

The Print Cap

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Dickinson College

A private liberal arts college. Enrollment: **2,386**. Peer institution to Westminster

Print Cap: 600 pages semester.

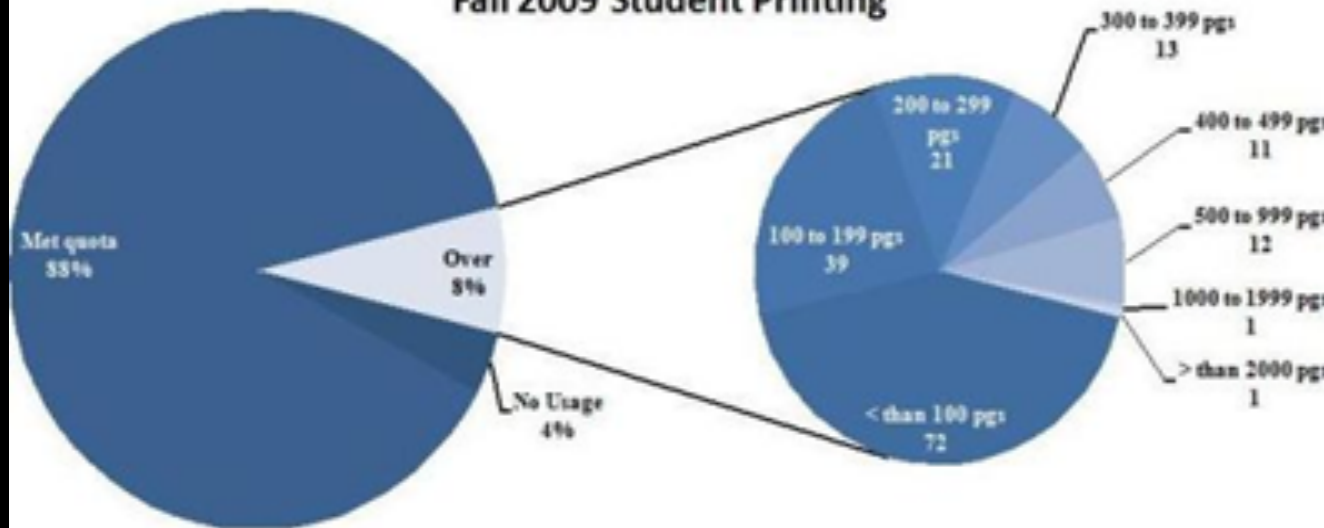
92% of students stayed within the limit.

This led to a 57% decrease in printing. Most students didn't end up paying anything because they changed their behavior.

This saved the school **\$34,196** and costed the students **nothing**.

It also saved 758,758 sheets, and 89 trees.

Fall 2009 Student Printing



Luther College

Enrollment: 2421 students

Print cap: **400 pages /semester** (an allowance of \$20 each for fall and spring semester and 100 pages for Summer session and J-Term (equivalent to May Term)
Collective cap amounted to 900,000 sheets.

Students collectively used only 307,948, only **34% of the possible.**

Loyola Marymount

250 pages per semester.

Collective use: **66%** of those 1,500,000 possible pages.

This is a relatively restrictive cap, and students still managed to cut back use.

Williams College

2246 students

Cap set so that **90% of students** would fall under it without changing their habits. 500 pages per semester.

They experienced a **25% to 35% decrease** (Westminster wants: 20% decrease).

Even a liberal cap can inspire impressive savings.

Virginia Tech

Enrollment: 28,650

They've had a print cap for 10 years. Initially: **1 million** sheets per year were printed.

Now: **250,000 sheets.** This suggests substantial long-term habit change: a print-cap could potentially alter student behavior over the long-run.

The Evergreen State College, Bard College, University of Puget Sound, and Red River College all use **printer release stations**. This reduces forgotten, unwanted, and abandoned pages.

Impact of Print Cap at Westminster

| Cap number of pages | Cost to the School | Savings to the School | Paper Used | Paper Saved (in sheets) | CO2 (kg) | Hours of Running a 60kwh Light Bulb | Trees Used | % students over cap | \$\$ given each year |
|---------------------|--------------------|-----------------------|------------|--------------------------|----------|-------------------------------------|------------|---------------------|----------------------|
| Status Quo | \$32,539 | N/A | 1,076,643 | N/A | 3,018 | 190,013 | 8.33 | N/A | N/A |
| 500 | \$20,605 | \$11,934.22 | 681,766 | 394,877 37% reduction | 1,911 | 120,323 (69,690 saved) | 5.27 | 21% | \$15.00 |
| 750 | \$24,506 | \$8,032.87 | 810,853 | 265,790 24% reduction | 2,273 | 143,105.2 (46,908 saved) | 6.27 | 13% | \$22.50 |
| 1000 | \$26,810 | \$5,728.94 | 887,085 | 189,558 18% reduction | 2,487 | 156,559.22 (33,454 saved) | 6.86 | 8% | \$30.00 |

Keep in mind that other schools have experienced a great reduction than their set print cap: **these numbers are conservative.**
2011-2012 printing on student printers at Westminster.

Release Stations

- Small computer stand located by printers
 - Students send a job to the printers, and must type in a code to the release station before it comes out
 - Secures jobs, fewer abandoned jobs, ability to correct mistakes
 - Can be used in correspondence with PaperCut, our current system
 - We already pay for PaperCut--these stations would be the only cost incurred in the program.
- They would make it easier for students to stay within their allotted print budget because they could reduce unwanted printed pages.



Cost Benefit Analysis Process

Cost-Benefit Analysis: Print Cap at Westminster College (750 pages)

| Year | Costs | Benefits | Total Benefits | Discount Factor | Present Value |
|------|------------|------------|----------------|-----------------|---------------|
| 0 | \$5,000.00 | \$9,909.21 | \$4,909.21 | \$1.00 | \$4,909.21 |
| 1 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.95 | \$9,345.22 |
| 2 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.90 | \$8,858.03 |
| 3 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.85 | \$8,396.24 |
| 4 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.81 | \$7,958.52 |
| 5 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.77 | \$7,543.62 |
| 6 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.73 | \$7,150.35 |
| 7 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.69 | \$6,777.59 |
| 8 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.65 | \$6,424.25 |
| 9 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.62 | \$6,089.34 |
| 10 | \$50.00 | \$9,909.21 | \$9,859.21 | \$0.59 | \$5,771.88 |

NPV= \$79,224.26

Discount

Rate= 5.5%

Benefits

- Save money
 - Toner
 - On paper
 - Printer wear and tear (maintenance kits)
 - On recycling/waste hauling (fewer wasted pages)
- Save paper
- Save energy
- Encourages students to consciously consider their use of resources: possible change of behavior in other areas

How to sell it to students

Westminster isn't a business-- it spends more on us than we pay. Hence, savings to the school are savings for us.

Don't let other people waste your tuition dollars with lazy printing habits.

Sources

Papercut (print.westminster)

AASHE.org (Association for the Advancement in Higher Education).
Limiting Printing OP-T2-39

http://www.westminstercollege.edu/environmental_center/

Dickinson College News and Events: Fall 2009 Quota Information

Printing FAQ: <http://oit.williams.edu/help-docs/printing/printing-faq/>

<http://www.flast@equitrac.com>

Thanks to Ryan Harrison IT Dept. for all of his information