

**ENERGY/FACILITIES
CONNECTIONS**

WASHINGTON STATE UNIVERSITY
EXTENSION ENERGY PROGRAM



UTILIZING CUSTODIAL STAFFING AND PERFORMANCE STANDARDS FOR SUCCESS

“MEASURE TODAY TO SURVIVE THE
STORMS OF TOMORROW”



MAY 12, 2011



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HANDOUT: EHT, MARCH 2010, PP. 6 - 9

frugal
housekeeper

Lessons from the Storms of Life:

Measure Today to Survive Tomorrow!

by Alan S. Bigger and Linda B. Bigger

"A smooth sea never made a skillful mariner, neither do uninterrupted prosperity and success qualify for usefulness and happiness. The storms of adversity, like those of the ocean, rouse the faculties, and excite the invention, prudence, skill and fortitude of the voyager. The martyrs of ancient times, in bracing their minds to outward calamities, acquired a loftiness of purpose and a moral heroism worth a lifetime of softness and security."

*-Author Unknown,
from Cole's Quotables*



STORMS ARE GOING TO COME!

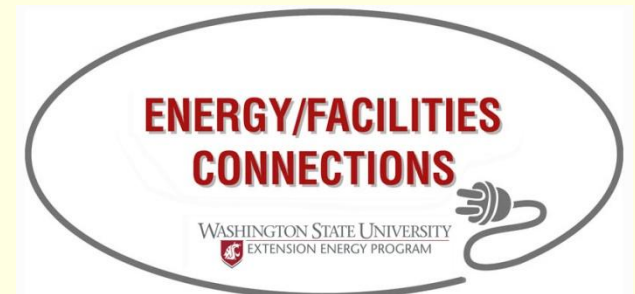


SOME STORMS WILL BE LARGE AND SOME SMALL



WE CAN SUCCUMB OR WE CAN OVERCOME!

“A smooth sea never made a skillful mariner, neither do uninterrupted prosperity and success qualify for usefulness and happiness. The storms of adversity, like those of the ocean, rouse the faculties, and excite the invention, prudence, skill and fortitude of the voyager. The martyrs of ancient times, in bracing their minds to outward calamities, acquired a loftiness of purpose and a moral heroism worth a lifetime of softness and security.” Author Unknown from **Cole's Quotables**



**IT IS HOW WE REACT TO THE
STORMS OF LIFE THAT IS CRITICAL!**



OVERVIEW OF KEY TOPICS

- STORMS OF LIFE
- THE CRITICAL GUIDE
- EFFICIENCIES VERSUS EFFECTIVENESS IN CLEANING
- QUANTITATIVE VERSUS QUALITATIVE ASSESSMENT OF CLEANING
- BLENDING BOTH TOGETHER IN DEVELOPING STAFFING MODELS
- SCIENTIFIC MEASUREMENT – WE CAN MEASURE SOIL LOADS
- ISSA'S CIMS – CLEANING INDUSTRY MANAGEMENT STANDARDS
- QUESTIONS & ANSWERS

THE IMPACT OF THE WAVES OF THE STORMS ON OUR OPERATIONS

- CUT OPERATIONAL COSTS
- CUT STAFFING
- EXPAND WORK ASSIGNMENTS
- DO MORE WITH LESS
- SAME QUALITY, LESS STAFF
- MORE BUILDING - SAME OR LESS STAFF
- DEMANDS TO BE MORE EFFICIENT
- SPEND LESS ON SUPPLIES AND EQUIPMENT
- OUTSOURCED
- OUT OF BUSINESS

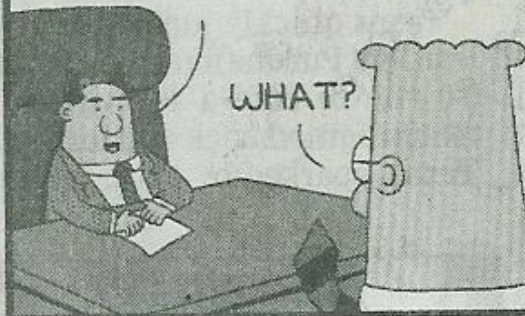
SOME EXAMPLES OF IMPACT OF THE WAVES OF THE STORM

- WHOLE DEPARTMENT ELIMINATED 180+ FTE
- A CUT OF 50 FTE, 10% CUT
- NO LONGER CLEAN OFFICES
- BUDGET CUTS FOR LAST 13 YEARS
- OVER 200,00- GSF OF BUILDINGS ADDED, NO FTE
- LESS AVAILABLE WORK HOURS FOR MORE WORK
- CUSTODIANS CLEANING 40-50,000 GSF
- CLEANING MORE ROOMS, MAKING MORE BEDS
- OUTSOURCED

BUDGETS ARE GETTING TIGHT EVEN FOR DILBERT

DILBERT

THERE'S NO BUDGET FOR YOUR PROJECT; YOU NEED TO TIN-CUP IT.



www.dilbert.com scottadams@aol.com

BE LIKE A BEGGAR AND ASK EACH DEPARTMENT TO GIVE YOU A BIT OF THEIR BUDGET.

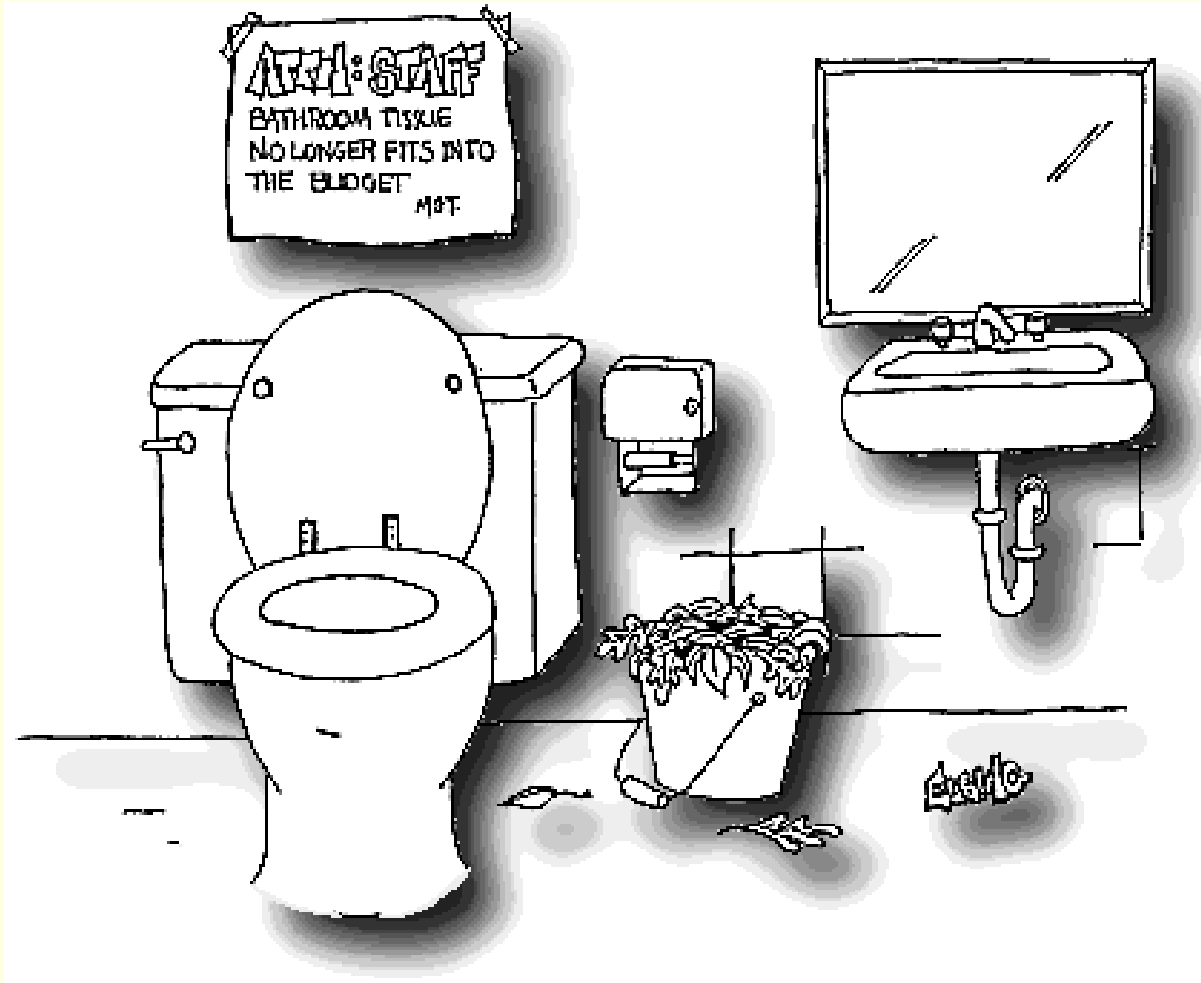


3/21/03 © 2003 United Feature Syndicate, Inc.

WELL, NOW THAT YOU'VE LAUGHED YOUR GUTS OUT, DO YOU FEEL BETTER?



DEMANDING THAT WE SOLVE THE BUDGET PROBLEM BY GETTING TO THE BOTTOM OF THE SUBJECT



USING EVERY CREATIVE METHOD POSSIBLE TO MULTI-TASK AND TO STRETCH OUR BUDGETS

Aquarium toilet tank

This is a working aquarium that also functions as a toilet tank. While you're "doing your business," you can enjoy actual, living fish darting around in a playful manner, until of course you flush, at which point they are sucked, screaming tiny underwater Nemo screams, down the Hole of Death.

No, seriously, the fish are not flushed down, as far as we can tell. They continue to swim around in there, in plain view, watching you as you use the commode. Even when your back is turned you can feel their eyes on you ... watching ... watching. Try not to think about it.

\$1,200 from Elseware, 97 Wyckoff Ave., No. 4, Brooklyn, NY 11237; (917) 805-2588; elseware.to.

Inside

More items from Dave Barry's Gift Guide.

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BUDGET CUTS CAUSE DOWN-SIZING! IT IS A DOG EAT DOG WORLD!



WE NEED TO HAVE A CLEAR FOCUS – A LIGHTHOUSE TO GUIDE US IN THE STORMS OF LIFE



TO GUIDE US AND TO HELP US TO MEET OUR GOALS



THE CRITICAL GUIDE

“One of the best business practices and methods to demonstrate the effectiveness of our operation is to measure what it is that we do on an on-going basis and to utilize the best management practices available in our industry to achieve operational effectiveness and to tell our stories to our administrators.”



METHODS TO MEASURE OUR ORGANIZATION

- **ECONOMIC EFFICIENCIES MODEL**
APPROACH – HOW ECONOMICAL IS OUR OPERATION
- **OPERATIONAL EFFECTIVENESS MODEL**
APPROACH – HOW EFFECTIVE IS OUR OPERATION
- **A QUALITATIVE APPROACH** – WHAT YOU SEE IS WHAT YOU GET
- **A QUANTITATIVE APPROACH** – WHAT YOU MEASURE IS WHAT YOU ACHIEVE

A COMPARISON OF MODELS AND OUTCOMES

ECONOMIC EFFICIENCY MODEL MEASURES	OPERATIONAL EFFECTIVENESS MODEL MEASURES
Labor cost per square foot	How clean a facility looks
Supplies cost per square foot	How much soil is removed
Equipment cost per square foot	Customer satisfaction with level of service
How many sq. ft. cleaned per employee	Customers satisfaction with quality of service through customer surveys
Cost of benefits	How effectively cleaning limits or controls nosocomial infections
Operational overheads	Retention of customers
How much down time or lost time	Growth of company through new customers
	What levels of soil remain in place after cleaning?
OUTPUT: ECONOMIC COSTS PER UNIT – AN ECONOMIC MEASURE	OUTPUT: PRODUCT SATISFACTION AN EFFECTIVENESS MEASURE

THE IMPACT ON THE ECONOMIC EFFICIENCIES MODEL ON CLEANING OPERATIONS

- ASSUMPTION: CUTS HAVE BEEN MADE
- FACILITY NOT AS CLEAN
- CUSTOMERS START TO NOTICE
- DIRT BEING WALKED THROUGH BUILDING OR BLOWN THROUGH BLDG
- HVAC ISSUES
- IAQ ISSUE – SICK BLDG SYNDROME
- ABSENTEEISM
- CUSTOMERS GO ELSEWHERE
- A VISCOUS CYCLE

QUALITATIVE MEASURES AND QUANTITATIVE MEASURES FOR EFFECTIVENESS

- **QUALITATIVE MEASURES** BASED UPON DESCRIPTORS – MUCH IS IN THE EYES OF THE BEHOLDER – DIFFERENT RESULTS WITH DIFFERENT EYES
- **QUANTITATIVE MEASURES** – UTILIZES MEASURING DEVICES - REPEATABLE RESULTS, EVEN WITH DIFFERENT EYES

ISSA 540 CLEANING TIMES



ISSA[®]

QUANTITATIVE METHOD – ISSA (for task, equipment and productivity)

FLOOR	Sq. Ft.	Minutes	Sq. Ft. Hr.
Damp Mop with 12 oz. Mop Head using Single Bucket & Wringer	1,000	16.80	3,571
Damp Mop with 12 oz. Mop Head using Double Bucket & Wringer	1,000	15.60	3,846
Damp Mop with 16 oz. Mop Head using Single Bucket & Wringer	1,000	14.40	4,167
Damp Mop with 16 oz. Mop Head using Double Bucket & Wringer	1,000	13.20	4,545
Damp Mop with 24 oz. Mop Head using Single Bucket & Wringer	1,000	12.00	5,000
Damp Mop with 24 oz. Mop Head using Double Bucket & Wringer	1,000	10.80	5,556
Damp Mop with 32 oz. Mop Head using Single Bucket & Wringer	1,000	9.60	6,250
Damp Mop with 32 oz. Mop Head using Double Bucket & Wringer	1,000	8.40	7,143
Damp Mop using 10 gallon rolling bucket, ergonomic handle flat microfiber mop	1,000	6.5	9,231
Dry Buff/Polish with 175 rpm 12" Rotary Floor Machine Electric	1,000	40.20	1,493
Dry Buff/Polish with 175 rpm 14" Rotary Floor Machine Electric	1,000	34.80	1,724
Dry Buff/Polish with 175 rpm 17" Rotary Floor Machine Electric	1,000	30.00	2,000
Dry Buff/Polish with 175 rpm 20" Rotary Floor Machine Electric	1,000	25.20	2,381

BENCHMARKING PRODUCTIVITY QUANTITATIVE

Median amount of square feet and acreage
maintained at colleges

Sq. ft. of bldg. maintained per student	238
Sq. ft. maintained per custodial employee	39,647
Sq. ft. maintained per maintenance employee	79,293
Acres maintained per grounds employee	39
Total reported M&O Budget	\$3.55 million

Source: *American School & University*, April 2009

<http://asumag.com/exclusive/university-square-footage-maintain-200904/>

QUALITATIVE MEASURES – QUALITATIVE METHOD LINKED TO QUANTITATIVE METHOD

APPA 5 LEVELS - QUANTITATIVE

- **Level 1—Orderly Spotlessness**
- Floors and base moldings shine, and are bright and clean; colors are fresh. There is no buildup in corners or along walls.
- All vertical and horizontal surfaces have a freshly cleaned or polished appearance and have no accumulation of dust, dirt, marks, streaks, smudges, or fingerprints. All lights work and fixtures are clean.
- Washroom, shower fixtures, and tile gleam and are odor-free. Supplies are adequate.
- Trash containers and pencil sharpeners hold only daily waste, are clean, and odor-free.
- **Level 2—Ordinary Tidiness**
- Floors and base moldings shine, and are bright and clean. There is no buildup in corners or along walls, but there can be up to two days worth of dust, dirt, stains, or streaks.
- All vertical and horizontal surfaces are clean, but marks, dust, smudges, and fingerprints are noticeable upon close observation. All lights work and fixtures are clean.
- Washroom, shower fixtures, and tile gleam and are odor-free. Supplies are adequate.
- Trash containers and pencil sharpeners hold only daily waste, are clean and odor-free.
- **Level 3—Casual Inattention**
- Floors are swept or vacuumed clean, but upon close observation there can be stains. A buildup of dirt or floor finish in corners and along walls can be seen.
- There are dull spots or matted carpet in walking lanes. There are streaks or splashes on base molding.
- All vertical and horizontal surfaces have obvious dust, dirt, marks, smudges, and fingerprints. All lights work and fixtures are clean.
- Trash containers and pencil sharpeners hold only daily waste, are clean and odor-free.
- **Level 4—Moderate Dinginess**
- Floors are swept or vacuumed clean, but are dull, dingy, and stained. There is a noticeable buildup of dirt or floor finish in corners and along walls.
- There is a dull path or obviously matted carpet in the walking lanes. Base molding is dull and dingy with streaks or splashes.
- All vertical and horizontal surfaces have conspicuous dust, dirt, smudges, fingerprints, and marks. Lamp fixtures are dirty and some lamps (up to 5 percent) are burned out.
- Trash containers and pencil sharpeners have old trash and shavings. They are stained and marked. Trash containers smell sour.
- **Level 5—Unkempt Neglect**
- Floors and carpets are dull, dirty, dingy, scuffed, or matted. There is a conspicuous buildup of old dirt or floor finish in corners and along walls. Base molding is dirty, stained, and streaked. Gum, stains, dirt, dust balls, and trash are broadcast.
- All vertical and horizontal surfaces have major accumulations of dust, dirt, smudges, and fingerprints, all of which will be difficult to remove. Lack of attention is obvious.
- Light fixtures are dirty, with dust balls and flies. Many lamps (more than 5 percent) are burned out.
- Trash containers and pencil sharpeners overflow. They are stained and marked. Trash containers smell sour.

DON'T PANIC HANDOUT ON THE WAY!



IS THIS ROOM CLEAN? QUALITATIVE PROCESS

- APPA LEVELS OF CLEANLINESS
- LEVEL 1 – ORDERLY SPOTLESSNESS
- LEVEL 2 – ORDINARY TIDINESS
- LEVEL 3 – CASUAL INATTENTION
- LEVEL 4 – MODERATE DINGINESS
- LEVEL 5 – UNKEMPT NEGLECT
- **THE WHITE GLOVE INSPECTION
HANDOUT!**



APPA STAFFING SERVICE LEVELS LINKING QUALITATIVE WITH QUANTITATIVE APPROACHES

4 • Staffing

Figure 1 Staffing Service Levels

APPA Standard Space	Level #1	Level #2	Level #3	Level #4	Level #5
Classroom with Hard Floor	8,500	16,700	26,500	39,500	45,600
Entranceway	4,300	7,500	12,300	20,700	35,000
Locker/Changing Room - No Shower	11,800	12,100	xxxx	xxxx	xxxx
Office with Carpet Floor	9,600	18,200	32,000	53,000	87,000
Public (Circulation) with Hard Floor	7,500	20,500	30,500	38,400	41,800
Research Lab with Hazardous Waste	5,200	7,000	8,200	11,400	28,200
Research Lab without Hazardous Waste	6,900	10,600	13,500	25,000	87,200
Stairwell	7,500	15,100	17,400	24,500	75,300
Storeroom	77,000	210,000	395,300	1,832,700	3,360,000
Washroom	2,000	2,600	xxxx	xxxx	xxxx
Shower Room	5,200	5,200	xxxx	xxxx	xxxx
Public (Circulation) with Carpet Floor	17,700	40,400	53,500	80,900	93,600
Office with Hard Floor	8,400	14,600	25,100	36,000	49,500
Classroom with Carpet Floor	9,700	21,700	24,000	34,700	37,200
Classroom with Carpet Floor-High Use	5,100	12,700	13,400	17,900	18,800
Classroom with Hard Floor-High Use	4,700	9,600	10,100	21,000	22,900
Washroom-High Use	1,000	1,300	xxxx	xxxx	xxxx
Utility	4,100	5,500	9,800	17,700	45,700
Vending	4,800	11,100	16,000	17,700	19,500
Dormitory Lounge	5,200	8,700	17,800	42,900	136,500
Cafeteria with Carpet	9,900	15,400	xxxx	xxxx	xxxx
Cafeteria with Hard Floor	11,200	16,400	xxxx	xxxx	xxxx
Library with Carpet	17,900	36,900	72,600	106,400	126,800
Library with Hard Floor	10,900	20,200	23,500	47,000	57,000
Auditorium Seating & Foyer	5,700	14,000	32,600	67,200	408,000
Auditorium Stage & Wings	18,600	27,500	82,800	239,500	xxxx
Gymnasium (Wood Floor)	17,300	36,500	80,700	257,400	1,108,200
Dormitory Washroom	1,500	1,800	xxxx	xxxx	xxxx
Dormitory Sleep/Study	3,900	4,100	8,000	18,700	24,700
Patient Conference Room	8,300	8,300	xxxx	xxxx	xxxx
Patient Treatment Area — Carpeted	3,300	3,300	xxxx	xxxx	xxxx
Patient Treatment Area — Hard Floor	2,900	2,900	xxxx	xxxx	xxxx
Nursing Station — Hard Floor	5,700	5,700	xxxx	xxxx	xxxx



APPA USES SPACE DATA AND ROOM TYPES TO COMPILE STAFFING

- TABULATION OF SPACES
- BY ROOMS TYPES (33 ROOMS)
- CLEANABLE SQUARE FEET
- ABILITY TO BUILD ROOMS
- HAS 55 DEFINED CLEANING TASKS
- TASK, TIMES TO COMPLETE TASK AND FREQUENCIES ARE BUILT INTO MODEL
- GENERALLY THE GREATER THE AREA CLEANED WITH DECREASING STAFF THE GREATER THE PROBABILITY OF DECREASING LEVELS OF CLEANLINESS



CALCULATE ALL SPACE TYPES

- | | |
|---------------|-----------|
| ■ CLASSROOMS | ■ 200,000 |
| ■ RESTROOMS | ■ 5,000 |
| ■ CIRCULATION | ■ 25,000 |
| ■ OFFICES | ■ 10,000 |
| ■ ENTRYWAYS | ■ 2,000 |
| ■ STAIRWELL | ■ 3,000 |
| ■ STOREROOM | ■ 10,000 |



DIVIDE TOTAL SPACE TYPE BY LEVEL

- CLASSROOM
- APPA 1
- APPA 2
- APPA 3
- APPA 4
- APPA 5
- SPACE 200,000
- 200,000/8,500
- 200,000/16,700
- 200,000/26,500
- 200,000/39,500
- 200,000/45,600

DIVIDE TOTAL SPACE TYPE BY LEVEL = FTE EXAMPLE: CLASSROOMS

- | | |
|------------------|----------------|
| ■ SPACE 200,000 | ■ TOTAL # FTE |
| ■ 200,000/8.500 | ■ 23.53 APPA 1 |
| ■ 200,000/16,700 | ■ 11.97 APPA 2 |
| ■ 200,000/26,500 | ■ 7.55 APPA 3 |
| ■ 200,000/39,000 | ■ 5.13 APPA 4 |
| ■ 200,000/45,600 | ■ 4.39 APPA 5 |

FOR ADDITIONAL INFORMATION: WWW.APPA.ORG



**APPA BASED STAFFING ANALYSIS APPLIED TO SELECTED BUILDINGS AT NOTRE DAME
AS OF 09/20/2005**

BUILDING	ND-FTE	APPA - 1	APPA - 2	APPA-3	APPA-4	APPA-5
BAND	1	2.3	1.4	1.1	0.7	0.04
BOND	3	7	4	3.1	2.1	1.4
BROWNSON HALL	1.5	2.6	1.5	1.1	0.9	0.8
CENTER FOR SOCIAL	0.5	1.2	0.7	0.5	0.4	0.4
COLEMAN MORSE	4	6.4	3.1	2	1.3	0.9
CROWLEY	1	1.1	0.7	0.5	0.3	0.3
CUSHING HALL	4	9.2	5.3	4	2.6	1.6 R
DEBARTOLO	8	14.9	8	6.4	5.5	4.8
DECIO	2.5	6.2	3.4	2.4	1.8	1.4
ECDC	0.75	1.2	0.6	0.5	0.4	0.4
ECK VISITOR	2	2.6	1.2	0.7	0.4	0.2
FITZPATRICK	5	15.2	8	6.4	4.5	3.4 R
FLANNER	6	11.6	6.4	4.6	3.4	2.7
GALVIN	6	16.7	9.6	7.5	4.7	2.5 R
GRACE	6	11.1	6	4.5	3.4	2.7
HAGGAR HALL	2	4.8	2.9	2.2	1.4	0.9
HAYES HEALY	2	3.8	1.9	1.4	1	0.9
HESBURGH CENTER	3	7.8	5.1	3.4	2.3	1.9
HESBURGH LIBRARY	11	34	18.2	13.1	8.1	6.6
HESSERT AEROSPACE	1	2.6	1.7	1.4	1	0.6
HURLEY	2	2.7	1.4	0.9	0.7	0.6
IEI	0.5	0.9	0.5	0.4	0.2	0.2
ITC	2	5	2.7	2	1.5	1.2
LANDSCAPE	0.4	0.7	0.5	0.4	0.4	0.4
LAW	5	10.3	5.7	4.5	3.5	3
MAINTENANCE CTR	1	2.4	1.4	1.1	0.8	0.6
MALLOY	3	5.4	3	2.2	1.7	1.4
MASON SERVICES CTR	0.5	1.3	0.7	0.6	0.5	0.5
MENDOZA	9	14.7	8.4	6.6	5.5	4.8
NIEUWLAND	6	21.6	12.3	9.6	6	3.3 R
O'SHAUGHNESSY	5.33	9.9	5.1	3.4	2.3	1.6
PARIS HOUSE	0.1	0.1	0.1	0.1	0.1	0.1
PASQUERILLA CENTER	2	4.2	2.3	1.6	1.1	0.9
REYNIERS	0.7	1.5	0.8	0.6	0.4	0.3
RILEY ART	2	7.2	4.3	3.3	2.1	1.1 R
RISK MANAGEMENT	0.1	0.2	0.1	0.1	0.1	0.1
SACRED HEART	2.5	3.7	1.6	0.9	0.6	0.3
SNITE	2	6.4	2.9	1.6	1.1	0.7
STEPAN CHEMISTRY	3	8.9	5.2	4	2.5	1.2 R
WASHINGTON HALL	2	3.7	2.2	1.7	1.3	1
	119.38	273.1	150.9	112.4	78.6	57.74

RESEARCH = R

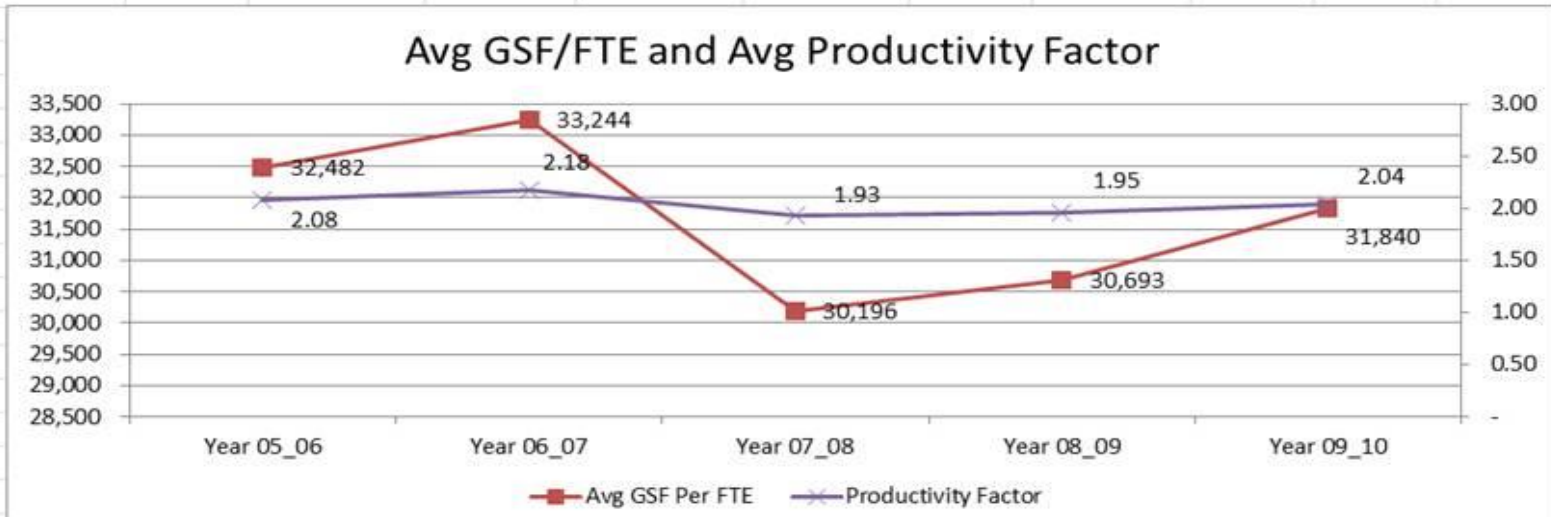
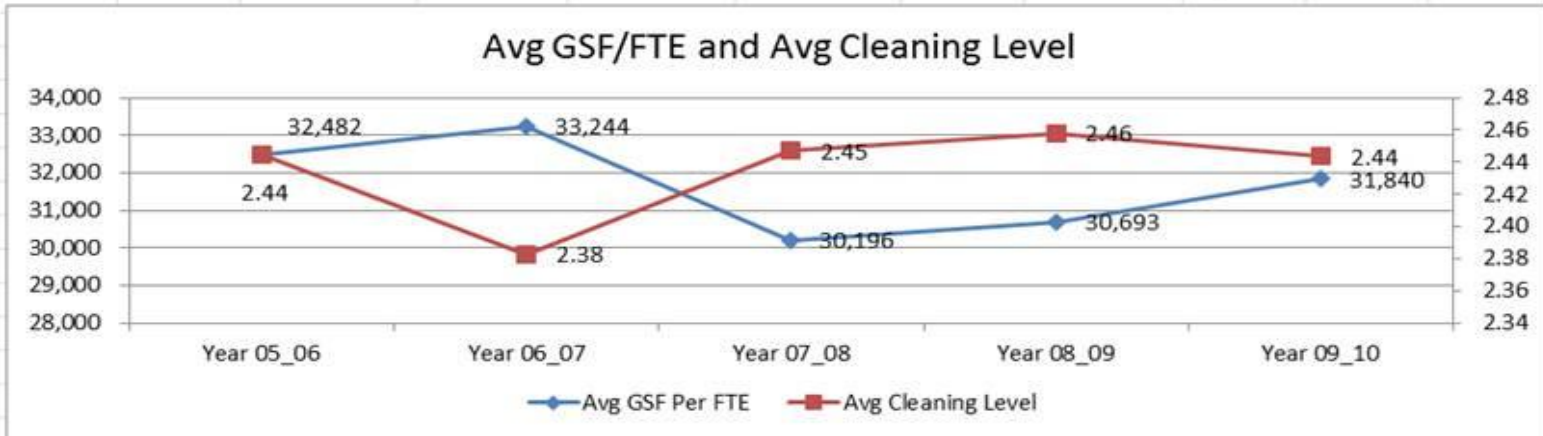
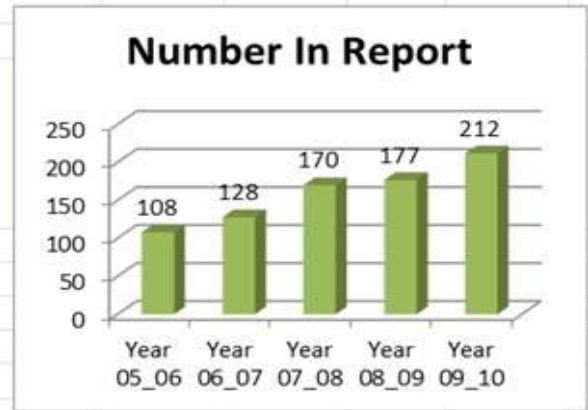
HEAVY RESEARCH BUILDINGS

APPA STAFFING APPLIED TO A REAL INSTITUTION

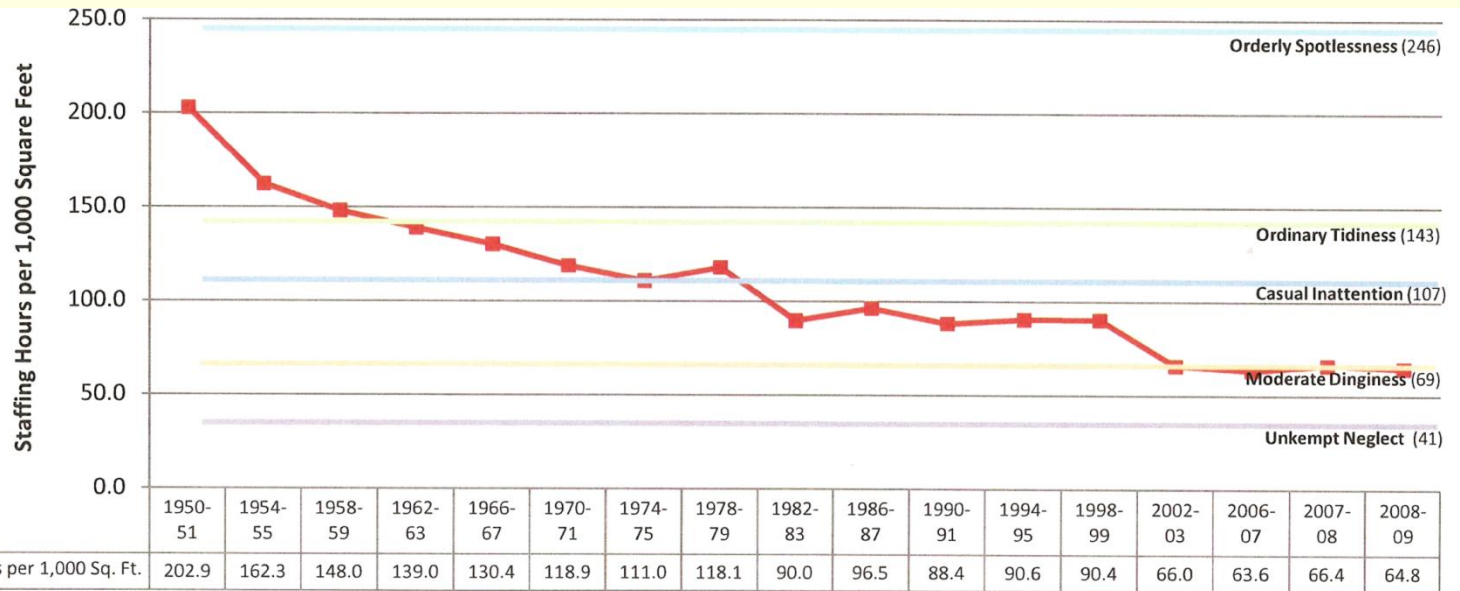
- | | |
|-----------|----------|
| ➤ LEVEL 1 | ➤ 75 FTE |
| ➤ LEVEL 2 | ➤ 51 |
| ➤ LEVEL 3 | ➤ 37 |
| ➤ LEVEL 4 | ➤ 29 |
| ➤ LEVEL 5 | ➤ 26 |



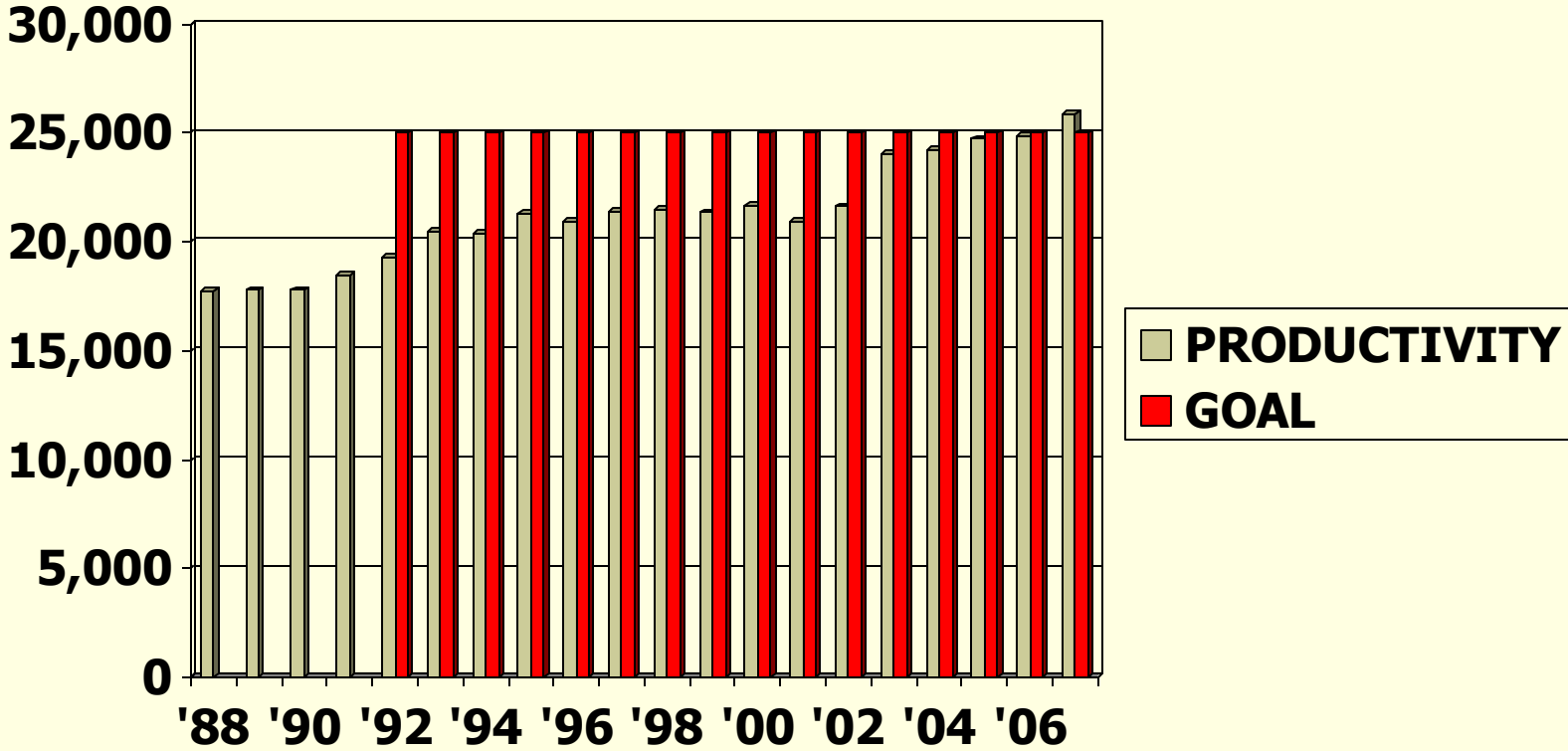
	Number In Report	Avg GSF Per FTE	Avg Cleaning Level	Productivity Factor	GSF/FTE Percent Change from 05_06	Level Percent Change from 05_06	Productivity Factor Percent Change from 05_06
Year 05_06	108	32,482	2.44	2.08	0.00%	0.00%	0.00%
Year 06_07	128	33,244	2.38	2.18	2.29%	-2.52%	4.81%
Year 07_08	170	30,196	2.45	1.93	-7.57%	0.11%	-7.14%
Year 08_09	177	30,693	2.46	1.95	-5.83%	0.54%	-5.99%
Year 09_10	212	31,840	2.44	2.04	-2.02%	-0.04%	-1.94%



QUANTITATIVE ANALYSIS 59 YEARS AND QUALITATIVE IMPACT



TRACKING TOWARDS SUCCESS



PREPARED FOR THE CHALLENGE

- TO ADD OVER
250,000
SQUARE FEET
OF BUILDINGS
WITH NO
INCREASE IN
PERSONNEL OR
BUDGET (2007)



IS THERE A WAY TO MEASURE SOIL LEVELS ON A SURFACE OTHER THAN BY EYEBALLS OR WHITE GLOVES?

- THERE IS – AN ATP METER
- WHAT IS ATP – ADENOSINE TRIPHOSPHATE
- According to Robert W. Powitz, Ph.D., MPH:
“ATP is the primary energy transfer molecule present in all living biological cells on Earth... its measurement is a direct indication of biological activity... Simply stated: no biological contamination, no microbial growth.”

WHAT IS ATP? EHT, MARCH 2010

- ADENOSINE TRIPHOSPHATE (ATP) IS A CHEMICAL PRODUCED ONLY IN LIVING CELLS AND IS FOUND IN BOTH LIVING AND ONCE-LIVING CELLS. SINCE ATP IS FOUND IN ORGANIC MATERIAL, GENERALLY LARGE AMOUNTS OF ATP DETECTED STRONGLY SUGGESTS AN UNCLEAN SURFACE. ATP IS MEASURED IN A LUMINOMETER (LIGHT METER) AFTER THE SAMPLE IS MIXED WITH THE LIGHT-PRODUCING CHEMICAL LUCIFERIN AND AN ENZYME REAGENT, TO PROVIDE A LIGHT READING. THE LARGER THE READING, THE GREATER AMOUNT OF ATP IN THE SAMPLE, AND THE GREATER AMOUNT OF ORGANIC MATERIAL ON THE SURFACE TESTED. LOWER READINGS ARE DESIRED.
- P. 17

IF YOU CANNOT MEASURE IT HOW CAN YOU PROVE YOU PERFORMED AND TO WHAT LEVEL?



http://www.hygienea.net/all_products.html

QUANTITATIVE PROCESS

- USING ATP
- ATP SWAB – HOW TO USE IT
- ONE SURFACE PER SWAB
- ITEMS SUCH AS DOOR KNOBS, DESK TOPS, LEDGES, COUNTERS, TABLES – ANY TOUCH AREAS

SAMPLE FROM A COLLEGE

SURFACE	BEFORE CLEANING	AFTER CLEANING
Toilet seat	75	57
Soap dispenser	61	88
Sink	32	16
Door handle	762	296
Floor	149	23

P.S. The readings were in different bathrooms, one measured before cleaning and the other bathroom after cleaning

WHAT SURFACES HAVE THE HIGHEST ATP READINGS IN A RESTROOM?

- TOWEL DISPENSER
- DOOR PLATE/HANDLE
- SINK
- PARTITION
- FLOOR
- URINAL
- TOILET SEAT
- DON'T ASK ABOUT MOP HEADS AND BUCKETS – YUCK!

THE KEY – MEASURE TODAY OR FACE POTENTIAL FAILURE TOMORROW

- USE ATP MEASUREMENT TO IDENTIFY ISSUES
- USE ATP MEASUREMENT TO IMPROVE PROCESSES
- USE ATP TO INCREASE AWARENESS
- USE ATP TO IMPROVE TRAINING
- **ALL THESE ELEMENTS DEAL WITH THE EFFECTIVENESS OF THE CLEANING PROCESS**

Study reveals current cleaning methods can do more harm than good to school environments

- ATP levels are measured in Relative Light Units (RLUs); higher RLU numbers indicate higher levels of contamination. ATP readings of greater than 100 RLUs represent levels of contamination that can pose a health risk.
- On the first day of the study, the research team measured an average of more than 200 RLUs at 7:45 PM (after children and staff had left but before the outside cleaners arrived). A 5:15 AM reading the next morning indicated average levels of nearly 400 RLUs, **a substantial increase in ATP levels following a facility cleaning by the outside service**. These readings indicate that the cleaning service may be contributing to ATP levels through cross-contamination, usually caused by antiquated cleaning methodology and technology.
- <http://www.news-medical.net/news/20091202/Study-reveals-current-cleaning-methods-can-do-more-harm-than-good-to-school-environments.aspx>
- SOURCE Coverall Health-Based Cleaning System

BRITISH DEPARTMENT OF HEALTH

- CROWN COPYRIGHT, 2007
- “THIS STUDY HAS DEMONSTRATED THAT ATP BIOLUMINESCENCE SWABBING IS A USEFUL INDICATOR OF CLEANLINESS IN THE HOSPITAL ENVIRONMENT, AND HAS GIVEN AN INDICATION THAT THIS TECHNIQUE MAY BE USEFUL AS AN EDUCATIONAL TOOL.”

OTHER MEASUREMENT METHODS

- RODAC PLATES
- IAQ EQUIPMENT
- GLOSS METERS
- SLIP METERS
- MOISTURE METERS
- VOC METERS
- THERMAL SCANS
- ETC.

IAQ METER



GLOSS METER



SLIP METER

USING FLUKE 983 PARTICLE METER TO MEASURE FILTER EFFICIENCY PARTICLES

QUANTITATIVE MEASURE

Bellingham School District Survey of Vacuum Equipment

Particles measured with Fluke 983 1 liter samples differential mode
Particle size range (micrometers)

Equipment	0.3	0.5	1.0	2.0	5.0	10.0
Back-pack 62-076757 (very clean filters)	47,748	5153	510	186	15	3
Back-pack 12579 (Dirty filters)	103,501	23539	5736	3230	506	109
Back-pack 12579 (Clean filters including hepa)	85,948	13948	2528	1493	401	120
Back-pack vacuum ID: 0116891 FXR "with dirty filter"	99,886	15819	1746	932	30	14
Back-pack vacuum ID: 0116891 FXR "with a clean hepa filter"	77,284	20902	3649	3278	651	196
Back-pack vacuum ID: 0117640 FXR "with dirty filter"	117,061	22666	1900	1026	71	16
Back-pack vacuum ID: 0117640 FXR "with a clean hepa filter"	93,133	13755	868	417	41	6
Back-pack vacuum cleaner #0116890 FXR dirty filter	281,750	67464	12918	6472	1707	995
Back-pack vacuum cleaner #0116890 FXR new filter	248,656	54535	13063	7259	1205	182
Back-pack 0116789 FXR (Dirty filters)	54,124	10971	1538	632	39	6
Back-pack 0116789 FXR (Clean filters)	40,701	8009	1247	571	73	16
Back-pack 0116788 FXR (Dirty filters)	24,482	3768	651	337	53	8
Back-pack 130822 (Dirty filters)	50,725	17418	4888	2491	316	69
Back-pack 130822 (Clean filters)	35,820	9391	2590	1290	171	29
Old Royal Vacuum Cleaner (rarely used)	19,518	4085	2580	2141	889	261
Back-pack 62-074935 (Dirty filters)	48,963	12401	3386	1996	662	223
Back-pack 62-074935 (Clean filters)	57,299	13846	3816	2317	661	167
Back-pack 62-034055 (Dirty filters)	53,213	14326	4016	2435	596	111
Back-pack 62-034055 (Clean filters)	58,022	15043	4281	2619	611	133
Back-pack #184163 (dirty filters)	149,427	23263	4385	2053	330	65
Back-pack #184163 (new filters)	88,125	15372	3655	1985	257	37
Up-right Windsor #131146 (very clean filter)	90,437	11513	1329	682	176	72



IEHA MEMBERS MEASURING!



Cleaning Industry Management Standard (CIMS)



www.issa.com

ISSA®

CIMS: What Is It?

- A standard developed through a consensus-based process
- Applies to an organization as a whole
- Building service contractor or in-house cleaning operation
- Size, service-sector is irrelevant
- Non-Prescriptive

CIMS Certification

What Does It Mean to *YOU*?



- Certification demonstrates that an organization's business practices are structured to deliver consistent, quality services
- Certification provides assurance that a cleaning service contractor complies with the Standard and "walks the walk!"
- CIMS-GB Certification demonstrates that your contractor is prepared to partner with you in your commitment to sustainability and the LEED process

CIMS Certification



- Comprehensive Assessment
 - Third-party, accredited assessor
 - Documentation review
 - Interviews with management, personnel, customers
 - On-site observation to verify implementation
- Assessor Recommendation
- **CIMS-GB**: Optional designation that demonstrates “capability”



Facility Service Providers



Business Outcomes

- Distinguish business in marketplace
- Better respond to needs of customer
- Face pressures of being asked to do more with less
- Improve quality, consistency, efficiency of service
- Demonstrate commitment to excellence & sustainability
- Sustainable business model
- Third-party validation



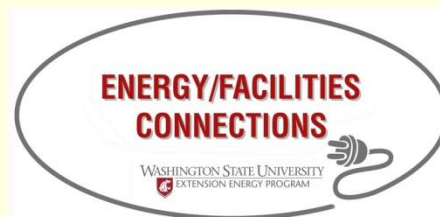
SOURCE ARTICLES

- *EXECUTIVE HOUSEKEEPING TODAY – EHT*, MARCH 2010 (2 ARTICLES)
- *CLEANING AND MAINTENANCE MANAGEMENT*, OCTOBER 2009

<http://cmmonline.com/article.asp?IndexID=6637181>

- *COLLEGE PLANNING AND MANAGEMENT*, JUNE 2009

http://www.peterli.com/cpm/resources/articles/archive.php?article_id=2231



REVIEW OF KEY TOPICS

- STORMS OF LIFE
- THE CRITICAL GUIDE
- EFFICIENCIES VERSUS EFFECTIVENESS IN CLEANING
- QUANTITATIVE VERSUS QUALITATIVE ASSESSMENT OF CLEANING
- BLENDING BOTH TOGETHER IN DEVELOPING STAFFING MODELS
- SCIENTIFIC MEASUREMENT – WE CAN MEASURE SOIL LOADS
- ISSA'S CIMS – CLEANING INDUSTRY MANAGEMENT STANDARDS
- QUESTIONS & ANSWERS

MARCH 12, 2011

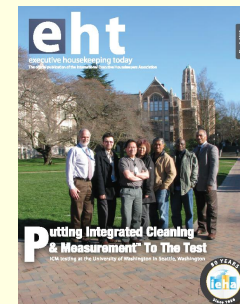


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**ENERGY/FACILITIES
CONNECTIONS**

WASHINGTON STATE UNIVERSITY
EXTENSION ENERGY PROGRAM



UTILIZING CUSTODIAL STAFFING AND PERFORMANCE STANDARDS FOR SUCCESS

**“MEASURE TODAY TO SURVIVE THE
STORMS OF TOMORROW”**