

M1	10-2600-180	1	41,205	20,280	61,485
M2	10-2600-180	1	38,210	19,858	58,068
M3	10-2600-180	1	31,678	18,910	50,589
M3	10-2600-180	-0.5	-15,839	-9,455	-25,294
		2.5	95,254	49,593	144,847

M3	10-2600-180	0.5	15,839	9,455	25,294
C2	10-2600-180	0.5	13,603	1,950	15,553
C2	10-2600-180	0.5	13,603	1,950	15,553
C2	10-2600-180	0.5	13,603	1,950	15,553
C2	10-2600-180	0.5	13,603	1,950	15,553
C2	10-2600-180	0.5	13,603	1,950	15,553
C2	10-2600-180	0.5	13,603	1,950	15,553
C2	10-2600-180	0.5	13,603	1,950	15,553
		4.0	111,062	23,107	134,169

Total Custodian labor	4.0	111,062	23,107	\$134,169
Less subsidy: ss/ret				(\$8,576)
Total supplies				\$19,000
Amort-disposable equipment				\$500
Depr-capital equipment				\$2,149
Total custodial expense				\$147,242
Total square feet-2 bldgs				144,000
Cost per sq ft				\$1.02

Benchmarks

144,000 square feet	
PASBO-work load-1	5.79
PASBO work load-2	6.42
BETCO	4.37
88,000 square feet	
PASBO-work load-1	5.09
PASBO work load-2	5.48
BETCO	2.67

See page 2 for
sq. ft. benchmark data

144,000- total square feet of 2 buildings

88,000- square feet of 2 buildings serviced by custodians

C1	C-1	1	27,206	18,251	45,457
	FTE's	4	108,824	73,006	181,830

Maintenance and Custodial Services- Survey

	ECTS	District Average	District Total
Maintenance (non-cleaning) personnel:			9 responses
Total FTE	2.5	5.0	45.0
Total wages and benefits	\$ 144,847	\$ 241,436	\$2,172,920
employed by district: yes_____no_____	yes		9-yes
collective bargaining agreement: yes_____no_____	yes		6-yes, 3-no
contracted service: yes_____no_____	no		9-no
Custodial (cleaning) personnel			
Total FTE	4	20.3	182.60
Total wages and benefits	\$ 125,593	\$676,471	\$6,088,237
employed by district: yes_____no_____	yes		8-yes, 1-no
collective bargaining agreement: yes_____no_____	yes		6-yes, 3-no
contracted service: yes_____no_____	no		3-yes, 6-no
Total district cost of cleaning/custodial consumable supplies	\$ 19,000	\$47,158	\$424,420
Number of district buildings serviced by custodians	2	5	48
Total square feet of district buildings serviced by custodians	144,000	510,127	4,591,142
If using contracted service: Total cost of contracted service	\$ -	\$89,521	805,687
Total student district enrollment K-12: ADM	494	2440	21,960
Maintenance personnel cost per sq ft	\$ 1.01	\$ 0.47	
Maintenance - sq ft per FTE	57,600	102,025	
Maintenance cost per ADM	\$ 293	\$ 99	
Custodial Cost- supplies/personnel	\$ 144,593	\$ 813,149	
Custodial cost - per sq ft	\$ 1.00	\$ 1.59	
Custodial sq ft per FTE	36,000	25,143	
Custodial cost per ADM	\$ 293	\$ 333	
ADM's per custodian	124	120	

Sq. ft.
benchmark
data

Districts that returned survey:

Fairview

Fort Leboeuf

General McLane

Girard

Harbor Creek

Iroquois

Millcreek

Northwestern

Wattsburg

Districts not returning survey

North East

Union City

No comparison for 88,000 sq. ft.
Only asked districts for total sq. ft.

PASBO CUSTODIAL STAFFING CALCULATOR

The formula used in this calculator was originally presented by the PA Department of Education as a guide to assist in the allocation of facilities department resources. It has been reviewed by the PASBO Facilities Management Committee and approved for use as a staffing guide along with other pertinent information at the local school level.

School District: ECTS
 School: _____
 Date: Feb-11

Enter the following data for the noted school:

	Input data	Cust. allocation Factors
1. Number of regular, full time teachers in the school =	58	6.44
2. Number of elementary (full-day K - 6) students in the school =		0.00
3. Number of secondary (7-12) students in the school =	494	2.47
4. Total number of teaching spaces* =	77	6.42
5. Total area that is cleaned each day of the school in s.f. =	144000	9.00
6. Total number of washroom fixtures ** =	161	4.60

RESULTING CUSTODIAN STAFFING ALLOCATION =

5.79

* Includes regular classrooms (pro-rate non-standard rooms), shops, gyms (possibly multiple spaces), seminar, LGI, etc.

** Includes sinks, urinals, toilets, individual stall showers (pro-rate gang showers)

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5. Total area that is cleaned each day of the school in s.f. =	88000	5.50
6. Total number of washroom fixtures ** =	161	4.60

RESULTING CUSTODIAN STAFFING ALLOCATION =

5.09

* Includes regular classrooms (pro-rate non-standard rooms), shops, gyms (possibly multiple spaces), seminar, LGI, etc.

** Includes sinks, urinals, toilets, individual stall showers (pro-rate gang showers)

PASBO CUSTODIAL STAFFING WORK LOAD FORMULA

Revised by Craig Boltz, Physical Plant Director, Elizabethtown Area School District

A. Teacher factor

Given: 1 Custodian for each 8 teachers

No. of Teachers:

How to count teachers:

- Count each teacher who has a classroom for a full day.
- Count the teacher who does counseling or teaching part-time provided this person has an office or area which must be cleaned each day. If this person uses a classroom or office which is used by some other person which was counted, do not count this teacher.
- In a school where night classes are held, only count night teachers and students if the areas listed are cleaned before classes meet and again after classes have ended.
- Staff members should be counted provided they have an office or area that must be cleaned each day.

B. Student factor

Given: 1 Custodian for each 225 students.

No. of Students

How to count students:

- Count only students that are considered day school. Do not count night students unless the areas used are cleaned before and after night school.
- Count all students in double sessions.

C. Room factor

Given: 1 Custodian for every 11 rooms to be cleaned.

No. of Rooms

How to figure rooms:

- An average room was estimated to contain 1,000 square feet of floor area. Using this as a divisor, break large areas (gymnasiums, multi-purpose rooms, inside corridors, etc.) into equivalent rooms. Rooms of less than 800 square feet should be added together and divided by 1,000 square feet. Any room between 800 and 1,200 square feet is counted as one room. Only count rooms or areas that are cleaned each day.

D. 15,000 = square footage factor

Given: 1 Custodian for each 15,000 square feet of building area.

Total square ft. of building area:

How to figure square footage:

- Total all areas that are cleaned each day, including outside corridors and walks if they are cleaned each day.

E. Average of all four factors to determine number of cleaning custodians needed

Total custodial staff needed: add the four factors previously calculated and divide the total by four.

Custodial Staffing Formula Worksheet

	Building one	Building two	Total	Building four	Building five	Building six
Teacher Factor ÷ 8 = # Cust.	44 / 5.5	14 / 1.75	58			
Student Factor ÷ 225 = # Cust.	350 / 1.5	75 / .33	425			
Room Factor ÷ 11 = # Cust.	59 / 5.4	18 / 1.6	77			
Building Size ÷ 15,000 = # Cust.	102000 / 6.8	42000 / 2.8	144000			
AVERAGE	4.80	1.62	6.42			
ACTUAL	3.25	.75	4			

This formula has arrived at the number of custodians needed in an “average” school plant of this size and enrollment. When staffing this building consideration must be given to areas that will take this building out of this “average” classification. They are:

- Custodian staff performed maintenance
- Groundskeeping
- Principal requests
- Operational requirements
- Age of building
- Type of flooring
- Condition of mechanicals
- Number/condition of restrooms
- Secondary vs. elementary
- Quality of custodial staff
- Quality of supervision
- Housekeeping standards
- Neighborhood
- Site topography
- Swimming pool (yes/no)
- Extracurricular use
- Others unique to your district

Total square ft. of building area:

How to figure square footage:

- Total all areas that are cleaned each day, including outside corridors and walks if they are cleaned each day.

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Custodial Staffing Formula Worksheet

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Student Factor ÷ 225 = # Cust.	350 / 1.5	75 / .33	425			
Room Factor ÷ 11 = # Cust.	59 / 5.4	18 / 1.6	77			
Building Size ÷ 15,000 = # Cust.	63000 / 4.2	25000 / 1.6	88000			
AVERAGE	4.15	1.33	5.48			
ACTUAL	3.25	.75	4			

This formula has arrived at the number of custodians needed in an “average” school plant of this size and enrollment. When staffing this building consideration must be given to areas that will take this building out of this “average” classification. They are:

- Custodian staff performed maintenance
- Groundskeeping
- Principal requests
- Operational requirements
- Age of building
- Type of flooring
- Condition of mechanicals
- Number/condition of restrooms
- Secondary vs. elementary
- Quality of custodial staff
- Quality of supervision
- Housekeeping standards
- Neighborhood
- Site topography
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- Extracurricular use
- Others unique to your district

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BUILDING NAME Schools
TYPE OF SCHOOL High School
GROSS SQ. FEET 144,000

K-12 AREA TYPES FOR CLEANING

Area Type	Area %	Sq Ft
CLASSROOM (PRE/KG/1)	0.0%	0
CLASSROOM (2-5)	0.0%	0
CLASSROOM (6-12)	26.0%	37,440
COMPUTER CLASSROOM	2.0%	2,880
CLASSROOM (LAB)	3.0%	4,320
ART/MUSIC/DRAMA/VOC	5.5%	7,920
AUDITORIUM	3.0%	4,320
LIBRARY/MEDIA	3.0%	4,320
STAFF AREAS/OFFICE/CONF	8.0%	11,520
HALL/LOBBY/ENTRANCE	19.0%	27,360
CAFETERIA	3.0%	4,320
FOOD PREP	1.0%	1,440
GYM/WEIGHT/WRESTLING	9.0%	12,960
LOCKER RM./POOL DECK	5.0%	7,200
RESTROOMS	2.5%	3,600
RESTROOMS/SINGLE ELM.	0.0%	0
JANITOR/MECH/STORAGE	10.0%	14,400

TOTAL HOURS NEEDED TO CLEAN YOUR SCHOOL

TOTAL FTE's NEEDED TO CLEAN YOUR SCHOOL

CLEANING LEVELS & TIMES (HRS)

CL1	CL2	CL3	CL4	CL5
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
12.74	9.09	7.37	7.50	2.56
0.99	0.71	0.57	0.51	0.20
1.55	1.14	0.95	0.88	0.37
2.19	1.55	1.18	1.08	0.45
0.70	0.51	0.37	0.32	0.14
1.26	0.94	0.82	0.73	0.28
4.70	3.66	3.11	2.86	1.21
4.86	4.54	3.84	3.69	1.70
0.79	0.77	0.68	0.66	0.39
0.63	0.63	0.44	0.40	0.18
1.69	1.44	0.99	0.93	0.61
1.89	1.81	1.46	1.45	0.67
7.74	7.69	7.57	7.52	7.48
0.00	0.00	0.00	0.00	0.00
0.73	0.51	0.36	0.24	0.23
CL1	CL2	CL3	CL4	CL5
42.47	35.00	29.71	28.77	16.48
5.31	4.37	3.71	3.60	2.06

CL 1 Exceptional Surfaces are orderly with no dust, dirt, debris, smudges or stains.

CL 2 Ordinary Surfaces are orderly with light amounts of dust, dirt, debris, smudges or stains.

CL 3 Relaxed Surfaces have noticeable amounts of dust, dirt, debris, smudges or stains.

CL 4 Marginal Surfaces have heavy amounts of dust, dirt, debris, smudges or stains.

CL 5 Unacceptable Surfaces have major accumulation of dust, dirt, debris, smudges or stains.

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BUILDING NAME	Schools
TYPE OF SCHOOL	High School
GROSS SQ. FEET	88,000

K-12 AREA TYPES FOR CLEANING

Area Type	Area %	Sq Ft
CLASSROOM (PRE/KG/1)	0.0%	0
CLASSROOM (2-5)	0.0%	0
CLASSROOM (6-12)	26.0%	22,880
COMPUTER CLASSROOM	2.0%	1,760
CLASSROOM (LAB)	3.0%	2,640
ART/MUSIC/DRAMA/VOC	5.5%	4,840
AUDITORIUM	3.0%	2,640
LIBRARY/MEDIA	3.0%	2,640
STAFF AREAS/OFFICE/CONF	8.0%	7,040
HALL/LOBBY/ENTRANCE	19.0%	16,720
CAFETERIA	3.0%	2,640
FOOD PREP	1.0%	880
GYM/WEIGHT/WRESTLING	9.0%	7,920
LOCKER RM./POOL DECK	5.0%	4,400
RESTROOMS	2.5%	2,200
RESTROOMS/SINGLE ELM.	0.0%	0
JANITOR/MECH/STORAGE	10.0%	8,800

TOTAL HOURS NEEDED TO CLEAN YOUR SCHOOL
TOTAL FTE"s NEEDED TO CLEAN YOUR SCHOOL

CLEANING LEVELS & TIMES (HRS)

CL1	CL2	CL3	CL4	CL5
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
7.79	5.56	4.50	4.58	1.56
0.61	0.43	0.35	0.31	0.12
0.95	0.70	0.58	0.54	0.23
1.34	0.95	0.72	0.66	0.28
0.43	0.31	0.23	0.19	0.09
0.77	0.58	0.50	0.45	0.17
2.87	2.23	1.90	1.75	0.74
2.97	2.77	2.35	2.26	1.04
0.48	0.47	0.41	0.40	0.24
0.39	0.39	0.27	0.25	0.11
1.03	0.88	0.61	0.57	0.37
1.15	1.11	0.90	0.88	0.41
4.73	4.70	4.63	4.59	4.57
0.00	0.00	0.00	0.00	0.00
0.45	0.31	0.22	0.15	0.14
CL1	CL2	CL3	CL4	CL5
25.95	21.39	18.16	17.58	10.07
3.24	2.67	2.27	2.20	1.26

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Erie County Technical School
Maintenance and Custodial Staff

	M-1	M-2	M-3	C-1	C-2	Employees		Total-FTE
	FT	FT	FT	FT	PT	Fulltime	Parttime	
2010-2011	1	1	1	0	7	3	7	6.5
2009-2010	1	1	1	0	7	3	7	6.5
2008-2009	1	1	1	0	7	3	7	6.5
2007-2008	1	1	1	0	7	3	7	6.5
2006-2007	1	1	1	1	5	4	5	6.5
2005-2006	1	1	1	1	5	4	5	6.5
2004-2005	1	1	1	3	0	6	0	6
2003-2004	1	1	1	3	0	6	0	6
2002-2003	1	1	1	3	0	6	0	6
2001-2002	1	1	1	3	1	6	1	6.5
2000-2001	1	1	1	3	0	6	0	6
1999-2000	1	0	2	2	1	5	1	5.5
1998-1999	2	0	2	2	1	6	1	6.5

C-2 part time - 4 hours per day

Erie County Technical School
Custodial Equipment-Capitalized

Custodial- Capitalized Equipment	Cost	Purchase Date	Life	Annual Depreciation	Undepreciated Residual value	Years remaining
Advance Rider Floor maintenance	\$13,990	Aug-07	10	\$1,399	\$8,394	6
Rest Room Cleaning machine	\$1,912	Aug-09	15	\$127	\$1,657	13
Rest Room Cleaning machine	\$1,912	Aug-09	15	\$127	\$1,657	13
Cadet carpet extractor	\$2,475	Aug-06	5	\$495	\$0	0
Totals	\$20,289			\$2,149	\$11,708	