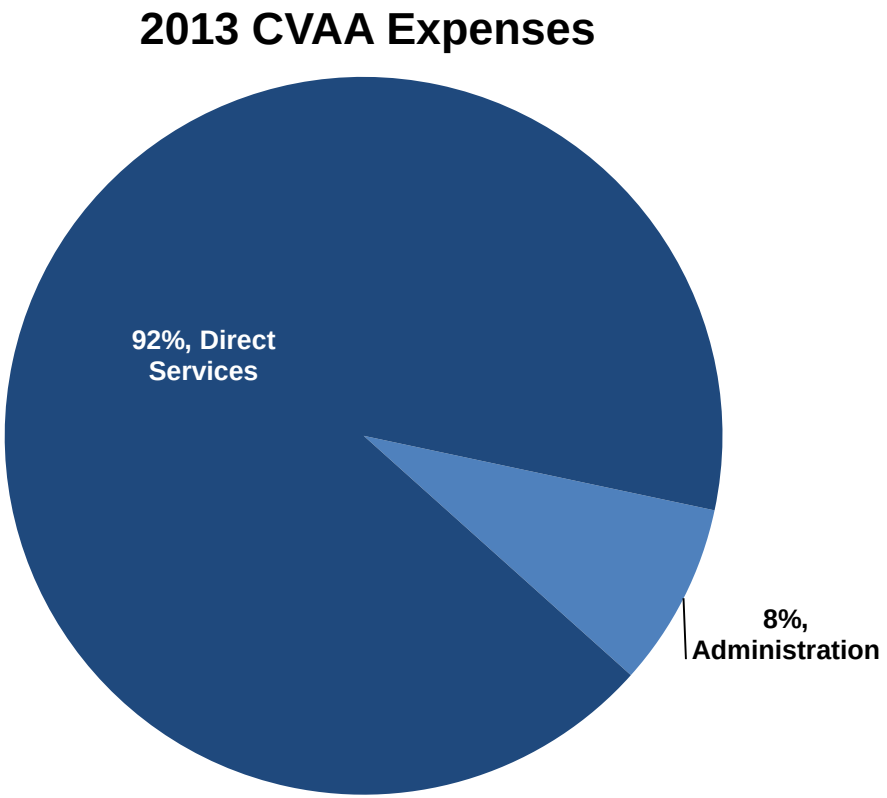


Note: "Other" revenues includes the City's General Fund allocation for EMS as determined by the City.

* Anacortes has updated admin. allocations since original provision of financial data. Budgeted administration costs are more in line with other providers

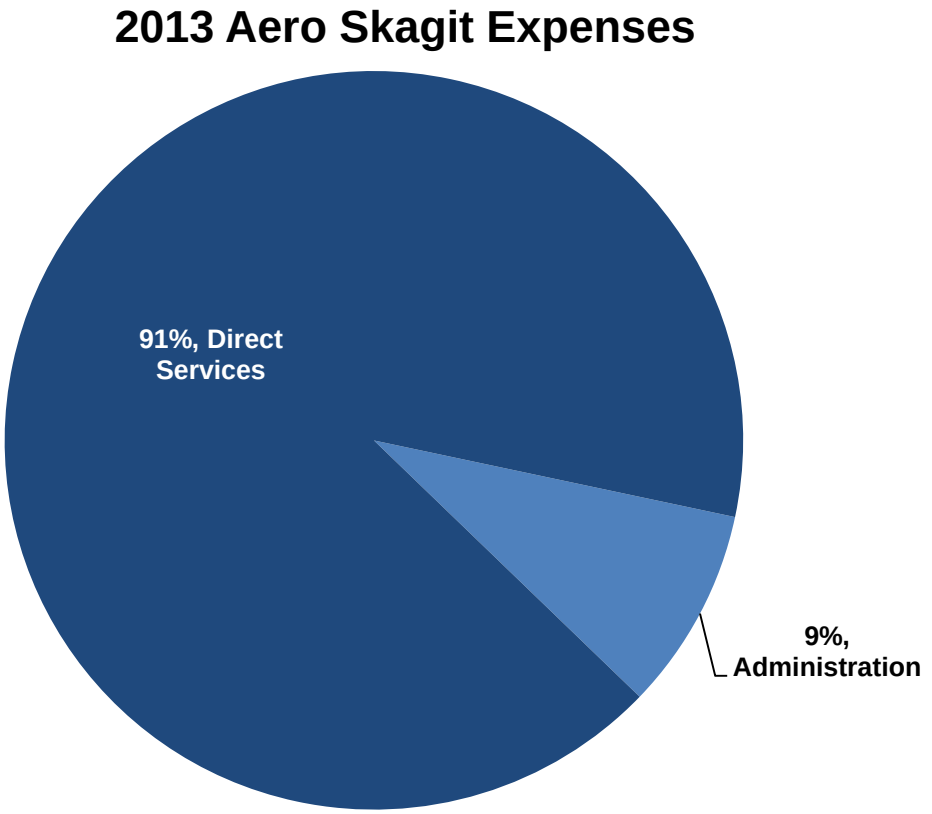
CVAA

	2013
Revenues	
Levy Allocation	$1,836,520
User Fees	$2,264,400
Other	$0
Total Revenue	$4,100,920
Expenses	
Wages & Benefits	$3,654,981
Material, Services, and Supplies	$580,655
Total Expenditures	$4,235,636
Total Transports	5,897
Total Revenue per Transport	$695
Levy Revenue per Transport	$311
User Fees per Transport	$384



Aero Skagit

	2013
Revenues	
Levy Allocation	$580,000
User Fees	$171,778
Donations and Grants	$4,960
Total Revenue	$756,738
Expenses	
Wages & Benefits	$588,361
Material, Services, and Supplies	$127,625
Total Expenditures	$715,986
Total Transports	315
Total Revenue per Transport	$2,402
Levy Revenue per Transport	$1,841
User Fees per Transport	$545



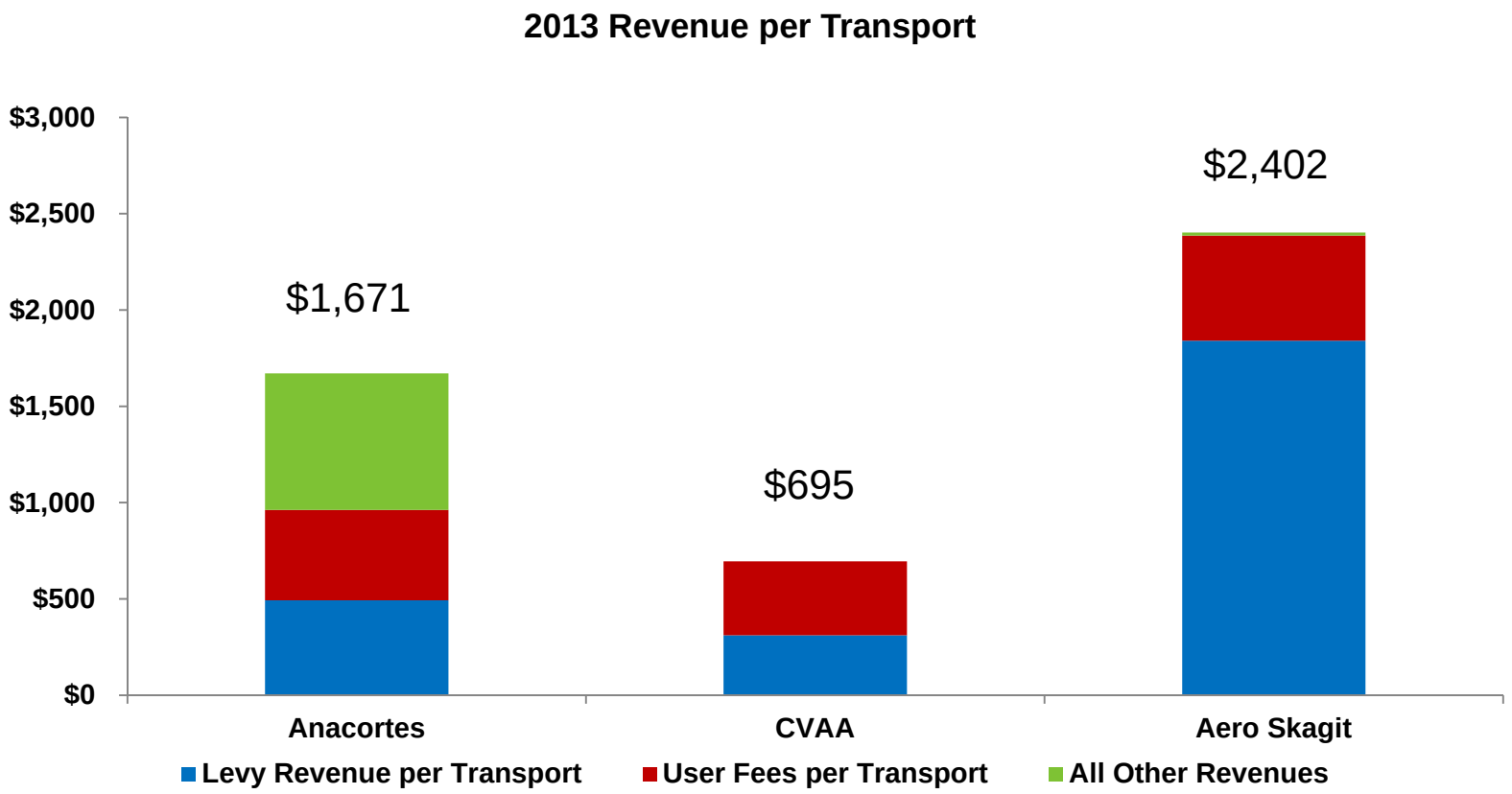
Note: Excludes revenues and expenditures for capital purchases.

Summary Comparison

	Anacortes	CVAA	Aero Skagit
Revenues			
Levy Allocation	$783,224	$1,836,520	$580,000
User Fees	$744,948	$2,264,400	$171,778
Other	$1,128,876	$0	$4,960
Total Revenue	$2,657,048	$4,100,920	$756,738
Expenses			
Wages & Benefits	$2,200,016	$3,654,981	$588,361
Material, Services, and Supplies	$316,899	$580,655	$127,625
Total Expenditures	$2,516,915	$4,235,636	$715,986
Total Transports	1,590	5,897	315
Total Revenue per Transport	$1,671	$695	$2,402
Levy Revenue per Transport	$493	$311	$1,841
User Fees per Transport	$469	$384	$545
Direct Services	82%	92%	91%
Administration	18%	8%	9%

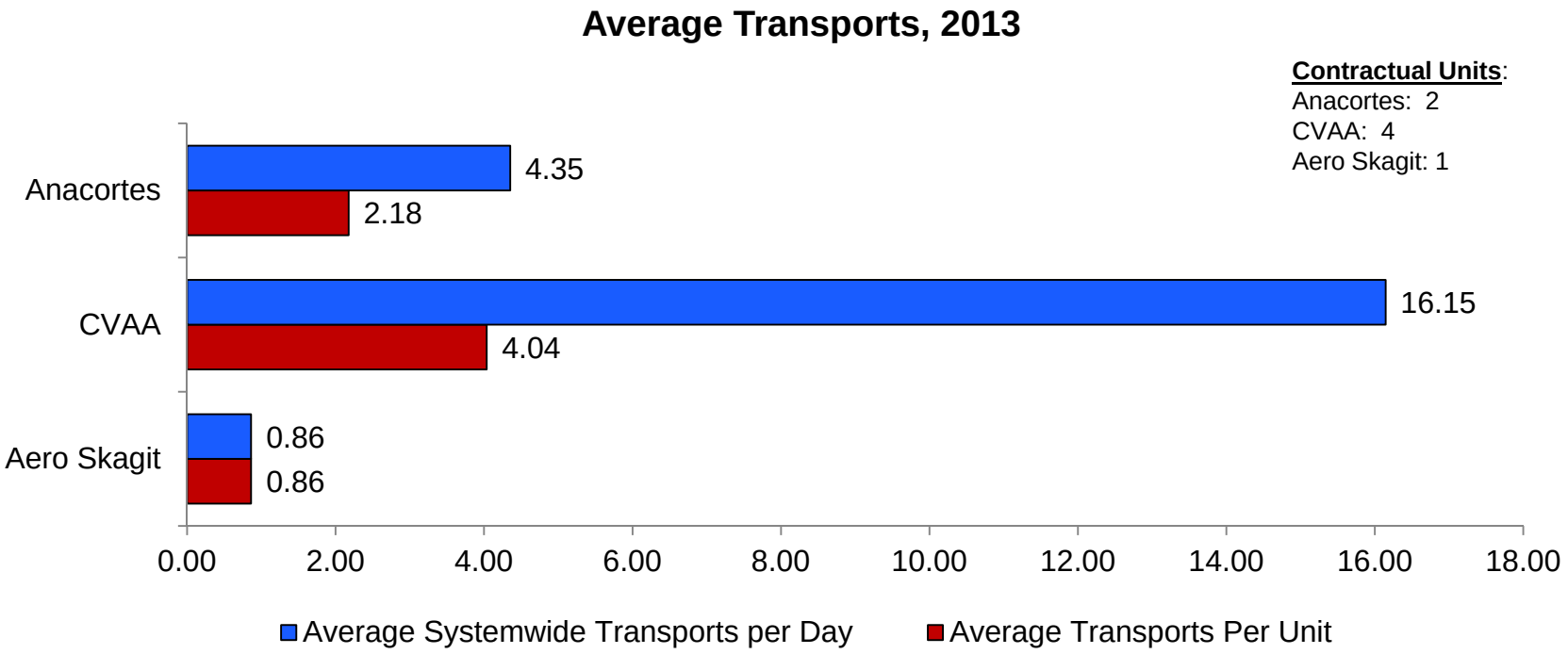
Revenue per Transport

- Fee revenues per transport are relatively consistent across providers. Levy revenue varies significantly



Average Transports per Day

- Anacortes and Aero Skagit on average have lower transports per day and transports per day per unit than CVAA. Overall, this data is reflective of a system with excess capacity, as described in the ESCI report



Financial Policies

Desired Outcomes

- Skagit County, through a newly created department, will assume responsibility for establishing a unified and integrated ambulance system on a county-wide basis
- Through restructuring of its contractual relationships with ambulance providers, the County will ensure the following objectives are achieved:
  - Provide quality care to users of the system
  - Provide affordable care to taxpayers and users of ambulance system
- These desired outcomes are achieved, in part, through the establishment of sound financial policies. PFM has developed these preliminary recommendations based on our understanding of the County's objectives and the current financial circumstance

Financial Policies

- **Allocation Needs**: County will allocate levy dollars sufficient to fund performance-based ambulance service along with EMS administration, training, capital replacement, and reserve replenishment.
- **Maximum Funding Per Contractor**: The maximum allocation to any contractor will be based on the cost of that contractor to meet performance standards within allowed costs, as set by the County. If the maximum funding for all contractors exceeds tax levy revenues, the County shall allocate the levy revenues based on the maintenance of minimum performance standards
  - See "Allocation Formula" section for additional detail on funding methodology. For example, the County could fund the cost of one ambulance staffed with one paramedic and one EMT, plus the cost of additional ambulance staffing needed to meet performance standards, plus overhead not to exceed 10% of operating expenses
- **Transport Fees:** County will set transport fees and will specify the third-party administrator (TPA) for the collection of fees for all ambulance providers
  - By having a unified fee schedule and single TPA, monitoring of the system (collection rates, documentation, data collection) will be more consistent, and transport fees for taxpayers throughout the County will not differ.

Financial Policies

- **Operating Reserves**: The County will maintain operating reserves equal to one year of EMS levy funding. Use of reserves must be requested by the ambulance service providers and be approved by the County Commissioners. Operating reserves cover unanticipated expenses without potential interruption to service. The one-year amount is a combination of the following risk factors:

1. **Expected decrease in Medicare billing rates**. A 10% reduction in fee collections would result in an equivalent dollar-for-dollar increase in the levy needs, assuming no change in service levels
2. **Increased demand for ambulance services**. A reserve will allow service increases to be phased in without undue hardship to the system as a whole. For example, increasing CVAA ambulances by a factor of one would cost just over $1 million per year, approximately 20% of the annual levy
3. **Multiple casualty events** could lead to spikes in service costs via overtime. A reserve allows for funding the cost of response for unanticipated events
4. **Risk abatement** for costs not covered in risk pools or unexpected need to replace vehicles. A vehicle cost of $200,000 is 4% of the levy
5. **Risk of Non-Renewal of the Levy.** The levy must be renewed by the voters every six years to remain in place. If not renewed, the County would need to re-think how to provide ambulance service. The operating reserve would provide an ability to taper in changes over the course of a year or two

Financial Policies

- **Capital Reserves**: The County shall set aside funding each year sufficient to fund replacement of ambulances and defibrillators as needed, based on the County's replacement formula
  - Currently there are seven ambulances at an estimated cost of $200,000 each. The County also purchases defibrillators for County fire departments. These were recently replaced at a total cost of just under $700,000. Based on a 5-year replacement schedule for ambulances and 10-years for defibrillators, the County needs to set aside approximately $350,000 per year toward capital replacement needs
  - In anticipation of required system upgrades to provide better performance data, the County should set aside additional reserves
- **Vehicle Replacement**: The County will replace ambulances on a schedule based on a combination of factors that include:
  - Anticipated useful life
  - Mileage
  - Engine Hours
  - Maintenance costs
  - Condition

Contractor's will submit an annual report on each vehicle documenting the factors above. Actual replacement timing will be determined by the County based on the annual reports and discussion with each ambulance contractor. Once replaced, title to ambulances will be signed over to the County for disposition.

Financial Policies

- **Performance Reporting**: Contractors will provide quarterly performance information required for the County to calculate performance measures for the ambulance system's operations as outlined in each provider's contract.
- **Expenditure Reporting**: Financial data will be submitted to the County consistent with the format required under BARS on an annual basis within 120 days of the end of the fiscal year

Allocation Formulas

Allocation Findings

- There is no common formula for allocating EMS levy dollars in the State of Washington.
- Skagit County requires a formula that is inclusive of all EMS provider types (fire-based, single-focused, or others)
- Levy allocations should be based on the ability of the provider to meet minimum performance standards. This assures that funding is allocated based on need and the ability of a provider to efficiently and effectively provide services
- Goal is to create a standardized, transparent, data-driven model that's right for Skagit County

Other WA Counties

PFM did not identify common practices in WA. Performance contracts for EMS systems are just starting to come into play.

- Yakima County: Distribution based on assessed value, population and EMS runs (per district percentages)
- Whatcom County: No EMS levy. City of Bellingham operates four (4) ALS units for all of County through June 30, 2014, at which point one (1) unit will be phased out. Ferndale Fire District will operate one unit. County and City recently negotiated new level of service contracts due to escalating costs
- Clark County: Distribution based on population, volume of calls, and ALS/BLS needs
- Snohomish County: Every municipality collects its own levy and uses the funds differently
- Jefferson County: Each fire district raises its own tax levy and uses the funds differently
- Kitsap County: The centralized Council is funded by all of the EMS provider agencies and the levies are collected by the agencies separately

Overview of Status Quo

- Current allocation of EMS Levy revenue is based upon static viewpoints of operations and annual "asks"
- **Issue**: Growth in the "ask" exceeds growth in EMS levy funds. While generally predictable for providers, it is not based on performance metrics or incentives
- Allocation model approach needs to be a dynamic review of operations and system-wide performance based on commonly used practices in the field of EMS delivery
- Things we most valued in the following allocation model(s):
  - Patient needs
  - Financial efficiencies
  - Operational effectiveness

"Transport provider financial support through the levy is predicated on historical design, automatic annual increases in financial support, and individual agency requests for additional funding…

There are no financial incentives within the current contracts to reward providers in lower service delivery cost."

- Emergency Services Consulting International, EMS System Evaluation and Management Plan, March 2013

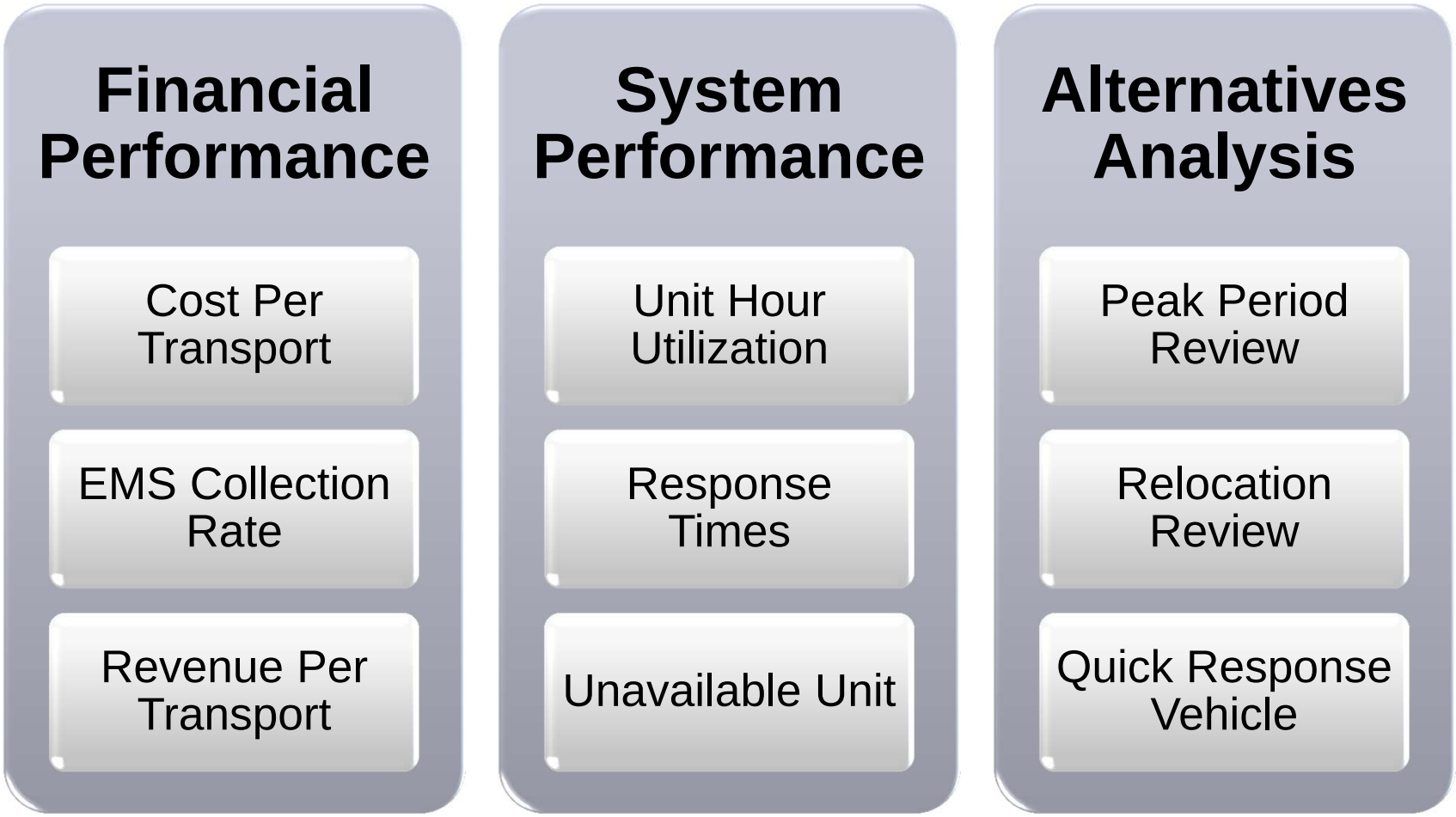
Proof of Performance Model

- Allocate the necessary revenue (levy + collections) required to run and manage the EMS service including: Administration, Training, Capital and Reserves line items.
- Provision of 1 ALS unit with 1 paramedic and 1 EMT including labor (wages, benefits, taxes), supplies, fuel, and a 10% overhead cost for each contractor (*term of existing contract*)
- For the provision of each additional resource, the EMS Vendor must provide a performance analysis inclusive of the following which will be evaluated by the County:
  - Financial Performance
  - System Performance
  - Alternatives Analysis
- Excess revenue could be utilized to support BLS services countywide

"Providers who spend more than they are contracted to provide are incented to do so when levy revenues reward that overspending."

- Emergency Services Consulting International, EMS System Evaluation and Management Plan, March 2013

Performance Analysis



Financial Performance

Cost Per Transport

- The measurement of Cost Per Transport compares operating costs of each ambulance among the other providers to ensure one is not accelerating it's costs at a faster rate than the others.
- Cost Per Transport is measured as:

$$\textbf{Cost Per Transport} = \frac{\textbf{Total Operating Costs}}{\textbf{Number of Transports}}$$

Financial Performance

EMS Collections

- EMS collections bring in additional revenue for the system to manage the service model and therefore needs to be monitored closely to ensure no money is “left on the table”
- The County needs to increase EMS billing receivables to a target rate
- EMS collection target rates should be established for each service area as target rates in collections are generally based upon the payor mix
  - Commercial payors tend to pay the rate billed therefore increasing collection rates
  - Medicaid/Medicare have capped reimbursement rates which lower the collectible amount
  - Self-pay: municipalities are reluctant to aggressively bill the individual which lowers the collection rates
- Each District should provide a breakdown of collection rates by payor to establish the target rate

Financial Performance
EMS Collection Rate

- How to measure EMS collection rates:

$$\textit{EMS Collection \%} = \frac{\textit{Total Collections – Refunds}}{\textit{Total Gross Charges – Contractual Adjustments}}$$

- Note that "un-billables" should not be deducted in the denominator
  - It inflates the EMS collection rate by eliminating what the total charge of the service is from the equation
  - Ex. Total Gross Charges equal $10,000; Total Collections equal $5,000; Refunds equal $100 (money you mistakenly billed); Contractual Adjustments = $400 (usually an agreement with commercial payors); and Unbillables = $2,000 (amount you can't collect due to caps)

✗ $65\% = \frac{\$5{,}000 - \$100}{(\$10{,}000 - \$400 - \$2{,}000)}$

✓ $51\% = \frac{\$5{,}000 - \$100}{(\$10{,}000 - \$400 - \$0)}$

- The County should eliminate any contractual adjustments in place

Financial Performance

Revenue Per Transport

- The measurement of Revenue Per Transport accounts for efficiencies in the EMS billing process and takes into account the tax levy raised from the taxpayers in each service area and transport volume.
- Transport volume and revenue collections are drivers of this measure and should be monitored over time to ensure revenue collection is growing with the volume growth rate.
- Revenue Per Transport is measured as:

$$\textbf{Contract Income per Transport} = \frac{\textbf{Tax Levy Allocation}}{\textbf{Number of Transports}}$$

$$\textbf{Fee Collections per Transport} = \frac{\textbf{EMS Collections}}{\textbf{Number of Transports}}$$

System Performance
Unit Hour Utilization (UHU)

- UHU is a calculation that estimates the amount of time a unit is occupied on emergency calls as a percentage of the total amount of hours a unit is staffed and available for response (a unit staffed full-time is available 8,760 hours per year*)
- UHU measures the percentage of on-duty time consumed by emergency service field activities.
- A high UHU means lower availability for calls which can impact response times negatively
- The specific formula used to calculate the UHU for each unit is:

$$UHU = \frac{\text{Total Calls} \times \text{Average Call Duration (in hours)}}{\text{8,760 hours per year}}$$

**8,760 = 24 hours x 365 days a year*

System Performance
Unit Hour Utilization (UHU)

- UHU does not account for time used for training, maintenance, public education and other preparations related to service provision such as readying an ambulance to go in-service
- UHU does not reveal whether a unit is working or busy when otherwise engaged
- UHU does have comparison issues as response time standards, length of transports, turnaround times, and other issues, but is a useful indicator and comparison tool nonetheless
- Optimal UHU rates vary, the County should develop a UHU scale that is reflective of the operating conditions of each service area

System Performance
Response Time

- Response times monitor the time it takes to engage the patient – an imperative measure for patient outcomes
  - The “clock” should start when the call comes in to the call center until the ambulance is put back into service and every time stamp along the way should be reviewed
  - The provider response time portion includes the dispatch time to the first on-scene time of a EMS provider
- Response times should be measured by fractiles to reduce impact of outliers in the system - answers the question:
  - ***What are the response times “most of the time?”***
- A fractile response time of “x” at the 90th percentile means that units respond in “x” minutes, or less, 90% of the time. The remainder is the operational tolerance for the system to exceed the response time goal (i.e. 10% of the time, response times will exceed the target)

System Performance
Response Time

- NFPA* 1710 utilizes fractile times to place a heavier weight of importance on the response times for the majority of patients.
- There are variations in what the response goals/targets should be from area to area around the country (urban, suburban, rural mix).
- Although NFPA has response time standards and sets them at the 90% fractile, Skagit County will need to develop a goal for the providers based on factors such as geographical area to cover, types of calls providers are responding to (ALS vs. BLS) and the cost to achieve those response times.
- Note: Fractile measures do not account for the outliers in the response times.

** NFPA = National Fire Protection Association*

System Performance
Unavailable Unit

- Tracking unavailable units can assist in monitoring how often there are no transport units available to respond and therefore are an indicator in the system's protection within the response district
- This is calculated by the number of times per week, month, year a high priority call came in and there was not an available unit to respond*

** This does not include intentionally deferred calls through an EMS dispatch/call taking prioritization process which establishes a criteria for those who can wait.*

Alternative Analysis

Peak Period Review

- Providers should evaluate the peaks and dips in the service need (number of calls and types of calls) during various times of the week and seasons to determine whether or not seasonal or part-time units would be more economical than full-time, full-year units
- This analysis should include graphic depictions of calls by time of day and/or year versus the UHU report to show whether or not there are inefficiencies within the system (i.e. if UHU is low during a peak period then there should be capacity to respond)

Alternative Analysis
Relocation Review

- Evaluating the location of a unit can minimize the unnecessary initiation of additional units by reviewing whether or not a relocated unit can reduce response times
- This analysis should be completed prior to requesting an additional unit and supplied to the County in the application for further resources
- It should include a geographic evaluation and depiction of the call volume and call types

Alternative Analysis
Quick Response Vehicle (QRV)

- There are different types of QRV's (a.k.a. "sprint car") – some are used for only EMS while other, more sophisticated vehicles, can supply water at a fire incident
- QRV's are especially useful in a fire-based EMS system where they can send a less expensive vehicle with the dually trained fire suppression personnel rather than sending the more expensive fire engine to a medical scene
  - This also lowers the financial risks associated with potential vehicle accidents, which are significantly more costly in fire apparatus
- However, there is a fine line with QRV's as a consideration in medical service provision – they ***cannot*** transport patients in currently used models. Operationally, this means the response time clock stops and patients receive care, but if they need to wait for an ambulance to transport it might not be the best response for the patient's needs
- QRV's should be reviewed as part of the analysis but in the context of call prioritization. Sending "a resource" to a patient that is not a high-risk patient to provide an initial review of their needs

Implementation Guidance

Implementation Guidance

- The data validity issue is not *a* sufficient reason to delay use of this allocation model
- However, the County *MUST* get a handle on the data validity issues imbedded throughout the system in order to sustain a performance driven model
- Operations everywhere are using the best data they have to inform their decisions, never having enough information to completely satisfy the decision-maker. "Progress not perfection" should be the theme for moving forward

"In fact, responders report that they are so distrustful of the dispatch data quality, that they ignore it and instead use their own data."

- Emergency Services Consulting International, EMS System Evaluation and Management Plan, March 2013

Implementation Guidance

- The County can initiate a two-pronged approach to establish and implement the Proof of Performance Model.

Immediate Objectives

Longer-Term Objectives

Implementation Guidance
Immediate: Performance Agreement

- The County should establish performance contracts with input from each of the providers
- Develop standard reporting structure and finalize performance indicators (see example on slide 51)
  - This includes using currently available data – although not perfect and manually intensive, it's the best information available and better than using expensive trial and testing (ex: opening another unit to see if response times go down)
- Identify data validity issues and the timelines and processes required for resolving those issues

Implementation Guidance
Immediate: Performance Tracking

- Although performance monitoring and scorecards have been developed for Patient Care in EMS, there are no current best practices in EMS system-wide performance tracking or deployment analysis that were found
- Skagit County must design something that works best for addressing the current issues with the available resources
- To start – the tracking should be basic and easy to follow
- As the system matures, consideration for performance scorecard software should be a goal

Implementation Guidance
Immediate: Performance Tracking

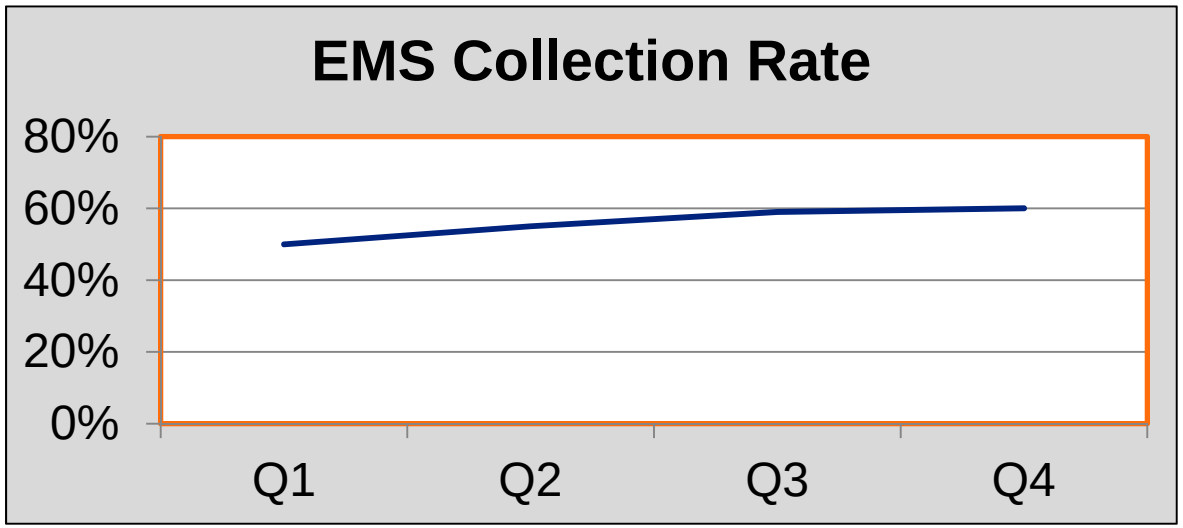
PERFORMANCE TRACKING EXAMPLE

	Q1	% Change	Q2	% Change	Q3	% Change	Q4	% Change
Financial Review								
Cost Per Transport								
Total Operating Expenditures								
Total Transports								
EMS Collection Rate								
Total Collections								
Total Refunds								
Total Gross Charges								
Contractual Adjustments								
Revenue Per Transport								
Total Revenue - Levy								
Total Revenue - Collections								
Total Transports								
System Performance								
Unit Hour Utilization								
Systemwide Total Calls								
Systemwide Average Call Duration								
UHU Unit 1								
UHU Unit 2								
UHU Unit 3								
UHU Unit 4								
Response Times								
90% Unit 1								
90% Unit 2								
90% Unit 3								
90% Unit 4								
Unavailable Units (Number of Occurances)								

- Using the traffic signal model to denote issues is an easy to use mechanism for tracking performance
- The scale should remain the same for all providers
- Areas colored red require a closer review and indicate problems in general

Implementation Guidance
Immediate: Performance Tracking

- County analysts should review trends over time from the various providers to track positive and negative growth in the various areas
- As the system progresses and the data can be gathered in more real-time, additional analysis options will be available
- Example: EMS Collection rate for one provider



Implementation Guidance
Immediate: Funding Distribution

- A performance tracking system can start simple (model 1) and grow to an automated dashboard model (model 2)
- By establishing a scoring mechanism for each indicator where growth/decline directly relates to a “color” you can easily see where there are areas of concern and reassuring trends. Targets need to be established
- Example: Growth of 5% or more in EMS collections indicates a “green” categorization; growth in the Unavailable Units numbers above 5% indicates a “red” categorization
- At the end of the scoring sheet, if there are more areas of concern (yellow or red) then this may indicate a provider that needs additional funding or a closer review of the drivers in problem areas

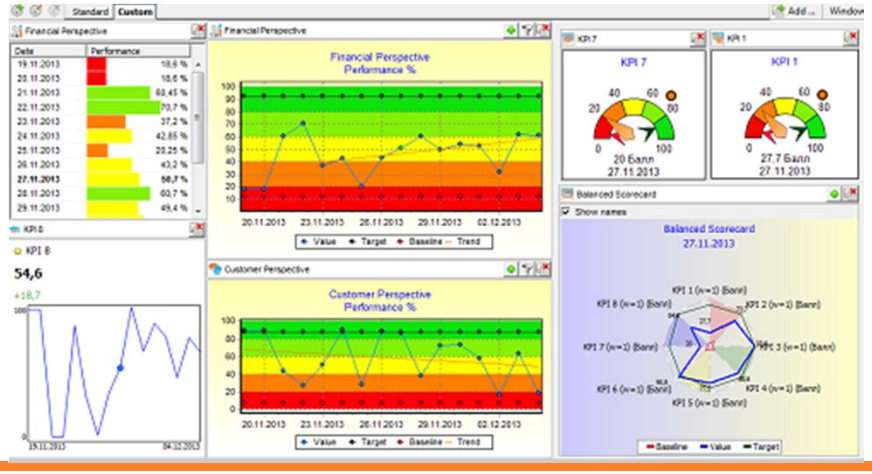
Model 1

Figure 5—Example of a Tactical-level Scorecard

No	Tactical-level Performance Against KGIs Control/KGI	Target	Actual	Status	Remarks
1	Percentage of assets covered by systematic risk assessments	>99	98		
2	Number of personnel vacancies in the security roles required for ISMS	Nil	1		
3	Time taken to grant, change and remove access privileges	Max. 2 hours	1.5 hours		
4	Percentage of agents covered by an effective security awareness program	100%	99%		
5	Number of security access violations	<2	1		
6	Number of emergency changes	<5	4		
7	Number of security incidents involving malicious code	Max. 2	0		
8	Number of systems where security requirements are not met	Max. 2	5		
9	Average turnaround time of incidents	Max. 2 hours	2 hours 25 minutes		
10	Number of pending actions to meet response and recovery requirements	Max. 5	10		
11	Number of scheduled internal audits not done	Max. 1	0		
12	Number of scheduled penetration tests not done	Max. 1	2		
13	Number of overdue actions arising out of audit reports	Max. 5	10		
14	Number of changes not carried out as per change control procudure	Max. 1	3		

Note: Target and actual amounts are hypothetical figures for the purpose of this example. Categorization into green, amber and red is done on a predefined basis.

Model 2



Implementation Guidance
Immediate: Funding Distribution

- It is *NOT* suggested that there is a perfect science to determining the number of ambulances, however using data to make more informed decisions is a better way forward
- The County will need to make judgment calls based on the series of performance indicators provided
- There will always be more data to get, but the County must review what it has and make the final decision

Implementation Guidance
Longer-Term Objectives

Provider Review & Analysis	System Improvement Plan	Shared Sacrifice Planning
Review current data capturing processes and data validity concerns with each provider. Determine data gaps, errors and process problems.	The various data systems should be evaluated by technical experts and providers for determining the cost and repair plan (ex: CAD system upgrades for regular reporting).	The changes suggested here are largely different from past practices – some will be challenging adjustments, but all changes will require everyone involved to share in the planning and process for moving forward.

Implementation Guidance
Longer-Term Objectives: Provider Review and Analysis

- Based on the ESCI noted difficulties in collecting data for the performance analysis, the 9-1-1 system should consider technology upgrades
- This 9-1-1 system review may require a technical analysis of current and future system requirements:
  - Hardware and software integration and functionality
  - Personnel user experience and needs to reduce human error
  - Real-time data collection needs vs. back-end inputting needs
  - Resources and practices for support and maintenance of the systems (i.e. software updates, hardware upgrades and schedules)
- This review should give a clear picture of the true data capturing issues from a system design and user perspective

Implementation Guidance
Longer-Term Objectives: System Improvement Plan

- Time to build an improvement plan will be based on available personnel to focus on the issue, the RFP/RFQ processes of the providers and/or County, and available funds
- In order to correct the technological and data collection process issues, each provider will need to determine the costs associated with the upgrades and/or updates
- This will likely include upgrades in the Computer Aided Dispatch (CAD) system, back-end software systems and CAD integrations, software feeds such as the ePCR data capturing programs
- The County may also want to consider a consolidated reporting system that integrates the data from the providers into a single reporting system so as not to depend on the providers to receive data

Implementation Guidance
Longer-Term Objectives: System Improvement Plan

- System overhauls can have big sticker prices…don't be surprised
- An implementation plan developed in the proposals should lay out incremental steps to improving the system
- Improving technology systems are a never-ending endeavor and the sky's the limit for IT providers, so focus proposal requirements on immediate needs and separate out potential future needs to allow flexibility in your spending options

Implementation Guidance
Longer-Term Objectives: Shared Sacrifice

- The County and public have vested interests in the progressive improvement of the data collection process
- It makes sense that some EMS levy money be set aside in the capital planning process to share the costs associated with the improvements
- This investment allows for a transparent, accountable, data-driven model that is defendable and therefore a sound investment for the County and taxpayers
- It will help answer the age-old question of *"What do we get for our taxes?"*