

Green Belt Six Sigma Project Report Out
Mark Ingles
Auditor of State-Ohio Performance Team
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SIX SIGMA APPROACH TO SICK LEAVE ANALYSIS IN PERFORMANCE AUDITS

TEAM MEMBERS: TRAIL CHART

Auditor of State- OPT

- Mark Ingles- Leader
- Tom Carey-
Mentor/Resource
- Joe Rust- Resource
- Marti Lowe-
Resource/Approval

Anonymous Local School District

Treasurer- Informer/Informed
Superintendent- Informed

The above are process
owners.

STAKEHOLDERS

- Treasurer (Process Owner)
- Superintendent (Process Owner)
- Supervisors
- Staff members

BACKGROUND

- Employees using more than the DAS state average
- Higher sick leave use leads to higher personnel costs (substitutes), lost productivity, and higher administrative costs (additional payroll)

SCOPE OF THE PROJECT

- × Beginning step: Employee calls off
- × Ending step: Data is reported year end
- × Includes: Day to day unscheduled call offs
- × Excludes: Approved, long term medical leave

OPERATIONAL DEFINITIONS

- Sick day= A day taken off recorded in the District's HR system as being taken from an employee's sick leave bank that is not documented, planned long term leave.

PROJECT GOALS

- ✘ Find patterns amongst employee group in sick leave use.
- ✘ Analyze District leave policies for sufficiency and compare to best practices.

Process

Supplies

Staff
Admin
Subs

Inputs

Documentation
Sub lesson
plans

Staff member
calls off

Admin decides
to call in sub

Admin fills out paperwork
Sub, Staff, Admin signs
paperwork

Submitted to payroll
weekly

Outputs

Sub pay
Additional
payroll
paperwork

Customers

Staff
Admin
Subs

DATA COLLECTION PLAN

- Request sick leave data from the District for fiscal years 2010-2012.
- Average the data.
- Group the data by EMIS position codes (to preserve personal privacy).
- Filter out instances where employee was on a documented, long term leave.
- Note instances where leave was taken immediately before or after a weekend or a holiday.

BASELINE DATA!

Table 1C: AVERAGE WEEKDAY ABSENCES BY DAYS ALL STAFF 2010-2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Sick Days	82.33	92.42	85.69	82.00	98.71	442.90
Hours	658.67	739.33	685.51	656.00	789.67	3543.17
Employee Count	60.33	60.33	60.33	60.33	60.33	60.33
Days per Employee	1.36	1.53	1.42	1.36	1.64	7.34
Hours per Employee	10.92	12.25	11.36	10.87	13.09	58.73

CERTIFICATED STAFF DATA!

Days Missed by Certificated EMIS Code

EMIS	Employee Count	Total Days	Holidays	% Holidays	Weekend	% Weekend
108	2	1.8	0.0	0.0%	1.0	57.1%
109	1.33	5.8	0.0	0.0%	3.0	51.4%
112	1	4.8	0.0	0.0%	4.7	98.2%
113	1	2.7	0.3	12.5%	1.0	37.5%
202	1	6.7	0.3	5.0%	2.0	30.0%
204	2	13.0	0.3	2.6%	6.0	46.2%
208	2.33	21.0	2.0	9.5%	8.0	38.1%
212	2.33	20.7	0.7	3.2%	7.0	33.9%
214	1	4.5	0.0	0.0%	1.3	29.6%
230	57.67	431.2	29.3	6.8%	192.0	44.5%
320	1	9.3	1.3	14.3%	4.7	50.0%
326	1.33	11.0	1.0	9.1%	6.3	57.6%
318	1	13.0	1.0	7.7%	7.0	53.8%
DATA CHECK	73.33	534.58	35.67	6.7%	239.00	44.7%

CLASSIFIED STAFF DATA!

Days Missed by Classified EMIS Code

EMIS	Employee Count	Total Days	Holidays	% Holiday	Weekend	% Weekend
299	3.5	7.50	0.00	0.0%	4.00	53.3%
399	1	7.50	1.00	13.3%	2.50	33.3%
415	1	6.71	0.67	9.9%	3.00	44.7%
501	1	10.58	0.67	6.3%	6.67	63.0%
502	5.33	56.08	5.00	8.9%	29.33	52.3%
504	1	5.50	0.33	6.1%	0.67	12.1%
505	6	49.00	4.00	8.2%	21.67	44.2%
603	2	6.00	0.00	0.0%	4.00	66.7%
702	2	3.50	0.00	0.0%	2.00	57.1%
704	10.67	85.17	6.33	7.4%	42.33	49.7%
902	7.33	41.67	1.67	4.0%	15.67	37.6%
904	9	76.67	4.67	6.1%	31.00	40.4%
906	1.67	6.83	1.00	14.6%	3.33	48.8%
DATA CHECK	47.33	351.38	24.67	7.0%	157.33	44.8%

PROJECT BENEFITS- TANGIBLE

- ✘ Save on personnel costs by using less substitutes throughout the year

PROJECT BENEFITS - INTANGIBLE

- Increase administrative efficiency (not have to find substitutes)
- Better learning environment by having teachers there more often
- Improved maintenance, food service, and transportation efficiency

PROJECT METRICS

Measure	Result		
Sick leave per employee (hours)	Reduction to 10% of DAS three year average (goal)		
Cost Avoidance	\$3,655 (Certificated Staff)		
Measure	Before	After	Difference
<i>Sick leave per employee</i>	54.67	~49.48	5.19 hours per employee

OTHER TOOLS – TO TELL YOUR STORY

- Root Cause Analysis (Five Whys)
- Ishikawa fish diagram

- Used above as part of brain storming
- Identified issues with policies that may lead to the higher use of sick leave

IMPROVEMENT SUMMARY

Current Key Issues



Sick leave above state average



Policies are vague or missing

How We Improved



Better monitoring of use



Create or improve employee sick leave policy

COMMUNICATION PLAN

What	Who	When
Findings of analysis	Treasurer and Superintendent	March 2013
Any changes in policy	Staff via administration	TBD

IMPLEMENTATION PLAN (EXAMPLE)

Task	Who	When	Status
Revise Sick Leave Policies	Admin Staff	Spring/Summer 2013	TBD
Communicate Changes	Admin Staff	Spring/Summer 2013	TBD
Changes take effect	District	Fall 2013	TBD

CONTROL PLAN (EXAMPLE)

	What	Who	When	Where
Measure	Sick Leave Use	Admin Staff	FY 2014	District Wide
Monitor	Effectiveness Of policy	Admin Staff	FY 2014	District Wide
React	Note what is not working	Admin Staff/ Principals	FY 2014	District Wide
Revise	The policy as needed	Admin Staff	FY 2015 (Classified) Next CBA Negotiations (Certificated)	District Wide

COST SAVINGS SCORECARD

Measure	Projected Savings Annually
Reduction of sick leave to 10% of three year state average (FY10-12)	\$3,655
Total	\$3,655

OVERALL BENEFITS OF THE PROJECT

- Identified issues with the District's sick leave policy
- Developed a deeper methodology for analyzing sick leave use
- Communicated solutions for the District to save on personnel costs in the future

SPECIAL THANKS TO...

Senior Leadership

Dan Cecil

Sponsor:

Tom Carey

Joe Rust

Marti Lowe

Subject Matter Experts

Treasurer, Superintendent, Staff
at Anonymous Local Schools.

QUESTIONS/COMMENTS

