

**Tale of Three Campuses:
A Comparison of Three Small Liberal Arts Colleges**

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February 14, 2012

This paper compares and contrasts the operations of three co-ed, regionally accredited liberal arts colleges of similar enrollment and with similar characteristics except for significant differences in the size of their endowments and operating budgets.

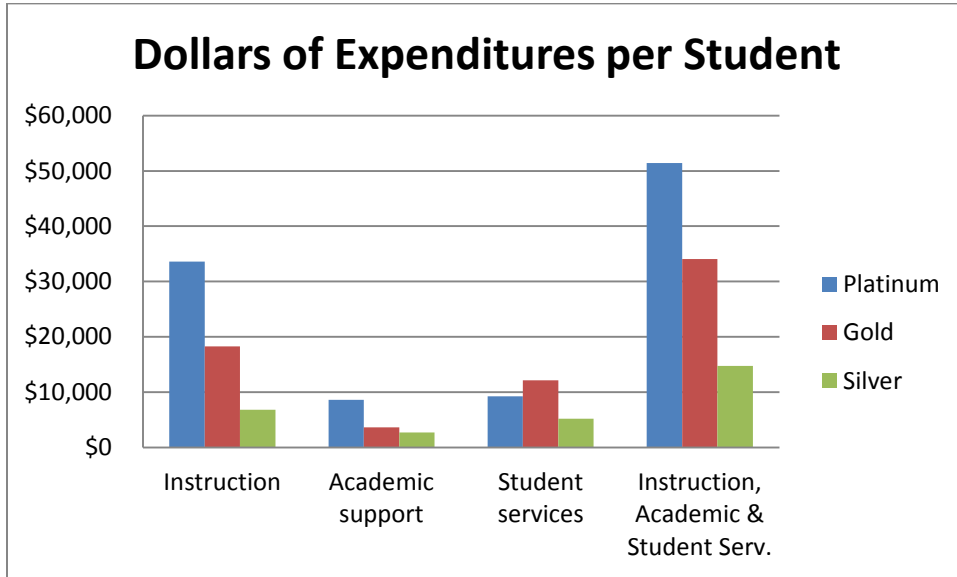
A visitor to each of the three campuses would note many similarities: similarities in the number of students, in the size of the residential population, in the curricula, in intercollegiate sports, and so on. Students choose each of these schools for its small size, sense of community and for its faculty who are committed to teaching. On graduation day, students at all three receive their Bachelor's degrees as proud family members look on. And all three have alumni who have gone to graduate school, who have gone on to excel in their fields and who remain active and engaged with their alma maters.

What are the differences in instruction, services and activities among colleges with vastly different levels of resources? How do colleges with very different levels of resources choose how and what to provide and what not to provide to their students? What difference does it make how much a college spends to educate its students? How do the results differ? What differences are there in the experiences that the students have? . To protect the identities of the three schools, we will refer to them as Platinum College, Gold College and Silver College. Just as one can look good wearing jewelry made from any of those precious metals, a graduate of any of the three colleges can be proud to hold a degree from any of the three institutions—each has a proud history, and its share of successful alumni.

This paper will explore the differences in costs among the three colleges and will try to illuminate the differences in the experiences of the students at the three schools. Two important questions, however, must remain unanswered: how does the value added to the students from freshman to senior year differ by institution, and what is the absolute level of knowledge that students graduate with at the three colleges. All three are regionally accredited, degree-granting institutions, a threshold measure of quality. However, we are not very good at measuring our outcomes in higher education; we are much better at understanding the processes that we use to educate our students. As proxies for direct answers to these questions, we are able to look at the differences in work that students do at the three colleges and to explore their satisfaction with their experiences. We also can glean some data from the alumni surveys that the colleges give although response rates are relatively low on these and the questions asked among the three schools are not directly comparable; thus we have not compared the results of the alumni surveys.

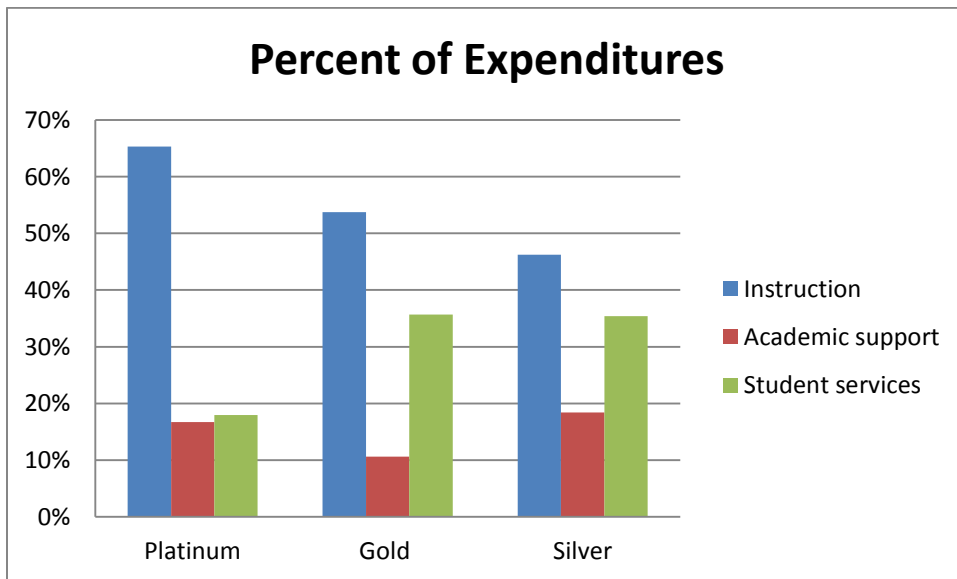
Expenditures

Platinum College spends more than \$50,000 per student a year for instruction, academic support and student services while Gold College spends almost \$35,000 per student and Silver College educates its students on less than \$15,000. Platinum and Gold spend more on Instruction than Silver spends on all three areas.



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The allocation of resources to these three areas also differs significantly by institution. Platinum devotes more than 60% of its expenditures for instruction, academic support and students services for instruction while Gold spends 54% of these resources on instruction and Silver spends only 46%. Both Gold and Silver devote a significantly higher percent of their resources to student services than Platinum and Gold College actually spends more than Platinum for student services.



Neither Silver nor Gold allocates any resources to Public Service whereas Platinum allocates \$373 per student. Silver also does not allocate any resources to Research whereas Gold allocates \$240 a student and Platinum allocates about seven times that amount at \$1762 per student. Platinum provides generous stipends to students in the summer for doing research with faculty and Gold offers some summer stipends for student research with faculty in the sciences. Yet with this vastly different allocation of resources to research, the differences in students doing research with faculty are far smaller. Forty-seven percent of the students at Platinum report doing research with faculty by their senior year compared with 32% at Gold and 24% at Silver. (Source: ESS and NSSE data)

Resource allocations to Institutional Support (expenditures for administrative expenses) are also vastly different with Silver spending 24% of what Platinum spends and Gold spending 47% of Platinum’s expenditures. Platinum and Gold both support museums on their campuses; Silver had one which it has closed to save money as it was not deemed mission critical. The expenditures for the museums are included in these figures. Thus when we look at the total Educational and General Expenses (the sum of the instruction, academic support, student support, research, public service and institutional support expenditures) at these three schools, we see that Platinum spends \$68,504 per student compared with \$41,323 at Gold and \$18,282 at Silver; vastly different levels of expenditures.

Surprisingly, when we look at auxiliary enterprises which are primarily the residence halls and dining facilities, we find smaller differences. Silver spends 41% of what Platinum spends and Gold spends 91% of the Platinum’s expenditures. Dining options at Platinum abound in part because students can eat at any of the dining facilities which are part of the consortium. At Gold, besides the large dining hall with a myriad of options, there are several small eateries and sushi at the athletic center. Silver has a well-stocked dining hall and a few other options but not as many as the other institutions nor are the hours as long. At Platinum, students can request a barbecue package from food services any time they want and have their own cook-out on the grills around campus.

Expenditures per FTES	Platinum	Gold	Silver
Instruction	\$33,576	\$18,284	\$6,811
Academic support	\$8,590	\$3,619	\$2,716
Student services	\$9,245	\$12,142	\$5,214
Instruction, Academic & Student Serv.	\$51,412	\$34,045	\$14,742
Research	\$1,762	\$240	\$0
Public service	\$373	\$0	\$0
Institutional support	\$14,957	\$7,038	\$3,540
Educational and General Expenses	\$68,504	\$41,323	\$18,282
Auxiliary enterprises	\$11,487	\$10,397	\$4,751
Total expenses	\$79,991	\$51,720	\$23,032

FTES	1526	1639	1503
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Source: IPEDS/ Report Writer, AGB Benchmarking Service, data.agb.org 2008 - 09

If we look at the allocation of expenses to salaries and other expenditures, we see that overall all three schools allocate slightly more than 40% of their expenditures to salaries and wages. There are significant differences by expenditure category. The greater the allocation of resources to salaries and wages the less that is left to provide funds for operating expenses and activities although there are some other differences which are accounted for by activities which are outsourced and thus the personnel costs are not reflected as salary costs. In all areas except auxiliary enterprises, Silver spends a larger percent of its resources on salaries than Platinum despite outsourcing more functions. In Auxiliary Enterprises, Silver allocates almost no salary resources to salaries. This is in part attributable to the outsourcing of the food service and much less professional support in the residence halls; Silver depends much more on student RA's than the other schools.

Salaries as % of Category Expenditures	Platinum	Gold	Silver
Instruction	52.2%	53.9%	58.8%
Academic Support	20.3%	39.2%	34.7%
Student Services	39.1%	26.8%	42.2%
Institutional Support	39.7%	44.5%	47.4%
Auxiliary Enterprises	16.3%	12.2%	2.3%
Total Expenditures	42.1%	41.4%	43.3%

Employee Data

Overall, Platinum and Gold have relatively similar numbers of employees while Silver has more than 200 full-time equivalent employees fewer than the other two schools. (Note: total employees also includes faculty.) All three schools rely almost entirely on full-time employees; less than 10% of the FTE employees at any of the schools are part-time. Where services are outsourced, the institution does not count the employees as they work for other entities. Thus, the differences between the number of employees at Silver and the two other schools would be somewhat smaller if we could account for the employees in the outsourced areas.

If we look at the employee data in terms of full-time equivalent students per full-time equivalent employee, we see the same magnitude of difference. Silver has almost twice the number of students per employee with 4.95 as the other two colleges. Gold and Platinum have similar number of employees per student at 2.6 has and 2.9 respectively; yet they have very different levels of operating expenses which implies significant differences in salaries. Platinum and Gold have more employees than Silver in all areas of the college.

Employee Data	Platinum	Gold	Silver
Total full-time employees	544	505	322

Total part-time employees	157	169	72
Total FT & PT employees	701	674	394
Total full-time equivalent (FTE) employees	596	561	346
Full-time employees as % of FTE employees	91%	90%	93%
FTE students per FTE employee	2.6:1	2.9:1	4.9:1

Source: IPEDS/ Report Writer, AGB Benchmarking Service, data.agb.org 2010-11 for Platinum and Silver and 2009-10 for Gold

Faculty Salaries, Benefits and Distribution of Faculty by Rank

There are significant differences in the average salary of the faculty at the three schools. The all ranks average salary at Platinum is \$104, 472 which is 37% greater than the average faculty salary at Gold and 86% greater than the average at Silver. The cost of living at Platinum which is in a high cost suburban/urban area is significantly greater than at the other two institutions which are in very rural areas. Unfortunately, there is no consumer price index (CPI) for each of these areas so it is not possible to quantify the magnitude of the difference. The all ranks average salary is influenced both by the average salary at each rank and the % of faculty at each rank.

FT Faculty Salaries - equated 9 month contracts (2010-11)	Platinum	Gold	Silver
Professor	\$135,066	\$94,479	\$69,871
Assoc Prof	\$94,473	\$69,445	\$57,412
Assist Prof	\$77,055	\$59,358	\$50,398
Instructor/No Rank	\$54,231	\$55,000	\$41,987
All Ranks Average Faculty Salary	\$104,472	\$76,200	\$56,051

Source: IPEDS/ Report Writer, AGB Benchmarking Service, data.agb.org

We see that the distribution of faculty by rank differs significantly among the three institutions. Almost half of the faculty at Platinum are at the rank of Professor compared with 44% at Gold and 24% at Silver. The all ranks average salary is influenced not only by the average salary at each rank but also by the percent of faculty at each rank. More than 98% of the full-time faculty at both Platinum and Gold have doctorates or other terminal degrees while only 82% of the faculty at Silver have a doctorate or other terminal degree.

Faculty by Rank	Platinum	Gold	Silver
Professor	47%	44%	24%
Associate Professor	28%	37%	29%
Assistant Professor	25%	20%	35%
Instructor/Lecturer			13%

Source: Institutional data

The fringe benefits offered at the three schools are similar and make up your normal set of fringe benefits. Using a comparable national data base, the benefits average 30% of the faculty salary at Platinum and Gold and 26% at Silver. The major differences are in the amount spent on retirement and

health benefits. None of the three schools indicate any payments for a tuition benefit or faculty housing which is a flaw in the reported data. Platinum has a mortgage program for faculty as well as offering rental housing to faculty; Silver has a very limited rental program for faculty for housing on the periphery of the campus. The value of these programs has not been quantified.

Avg. Benefit Expenditures per Faculty (2010-11)	Platinum	Gold	Silver
Retirement	\$11,205	\$7,301	\$3,265
Faculty-Medical/Dental	\$6,886	\$11,644	\$4,959
Group Life Ins	\$102	\$138	\$96
Other Ins Benefit	\$38		
Disability	\$317	\$215	\$145
Tuition Plan			
Faculty-Housing			
Social Security	\$7,175	\$5,680	\$3,961
Unemployed Comp			\$50
Worker Comp	\$1,075	\$380	\$201

Source: IPEDS/ Report Writer, AGB Benchmarking Service, data.agb.org

Platinum with 200 full-time faculty has almost twice as many full-time faculty as Silver's 104 full-time faculty; Gold is right in the middle with 156 full-time faculty. Silver is more dependent on part-time faculty than either of the other two schools but none of the schools is too dependent on part-time faculty; Platinum and Silver each have 13 full-time equivalent part-time faculty while Gold has only 7.

The student-to-faculty ratio at Platinum of 7.3 is half that of Silver while Gold has 10 students per faculty. One might expect that this significant difference in student to faculty ratio and number of faculty would result in major differences in the academic program but they do not in large part because of very significant differences in the teaching expectations for faculty. At Platinum, full-time faculty are expected to teach four courses a year compared with five a year at Gold and somewhere between seven and eight courses a year at Silver.

Faculty Numbers	Platinum (2010-11)	Gold (2009-10)	Silver (2010-11)
Student to Faculty Ratio	7.3	10.0	14.3
Total full-time faculty	200	156	104
Total part-time faculty	38	21	39
Total FT & PT faculty	238	177	143
Total Faculty FTE	213	163	117
PT FTE Faculty as % of FTE Faculty	6.1%	4.3%	11.1%

Source: IPEDS/ Report Writer, AGB Benchmarking Service, data.agb.org

There are other differences in support provided to faculty at the three colleges. At Platinum, each faculty is provided with the funds for at least one professional development trip a year and often two while at Gold, faculty are allocated \$1500 a year for professional development which they can accrue up to \$4,000. At Silver, funding for professional development is limited and rationed among faculty.

Academic Programs

Platinum has 44 departments compared with 31 at Gold and 17 at Silver. The three colleges all have the following 16 academic programs in common although some are in combined departments at Silver:

Art	Music
Biology	Philosophy
Chemistry	Physics
Economics	Political Science
English	Psychology
Foreign Languages	Public Policy
History	Religious Studies
Mathematics	Sociology

These programs form the basic curriculum of all liberal arts colleges. Platinum and Gold have several different departments that teach various foreign languages while Silver includes all languages in one department as well as combining philosophy with religion and history with political science, each in single departments. Beyond these academic programs, Silver offers only two other programs which are not offered by either of the wealthier colleges: Education and Family and Consumer Sciences. On the other hand, Platinum and Gold offer many more programs and have a broader curriculum than Silver which they are able to do because of their much larger faculties. (See Appendix 1 for a full listing of academic programs)

In terms of introducing technology into the academic programs, all three colleges are moving slowly and debating its role in a liberal arts institution. Platinum has been working with the Open Learning Initiative out of Carnegie Mellon to add technology enhanced learning to some of its programs. This initiative has gained the most traction in the languages. At Gold, consideration is being given to partnering with an independent company to put some of its courses on-line. This would allow its students who go abroad to take Gold's courses while away as well as to give students experience taking on-line courses. Silver is working to encourage faculty to put some of their courses on-line or some parts of their courses.

Workload and Classes

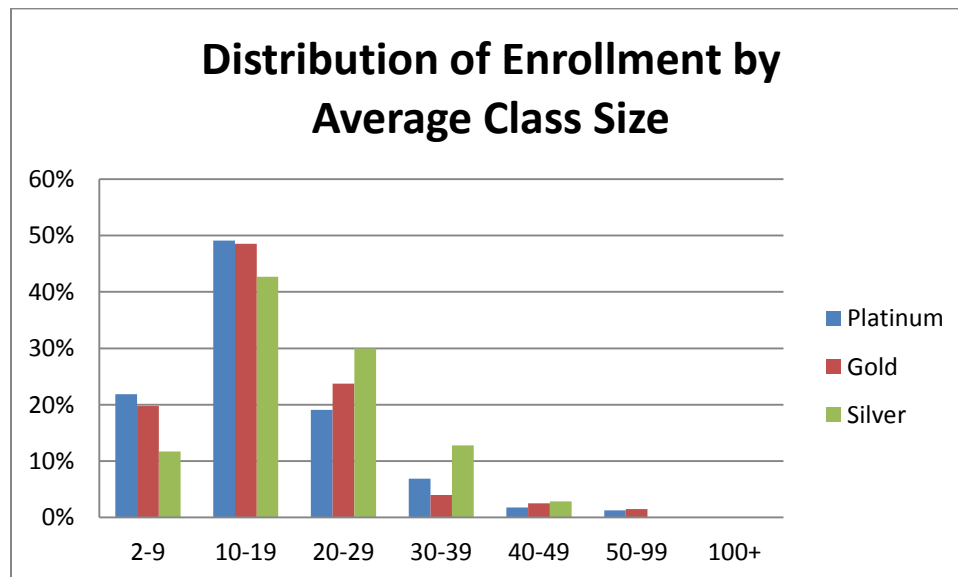
As noted above, the student faculty ratio differs significantly among the three colleges, from a high of 14.3:1 at Silver to a low of 7.3 at Platinum, yet the number of classes offered per term is surprisingly similar with a high of 400 at Platinum and a low 384 at Silver College, a difference of only 16 classes. This of course is attributable to the very different course loads for faculty at the three colleges. Beyond the number of courses taught per term, both Platinum and Silver indicate teaching a significant number of class sub-sections. These are usually labs or extra recitation sessions while Gold does not report any class sub-sections.

Number of Classes Taught in Fall term by Average Class Size	Platinum	Gold	Silver
Class sections: 2-9 Students	86	79	45

10-19	193	194	164
20-29	75	95	115
30-39	27	16	49
40-49	7	10	11
50-99	5	6	0
100+	0	0	0
Total class sections	393	400	384
Total class sub-sections	99	0	79

Source: CDS data

None of the three colleges has large classes. There are no classes with 100 or more students and fewer than 5% of the classes at the three colleges have classes of 40 or more students. Silver has a higher percent of its classes with enrollments between 20 and 39 students but it still has more than 50% of its classes with fewer than 20 students while Gold has 68% of its classes with fewer than 20 students and Platinum has 71% of its classes with low enrollments.



Beyond the regular curriculum, most schools offer special academic programs and study options. (See table below) All three colleges provide their students with opportunities in most of these areas; resources do not seem to make a significant difference in the availability of these offerings but there are significant differences in the ways that they are offered. For example, Platinum provides 50 study abroad options where it provides a mentor/advisor at each site for its students. Gold operates three study abroad programs and Silver's students participate in study abroad programs operated entirely by other institutions. Platinum provides this level of support as the Provost noted so that the college is

always there to support its students while the students at the other schools will have to depend on others for their support and may have to fend for themselves a bit more.

Special Study Options	Platinum	Gold	Silver
Accelerated program		X	
Cooperative education program			
Cross-registration	X		
Distance learning			
Double major	X	X	X
Dual enrollment			
English as a Second Language			
Exchange student program (domestic)	X	X	
External degree program			
Honors Program		X	X
Independent study	X	X	X
Internships	X		X
Liberal arts/career combination		X	X
Student-designed major	X	X	
Study abroad	X	X	X
Teacher certification program			X
Weekend college			
Other	X	X	X

Source: CDS data

Thus, despite the vast differences in resources among the three schools, the number of courses taught in any one term, the average class size, the special study options and the academic curriculum are surprisingly similar.

Co-curricular Activities - Academic Support and Student Services

Co-curricular activities are usually supported by the Academic Support and Student Services budgets. These two areas are grouped together as there is not a clear delineation of which activities should be attributed to which expense program and thus the same activity may be charged to academic support at one institution while another institution will charge it to student services. Platinum and Gold Colleges spend similar amounts per student on these two areas while Silver spends only 50% of what Gold spends per student on these activities. All three colleges would put a priority on increasing spending and programming in their career services program as they find more of their students and their students parents concerned with employment outcomes.

Expenditures per FTES on Academic and Student Support Services	
Platinum	\$17,835
Gold	\$15,761
Silver	\$7,930

Source: IPEDS/ Report Writer, AGB Benchmarking Service, data.agb.org 2008 - 09

The Common Data Set lists more than 20 co-curricular activities (See Appendix 2) All three colleges offer fifteen of the activities which include dance, choral groups, bands theatre groups, literary magazines, student government, student newspapers, etc. None of the campuses has a marching band or ROTC. Only Gold has an opera and only Platinum has a television station. Only Platinum and Gold have Symphony Orchestras, Model UN and student run film societies but all three campuses offer the other fifteen listed activities. When you talk with students at the three campuses, significant differences in the way the activities are supported become apparent. “We have to spend a lot of our time raising money in order to be able to have our club activities” noted a student at Silver while a student at Platinum explained “we decide what we want to do and tell the administration what it will cost and they give us the resources.”, Another Platinum student explained that “if students want to put on a theatre production, they only need to ask for the necessary funds for settings, costumes, etc. as well as the funds for transportation and tickets to see productions at other venues.”

Athletics

All three institutions are part of the National Collegiate Athletic Association Division III in sports and have virtually identical numbers of teams. Currently, Platinum supports 21 teams, while Gold and Silver each support 20 teams and Silver is adding two additional teams in the next two years so it will have 22 teams. Per NCAA Division III regulations, none of them provide any athletic scholarships. Despite the fact that the three schools all have very similar athletic programs, there are significant differences in the facilities that they have for the sports, the number of full-time coaches that they have, the salaries of the coaches as well as the resources for travel, equipment, uniforms, training, etc. Yet, student athletes on each of these campuses have the opportunity to participate in all of these sports and to compete against other schools in their conference. Further, no correlation was found between resources allocated to athletics and won/loss records.

Athletic Teams	Platinum	Gold	Silver
Baseball	X	X	X
Basketball	X	X	X
Cross Country	X	X	X
Equestrian			X
Football	X	X	X
Golf	X	X	X
Lacrosse		X	X (2013)
Soccer	X	X	X
Swimming and Diving	X	X	
Tennis	X	X	X
Track & Field	X	X	X
Water Polo	X		
Women's Sports			
Basketball	X	X	X
Cross Country	X	X	X

Equestrian			X
Field Hockey		X	X
Golf	X		X (2012)
Lacrosse	X	X	X
Soccer	X	X	X
Softball	X	X	X
Swimming and Diving	X	X	X - SWIMMING
Tennis	X	X	X
Track & Field	X	X	X
Volleyball	X	X	X
Water Polo	X		

Source: College web sites

Facilities

Another critical difference among the three colleges is the amount of facilities that they have and the condition of the space. Gold College has the most space and land. Platinum has somewhat less space and land but it is part of a consortium so it has several shared facilities which do not show up on its space inventory; these shared facilities provide its students with a range of choices that the other two colleges do not offer. For example, Platinum’s students can eat in all the dining facilities of the consortia institutions while both Gold and Silver offer only one main dining hall and a few other eating venues. Platinum is also in an urban area which clearly accounts for the smaller amount of land as compared with the two rural schools. Silver has significantly less space than the other two colleges but it still has more than 600 gross square feet of space per student. The additional space at Platinum and Gold provide more dedicated classrooms, more laboratory space for faculty, much more in terms of commons space, theatre space, etc. Also, as previously mentioned, both Platinum and Gold have operating museums which are large and are part of their facilities inventory.

There is no systematic survey of the condition of space at all three institutions. By looking at the space, Silver has many older facilities which are in need of renovation as compared with the other two institutions. Also, there are differences in the technology in the facilities. For example, at Platinum all of the classrooms are “smart.” This is not the case at the other two institutions where this level of upgrading has not yet taken place. Finally, there are facilities which are not handicapped accessible at Silver and the funds are not available to make the needed modifications.

Space and Land	Platinum	Gold	Silver
Gross Square Feet of Space	1,300,000	1,500,000	970,000
Acres of Land Maintained	140	200	260

Source: Institutional data

Degrees Awarded

Looking at the areas in which degrees are awarded, we see that there are ten programs in which all three colleges awarded degrees last year. These ten programs (the first ten listed on the table below) accounted for 81% of all degrees awarded by Platinum, 99% of all the degrees awarded by Gold and 42% of the degrees awarded by Silver. Silver offers degrees in more career-oriented fields than the other two

colleges. Almost 40% of Silver’s students received degrees in three areas in which the other two colleges do not award any degrees: Business and Marketing, Family and Consumer Sciences, and Parks and Recreation, more career oriented programs. As the chief academic officer at Silver commented, “we are a liberal arts college for the non-elites, practical liberal arts.”

Degrees Awarded by Area	Platinum	Gold	Silver
Social sciences	25.70%	28.89%	7.58%
Biological/life sciences	15.10%	8.82%	9.04%
Mathematics and statistics	6.90%	4.01%	1.46%
English	6.70%	16.67%	4.37%
Physical sciences	6.20%	2.53%	1.75%
Visual and performing arts	4.90%	10.55%	3.21%
Philosophy and religious studies	4.40%	4.22%	1.75%
Foreign languages, literatures, and linguistics	3.20%	8.86%	1.17%
History	2.70%	5.70%	4.96%
Psychology	5.40%	8.44%	6.71%
Natural resources and conservation	5.40%		2.04%
Computer and information sciences	1.50%		0.29%
Parks and recreation			13.12%
Health professions and related programs			0.58%
Business/marketing			17.20%
Communication/journalism	3.20%		8.16%
Area, ethnic, and gender studies	4.20%		
Interdisciplinary studies	2.20%		
Public administration and social services	2.20%		
Family and consumer sciences			8.45%
Liberal arts/general studies			8.16%
Other		1.85%	

Source: CDS data

Enrollment and Student Characteristics

The freshman class at the three colleges ranges in size from around 400 to just under 500 and the total undergraduate population ranges from 1550 students to 1650. None of the schools have any graduate or first professional students. Men make up between 41% and 49% of the students at the colleges. The schools do differ in terms of their diversity. More than 80% of Gold’s student body comes from out-of-state compared with 68% at Platinum and 21% at Silver. Gold and Silver report populations that are 79% and 81% white respectively while Platinum reports only 45% of its students are white. Less than 5% of the students at all three institutions are nonresident aliens.

Enrollment	Platinum	Gold	Silver
Degree-seeking, first-time freshmen	401	483	471
Total undergraduates	1560	1632	1648
% Men	49%	46%	41%
% out-of-state	68%	84%	21%
% Nonresident aliens	5%	4%	0%
% Hispanic	12%	4%	3%

% or African American	7%	4%	8%
% White	45%	79%	81%
% American Indian or Alaska Native	0%	1%	0%
% Asian	11%	6%	1%
% Hawaiian or other Pacific Islander	0%	0%	0%
% Two or more races	5%	0%	3%
% Race and/or ethnicity unknown	15%	3%	4%

Source: Common Data Set – 2010-11 Data for Gold and Silver and 2009-10 for Platinum also institutional data

Admission Data and Academic Characteristics of Incoming Students

There are significant differences among the three colleges in terms of their selectivity. Platinum is the most selective of the three institutions. Platinum and Gold have early decision programs and 29% and 37% of the freshman classes respectively came via their early decision programs. Platinum accepted only 15% of its applicants compared with 39% at Gold and 54% at Silver. Among those accepted, 40% chose to attend Platinum, 30% Gold and only 19% at Silver.

None of the schools enroll many transfer students; the normal route into all three of these schools is as freshmen. In the last year for which data was available, Platinum accepted only 6% of the transfer students who applied and none enrolled while Gold accepted 4% of the transfer applications and 63% or a total of five students enrolled. The story is a little different at Silver which accepted 38% of the transfer applicants and 43% of those who were accepted enrolled for a total of 41 transfer students.

Admissions Data	Platinum	Gold	Silver
% Freshman Accepted	15%	39%	54%
% of Accepted who Enroll - Yield	40%	30%	19%
% of Class Accepted Early Decision	29%	37%	N/A
% Transfers Accepted	6%	4%	38%
% of Accepted who Enroll - Yield	0%	63%	43%
Number of Transfers who Enroll	0	5	41

Source: CDS data

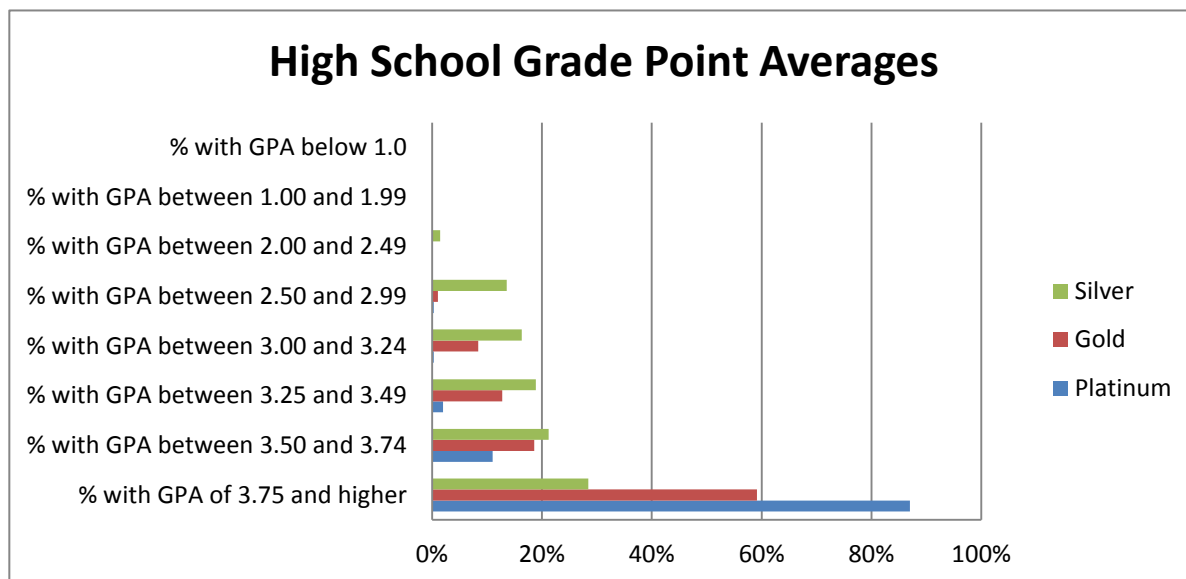
In terms of the academic ability of the entering students, Platinum attracts the most talented students followed closely by Gold with Silver a distant third based on SAT scores. More than 70% of all students at the three schools present SAT scores. The 75th percentile at Silver on any of the three tests is still more than 50 points below the 25th percentile at Gold and more than 100 points below the 25th percentile at Platinum. This is an area of significant difference between Silver and the other two schools.

SAT Data	Platinum	Gold	Silver
SAT Critical Reading - 25th percentile	680	640	450
SAT Critical Reading - 75th percentile	780	740	570
SAT Math- 25th percentile	700	610	470

SAT Math- 75th percentile	780	690	560
SAT Writing - 25th percentile	690	630	450
SAT Writing - 75th percentile	770	730	540

Source: CDS data

In terms of H.S. Grade Point Average (GPA), the average GPA's range from 4.18 at Platinum to 3.84 at Gold to 3.48 at Silver. The averages represent a smaller difference than that represented by SAT scores. When looking at the distribution of GPA's, we see that the major difference is among those students with GPA's of 3.75 and higher. Almost 90% of the students at Platinum had high school GPA's of 3.75 or higher while 60% of the class at Gold had GPA's at this level and only slightly more than a quarter of the class at Silver. Platinum takes almost no students with GPAs of less than 3.25 while Gold takes almost no students with GPA's of less than 2.5 while the cut-off at Silver is at 2.0.



Source: Platinum data from the institution; Gold and Silver CDS data

Outcomes: Retention and Graduation Rates

There are significant differences in the retention and graduation rates between Silver and the other two colleges. As we know, the academic ability level of the students entering Silver is much lower as measured by SAT scores than that at the other two schools and the retention and graduation rates are also much lower. This data does not mean that the students who do not graduate from Silver are drop-outs but may in fact transfer to other schools. Unfortunately, the databases are not robust enough to know what happens to the students from any of the schools who do not persist at the institution at which they started. Beyond differences in ability levels of students on entrance, the much lower yield of accepted applicants indicates that Silver is less likely to be a first choice school of many students. That said, freshman to sophomore year retention rates were highest at Platinum at 97%, 92% at Gold, and lowest at Silver at 70%.

Platinum, the best-endowed institution and the college with the highest SAT scores and yield rate of entering students has a four year graduation rate of 90% and a six year graduation rate of 94% while Gold has a four year graduation rate of 85% and a six year rate of 86%. Silver graduated 53% of its freshmen in four years and 64% in six years, more than 25 percentage points behind Platinum which has one of the best graduation rates in the country.

Graduation and Retention Rates	Platinum	Gold	Silver
Bachelor's Degrees Awarded	375	432	324
Six-year graduation rate	94%	86%	64%
Four-year graduation rate	90%	85%	53%
2010 class retention to 2011	97%	92%	70%

Source: Row 1: CDS data; other rows: Report Writer, AGB Benchmarking Service, data.agb.org

Financial Aid

The socioeconomic status of the students at the three schools differs significantly. Using Pell grant recipients as a proxy for low income students, Silver has the highest percentage of low income students with almost 30% of its student body receiving Pell grants. Seventeen percent of the students at Platinum receive Pell grants while only 12% of the students at Gold are low income. Many students beyond those who receive Pell grants have financial need at these schools. Financial need is calculated using standardized forms which relate the amount that the student and her family can contribute to the cost of attendance at the college. At Silver, which has the lowest tuition among the three schools, 80% of the students have need compared with 54% at Platinum and 43% at Gold. Significant differences among the three schools relate to the resources that they devote to financial aid and to the way in which they award aid.

Low Income Students	Platinum	Gold	Silver
Percent with financial need	54%	43%	80%
Percent receiving Pell Grant	17%	12%	30%

Source: CDS data

Platinum is far better able to provide aid to its students than the other two schools. Platinum provides only need-based aid and meets all of the unmet need of its students while Gold aids all of its students with need but is not able to meet its students unmet need with as generous grant aid as Platinum. Silver also provides aid for all of its needy students but is only able to meet a portion of the students' need with institutional grant funds. Both Gold and Platinum provide merit-based aid. Gold only provides merit-based aid to 10% of its students while more than three quarters of Silver's students receive merit-based aid. Merit based aid is provided by Gold and Silver to encourage high ability students to attend the institution; many of these students are likely to choose a different institution without the merit award. Almost all students at Silver receive aid because Silver finds it necessary to provide aid to these students to get them to enroll. Most of those students attending Silver who are able to pay the full price of tuition are unwilling to attend without a discount. They do not see the value proposition of the school

at the published price. As Gold and Silver are not able to meet the full need of their students with grant aid, there are significantly higher percentages of their students who take loans than at Platinum. Although Silver has the poorest students, 78% of their freshmen class took loans in order to be able to attend and their average loan was more than \$7,000 compared with only 14% of the students at Platinum and an average loan amount of less than \$5,000. At Gold College, 56% of the freshmen class took at loans and the average loan was \$4,005.

Financial Aid Data	Platinum	Gold	Silver
% of freshman class receiving inst. aid	52%	52%	95%
Average amount of institutional grant aid	\$31,171	\$23,979	\$13,671
% of freshman class receiving loans	14%	56%	78%
Average amount of student loan aid	\$4,925	\$4,005	\$7,457
% of need met	100%	98%	77%

Source: Report Writer, AGB Benchmarking Service, data.agb.org

Although the three institutions have very different levels of resources, the amount of financial aid received by the students at the three institutions from all sources of funds is quite similar: \$28 million at Platinum, \$22 million at Gold and \$24 million at Silver. The amount of aid provided by the institutions differs more significantly with Platinum providing \$25 million in aid followed by Gold with \$21 million and Silver with \$18.5 million in aid. The amount of institutional aid provided by Silver is much more significant relative to its tuition level and the overall level of resources that the institution has compared with the other two institutions.

Financial Aid	Platinum	Gold	Silver
Pell grants	\$1,121,041	\$608,952	\$1,654,324
Other federal Grants	\$592,076	\$331,068	\$447,085
State grants	\$807,564	\$153,691	\$3,629,370
Local grants	\$0	\$384,872	\$0
Institutional grants (funded)	\$14,433,000	\$4,117,583	\$1,989,962
Institutional grants (unfunded)	\$11,051,000	\$16,916,246	\$16,603,891
Total Student Aid	\$28,004,681	\$22,512,412	\$24,324,632

Source: CDS data

The percent of the student body and the cumulative amount of debt that the students acquire varies by the wealth of the school. At Platinum, 47% of the students borrow compared with 60% at Gold and 76% at Silver. Students will often borrow to meet the contribution that is expected from them and their family as well as to meet the need that is not funded by the institution as well as to provide additional resources beyond that calculated as being required. The average cumulative debt that students have is more than three times higher at Silver than at Platinum - \$33,986 versus \$10,592 with the debt level at Gold falling in between these two schools at \$20,492. The Federal government allows students with need to borrow from its programs; when there is no need or federal maximums are reached, students and their families often move to the private loan market which usually offers loans at floating rates with less advantageous terms than the federal programs.

Debt	Platinum	Gold	Silver
% of class who borrowed at any time	47%	60%	76%
% of class who borrowed through federal loan programs	29%	56%	74%
Average cumulative undergraduate debt from all loan programs	\$10,592	\$20,492	\$33,986
Average cumulative undergraduate debt from Federal loan programs	\$7,036	\$15,976	\$27,260

Source: CDS data

Tuition and Fees and Tuition Discount Rate

The tuition and fees between the two more affluent schools are quite similar with Gold actually having a higher tuition than Platinum. The tuition and fees at Silver are more than 35% less than at the other two schools. On the other hand, room and board at Silver is slightly higher than at Gold and the room and board charges at Platinum are more than 25% greater than at the other two colleges. Gold and Silver are both in rural areas which in large part accounts for the lower room and board charge as compared with Platinum which is in a high cost suburban/urban area. Thus the total charges at Silver are 30% less than those at the other two institutions.

Student Charges	Platinum	Gold	Silver
Tuition	\$39,762	\$41,090	\$26,200
Mandatory Fees	\$311	\$1,540	\$300
Room and Board	\$13,227	\$10,020	\$10,350
Total	\$53,300	\$52,650	\$36,850

Source: CDS Data

The tuition discount rate from institutional financial aid varies significantly among the institutions. Silver, which has the most economically disadvantaged student body and the fewest resources, has the highest discount rate among the three colleges with a discount rate of 48% while Platinum is close behind with a 45% discount rate. Gold has only a 30% discount rate. Both Gold and Platinum allocate some of their financial aid based on merit and other student characteristics while Platinum awards all of its institutional aid based on financial need. Gold and Silver use merit based aid to increase the number of higher ability students who choose to attend their college. As Platinum is a first choice school of many more of its applicants than the other two schools, it does not need to award any of its aid based on merit. Students who can afford to pay the price at Platinum are willing to come at the published price while few students who can afford the published price at Silver are willing to pay the price thus a discount is required to persuade them to attend.

Tuition Discount Rate	Platinum	Gold	Silver
Tuition Discount Rate	45%	30%	48%
Net Tuition per student	\$21,869	\$28,763	\$13,624

Source: Report Writer, AGB Benchmarking Service, data.agb.org

Outcomes: NSSE Data

Gold and Silver each administered the National Survey of Student Engagement (NSSE) to their freshmen and senior classes. The most recent data for Gold is from 2008 while Silver administered the survey in 2011. Platinum uses a similar survey called the Enrolled Student Survey (ESS) which it administered in 2011. ESS is given to all students and the response rate is quite high while NSSE is given only to a sample of freshmen and seniors. The questions, while similar, are different enough that there are only a few places where direct comparisons can be made between the two surveys; where these exist, the data is shown. Data from the ESS has been included where relevant although the scale is different. For the NSSE survey, the percent of students who responded to the question is shown while for the ESS survey, the average rating where 1=poor and 4=excellent is displayed.

Given the significant difference in the entering ability/preparedness levels of the students at Silver as compared with Gold and Platinum and given the significant difference in resources, it will be instructive to compare the different expectations of students at the various schools and their different learning experiences.

In terms of academic challenge, 90% or more of the first year students at both Gold and Silver find that their institutions place substantial emphasis on academics and more than 60% of the students at both schools feel that they are held to high standards by their faculty. On the other hand, students at Silver spend significantly less time on homework each week compared with students at Gold. Much more emphasis is placed on memorizing facts while much less is placed on analyzing, synthesizing, and applying theories at Silver as compared with Gold. Both schools place a similar emphasis on making judgments about the value of the information.

Surprisingly, Silver is more writing intensive for freshmen than Gold. At Silver, 18% of the freshmen wrote more than ten papers between 5 and 19 pages and 42% have written a paper which is 20 pages or longer. By comparison at Gold, 21% wrote papers between 5 and 19 pages while only 13% wrote a paper that was more than 20 pages and only 10% at Platinum. At Gold 85% of the students read ten or more books or course packs compared with 51% at Silver.

Academic Challenge	Platinum	Gold	Silver
To what degree is studying and spending time on academic work emphasized?			
% of FY students feel that this institution places substantial emphasis on academics		94%	90%
Do faculty hold students to high standards?			
% of FY students frequently work harder than they thought they could to meet faculty expectations		66%	61%
How much time do students spend on homework each week?			
% of FY students spend more than 15 hours per week preparing for class.		66%	41%
% spend 5 hours or less.		1%	12%
What types of thinking do assignments require?			

First-year students report substantial emphasis on the following activities:			
Memorizing facts, ideas, or methods:		49%	69%
Analyzing basic elements of an idea or theory:		95%	79%
Synthesizing and organizing ideas:		86%	70%
Making judgments about value of information:		79%	72%
Applying theories or concepts:		81%	68%
How much writing is expected?			
% of FY students write more than 10 papers between 5 and 19 pages		21%	18%
% have written a paper more than 20 pages in length.	10%	13%	42%
How much reading is expected during the school year?			
% of FY students read more than 10 assigned books and packs of course readings. .		85%	51%
% read fewer than 5		3%	9%
Do exams require students to do their best work?			
% of FY students report that their exams strongly challenge them to do their best work		63%	50%

The second part of the NSSE survey examines “Active Learning.” Significantly more freshmen at Gold than Silver discuss readings or ideas from their classes outside of class while about the same percent of students at both schools work together with their peers in class (54% and 55%) compared with 89% at Platinum. Significantly more freshmen at Silver report making class presentations as compared with Gold – 49% vs. 17%. By their senior year, more than half the students at all three schools have participated in internships or off-campus field experiences. Almost a third of seniors at Gold and Silver have tutored or taught their fellow students.

Active Learning	Platinum	Gold	Silver
How often are topics from class discussed outside of the classroom?			
% of FY students frequently discuss readings or ideas from coursework outside of class		79%	60%
Do students work together on projects – inside and outside of class?			
% of FY students frequently work with other students on projects in class,		27%	45%
% of FY students who work with peers on assignments outside of class	89%	54%	55%
How often do students make class presentations?			
% of FY students report that they make frequent presentations in class		17%	49%
How many students participate in community-based projects in regular courses?			
% of FY students frequently participate in service-learning or community-based projects during a given year.		4%	34%
% of FY who never took part in such activities.		3%	11%
How many students apply their classroom learning to real life			

through internships or off-campus field experiences?			
By their senior year, X% of students have participated in some form of practicum, internship, field experience, co-op, or clinical assignment.	69%	57%	61%
Do students have opportunities to tutor or teach other students?			
% of seniors frequently assist their fellow students by tutoring or teaching them		32%	29%

As mentioned previously, faculty members at Silver have a significantly higher teaching load than those at the other two institutions. This may account for the significant differences in responses to the question by freshmen on the accessibility and supportiveness of their faculty. At Gold, 75% of the students report that their faculty are accessible and supportive compared with only 54% at Silver. More than 80% of the freshmen at Gold report receiving prompt feed-back from their faculty compared with 66% at Silver. These are two variables which might have some influence on the lower retention rate of students at Silver.

One area which separates Platinum from the other two institutions is the percent of seniors who have done research with a faculty member by senior year. At Platinum, 47% of the seniors have worked with a faculty on research compared with 32% at Gold and 24% at Silver. It actually is quite surprising how high the numbers are at Silver given the faculty teaching load and the lack of institutional resources allocated to research. The numbers of students at Gold and Silver who report discussing career plans with faculty and spending time with faculty on activities other than coursework are amazingly similar at 90% or more at both schools. More than 50% of the students at both schools work outside of class with faculty on activities other than coursework.

Student-Faculty Interaction	Platinum	Gold	Silver
Are faculty members accessible and supportive?			
% of FY students say their faculty are available, helpful and sympathetic.		75%	54%
How many students work on research projects with faculty?			
By their senior year, X% of students have done research with a faculty member.	47%	32%	24%
Do students receive prompt feedback on academic performance?			
% of FY students indicate that they frequently get prompt verbal or written feedback from faculty members		81%	66%
How often do students talk with advisors or faculty members about their career plans?			
% of seniors at least occasionally discuss career plans with faculty.		90%	94%
% never talk with faculty members about career plans.		4%	5%
Do students and faculty members work together on committees and projects outside of course work?			
% of FY students at least occasionally spend time with faculty members on activities other than coursework		52%	57%

Curricular experiences differ between Gold and Silver. A small number of freshmen participate in learning communities but more at Silver than at Gold. By senior year, a third of the class at Gold has taken an independent study class compared with only 19% at Silver. Students at Gold are much more likely than those at Silver to have conversations with students from different religious backgrounds and races than students at Silver which is consistent with the greater diversity of the student body. More than half the students at Platinum and Gold have studied abroad by their senior year compared with only 19% at Silver. This may in part be attributable to the lower socio-economic background of the students at Silver as compared with the other two colleges. On the other hand, a higher percentage of the students at Silver participate in community service by senior year as compared with Gold; 90% versus 80%.

Enriching Educational Experiences	Platinum	Gold	Silver
What types of honors courses, learning communities, and other distinctive programs are offered?			
During their first year, x% of students participate in a learning community.		3%	12%
By their senior year, x% of students have taken an independent study class.		33%	19%
How often do students interact with peers with different social, political, or religious views?			
X% of FY students say they frequently have serious conversations with students who are different from themselves in terms of their religious, political, or personal beliefs.		74%	53%
How often do students interact with peers from different racial or ethnic backgrounds?			
X% of FY students frequently have serious conversations with those of a different race		73%	54%
How many students study in other countries?			
By their senior year, X% of students have studied abroad.	54%	56%	19%
Do students participate in activities that enhance their spirituality?			
X% of FY students frequently engage in spiritually enhancing activities such as worship, meditation, or prayer		18%	27%
What percentage of students participate in community service?			
By the time they are seniors, X% of students have participated in community service or volunteer work.		80%	90%

In terms of the satisfaction with their overall educational experience, a slightly larger percent at Gold are satisfied and would choose this school again than at Silver; yet 77% of the students at Silver would choose this school again compared with 85% at Gold. Far more students spend significant amounts of time on extra-curricular activities at Gold than at Silver where 20% of the first year students spend no

time on co-curricular activities compared with only 6% at Gold. Fifteen percent of the students at Silver live off campus compared with only 2% at Gold; this may also have an impact on time spent on co-curricular activities as off-campus students tend to participate less in co-curricular activities. In addition, students at Silver have to devote much of the time for the co-curricular activities to raising funds for the activity rather than “doing the activities” which is probably less compelling. Finally, students at Silver also are working more as they need more money to help pay for college than those at Gold who are wealthier. [Provide details about this and data in tables. This is significant.] Similar numbers of students at both institutions believe that their institutions are committed to their academic success. A smaller but similar percent at both institutions find that the institutions support their social needs well but this is still less than 65% of the students at both institutions.

Supportive Campus Environment	Platinum	Gold	Silver
How well do students get along with other students?			
% of FY students report that their peers are friendly, supportive, and help them feel as if they belong.		77%	62%
Are students satisfied with their overall educational experience?			
% of FY students report a favorable image of this institution;		98%	86%
% of seniors would choose this school again if they could start their college career over.		85%	77%
How much time do students devote to co-curricular activities?			
% of FY students spend more than 15 hours a week participating in co-curricular activities.		30%	12%
% of FY students spend no time participating in co-curricular activities.		6%	20%
How well do students get along with administrators and staff?			
% of FY students find the administrative personnel and offices helpful, considerate, and flexible.		32%	37%
To what extent does the school help students deal with their academic and social needs?			
% of FY students feel that this institution has a substantial commitment to their academic success.		92%	86%
% of FY who feel well-supported by the institution regarding their social needs.		64%	58%

Resources and Revenues

The total resources that the three colleges have are significantly different. Platinum has an endowment of more than \$1.5 billion while Gold’s endowment is around \$150 million and Silver has an endowment of about \$50 million. Annual revenues also differ significantly among the three institutions: Platinum has more than \$140 million in revenue compared with almost \$100 million at Gold and \$39 million at Silver.

While Silver is almost entirely dependent on student revenues (net tuition and mandatory fees plus auxiliary enterprise revenue) receiving 88% of its total revenues from students, Gold gets 64% of its revenue from students and Platinum gets only 35% from students. Almost half of Platinum’s operating revenues come from investment return which is attributable to its very large endowment. Gold gets 22% of its operating resources from investment returns while only 7% of Silver’s revenue comes from investment returns. The percent of operating revenues from private gifts and grants is highly correlated with the wealth of the institution. Platinum receives more than \$28 million from private gifts and grants compared with almost \$9 million at Gold and less than a million dollars at Silver. Platinum has a much longer tradition of alumni giving than and a higher percent of its alums give than at the other two schools. It may also have a wealthier alumni body although there is no data to substantiate that.

Percent of Total Revenue	Platinum	Gold	Silver
Net Tuition and Mandatory Fees	23%	43%	51%
Auxiliary Enterprise Revenue	12%	21%	37%
Investment Return for Operations	44%	22%	7%
Private Gifts and Grants	19%	9%	3%
Government Grants	2%	1%	1%
Other Income	1%	3%	2%
Total	100%	100%	100%

Source: Institutional Audits

Concluding Thoughts

This case study has shown that schools operating with very different levels of resources can offer students a similar market basket of goods in terms of curricular and co-curricular activities. There may be fewer frills and less faculty and staff support at the school with fewer resources but students still have similar opportunities to explore different subjects, enter into discussion with faculty and peers and try a variety of activities. Administrators at the wealthier schools reflected that they may be too protective and paternalistic towards their students while the students at Silver have to fend for themselves more often.

In order to increase access to higher education, we will need more schools which operate at the lower end of the cost curve. The price of college will not be able to be contained and even decreased unless there are more schools operating at lower cost. These case studies have shown that the residential liberal arts experience can be offered at relatively low cost. There is potential for reducing costs at all three institutions through increased use of technology and better utilization of their campuses especially in the summer.

These case studies were performed at schools with only one campus and only undergraduate students in order to see if valid comparisons could be made. This methodology should be expanded to more complex schools to understand how they are financed and what they offer to students at various levels of resources. This will include schools with graduate as well as undergraduate populations, schools with satellite campuses and schools with on-line as well as on the ground operations. When applied to more

complex schools with multiple student populations and multiple delivery systems, it will be imperative to understand the cross subsidization that occurs.

Acknowledgements

The author wishes to thank the Lumina Foundation for supporting this project. She is indebted to the three colleges that opened their doors to her, let her roam their campuses, meet with a variety of people on campus and provided her with information and data. She also wishes to thank Phil Tahey who reviewed the audit data and made some adjustments in them and several colleagues who read drafts of the paper and offered comments. She also wishes to thank Merrill Schwartz who carefully reviewed the document and made many suggestions and the Association for Governing Boards for providing their benchmark tool for use in this study. Finally, she wishes to thank her husband who edited many drafts of this paper and generously gave suggestions.

Appendix I

Academic Programs

Platinum	Gold	Silver
Africana Studies	African Diaspora Studies	
American Studies	American Studies	
Anthropology	Anthropology	
Art & Art History	Art	Art
	Art History	
Asian American Studies		
Asian Languages & Literatures		
Asian Studies	Asian Studies	
Astronomy		
	Biochemistry	
Biology	Biology	Biology
Chemistry	Chemistry	Chemistry
Chicana/o - Latina/o Studies		
Classics	Classics	
Computer-Science		
Dance	Dance, Drama, and Film	
Economics	Economics	Econ. & Business Administration
		Education
English	English	English
Environmental Analysis	Environmental Studies	
		Family and Consumer Sciences
		Foreign Languages

Gender and Women's Studies	Women's and Gender Studies	
Geology		
German Language, Lit. & Culture		
Health Sciences Program		Health and Exercise Science
History	History	History and Political Science
International Relations	International Studies	
	Islamic Civilization and Cultures	
Latin American Studies		
	Law and Society	
Linguistics & Cognitive Science		
Mathematics	Mathematics	Math and Computer Science
Media Studies		
	Modern Languages and Literature	
Molecular Biology	Molecular Biology	
Music	Music	Music
Neuroscience	Neuroscience	
Philosophy	Philosophy	Philosophy and Religion
Philosophy Politics and Economics		
Physical Education		
Physics	Physics	Physics
Politics	Political Science	
Psychology	Psychology	Psychology
Public Policy Analysis	Public Policy	
Religious Studies	Religious Studies	
Romance Languages and Literatures		
Russian		
Science Technology Society	Scientific Computing	
Sociology	Sociology	Sociology
Theatre		Communication Studies and Theatre

Source: Academic Catalogues

Appendix II

Student Activities Offered	Platinum	Gold	Silver
Campus ministries	X	X	X
Choral groups	X	X	X
Concert band	X	X	X
Dance	X	X	X
Drama/theater	X	X	X
Jazz band	X	X	X
International student organization	X	X	X
Literary magazine	X	X	X
Marching band			
Model UN	X	X	

Music ensembles	X	X	X
Musical theater	X	X	X
Opera		X	
Pep band	X	X	X
Radio station	X	X	X
Student government	X	X	X
Student newspaper	X	X	X
Student-run film society	X	X	
Symphony orchestra	X	X	
Television station	X		
Yearbook	X	X	X
ROTC			

Source: CDS data