Task Force on Academic Excellence and Engagement

Final Report

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The Task Force on Academic Excellence and Engagement (hereafter referred to as the 'TF') is charged with developing a white paper that puts forward a viable, integrated solution to the following:

A. Accreditation issues caused by the CEC;
B. Transfer credit issues related to our practice of accepting three credit courses as equivalents to 4-credit courses;
C. The revenue (or lack of revenue) issue created by the current work-load given to science faculty who teach labs;
D. The perceived inequities in current (and potentially future) teaching loads;
E. Scheduling and space issues created by one and two day a week classes;
F. Appropriateness of class scheduling for facilitation of student learning, particularly in 100 and 200 level courses;
G. The perception of low academic rigor and lack of flexibility within the curriculum;
H. The low level of academic engagement demonstrated by our students.

Approach to completion of tasks

The TF was formed in mid-October of 2014. The TF met for 1.5 hours each week, with extensive amounts of time outside of the meetings being required to undertake the research and perform the analyses of the data. The TF agreed to prioritize our meetings over other activities. In addition to the presentation of the TF recommendations on February 18, 2015, presentations of our progress were made to the FA in November 2014, December 2014, & January 2015. No released time was assigned for this project.

A list of data for our study was developed by the Data Collection Committee (June – September 2014) and collected by the Administration. Three members of the TF served on the Data Collection Committee (Kristin Kenneavy, Jason Hecht, and Eric Karlin). Additional data was gathered by the TF as needed. This included the President's Financial Sustainability Task Force presentation of January 2014. Throughout our deliberations, the TF sought feedback from our colleagues, unit council, and an informal survey of 179 students across all five schools. We also contacted colleagues at other institutions, including Stockton University (hereafter Stockton) and The College of New Jersey (hereafter TCNJ). We consider those two institutions to be of greatest relevance because they are New Jersey institutions of public higher education that rely on 4-credit courses.

The authors of the report represent the five schools of the college and are active members of the college community. We assembled a sound report based on an interdisciplinary and collective competence, with recommendations based on data. We had full and open discussions; all members fully participated. Consensus was reached on all recommendations. Our goal was to provide a report which reflected the best outcomes for the college community as a whole.

Task Force Members

Eric Karlin is Professor of Plant Ecology and joined the college in 1979. He is currently leading three collaborative research projects involving four colleagues across three universities. He has 1) served as Dean of TAS for six years (9/1999 – 8/2005); 2) served two years as the President of the Faculty Assembly (9/2006 – 8/2008), and 3) has been the chair of the organizing committee for Scholar's Day from its inception (in 2012/2013) to the present. He has the background and experience to explore the issues dealt with in this study from the perspectives of both the faculty and the Administration.

Jason Hecht is Professor of Finance and joined the college in 1998. He previously served on the FA Budget Committee (2011-2013) and FAEC (2006-2007).

Ruma Sen is Associate Professor of Communication Arts, specializing in Global Communication and Media. She has previously served as Co-Chair for the Diversity Action Committee and the International Education Committee along with serving as Contemporary Arts rep in many other all-college committees.

Lisa Cassidy is an Associate Professor of Philosophy, specializing in ethics, and has been at the College since 2002.

Kristin Kenneavy is an Associate Professor of Sociology and the Faculty Fellow for Civic Engagement. She has served as Faculty Assembly Secretary (2009-2011), Chair of the American Democracy Project (2013-2015), on the Diversity Action Committee (2013-2014), on the SSHS Assessment Committee (2012-2015), and has worked with the Women's Center for seven years on issues of interpersonal violence prevention. She is a member of the Middle States Periodic Review Report (PRR) Team headed by Vice Provost Eric Daffron. Dr. Kenneavy has been with Ramapo College since 2008.

Roark Atkinson is a historian of the early modern Atlantic world. He teaches courses on colonial North America, colonial Latin America, the American Revolution, historiography, and American religious history. He serves on FAEC and AFT, and is convener of the Latino/a and Latin American Studies program. He has been at the college since 2008.

Rebecca Root is Associate Professor of Political Science and International Studies, co-founded the minor in Human Rights & Genocide Studies, and has been with the college since 2009. She currently serves as the Vice President of the Faculty Assembly Executive Council and the convener of International Studies.

Executive Summary

Charge A. Accreditation issues caused by the CEC

Challenge: According to the Middle States Commission, the present curricular structure is not in compliance with accreditation standards. Currently students are awarded 4 credits for a class that is short of the contact time by 0.4 hours, necessitating curriculum enhancement (CEC). We find that that the accreditation issues are of paramount importance.

Recommendation: The TF recommends that Ramapo College should retain its 4-credit model, with faculty-student contact hours per week increasing to match the Carnegie model (50 minutes per credit per week, which is 200 minutes per week for a 4 credit course). This would replace the current CEP model and would bring the curricular structure at Ramapo College into compliance with Middle States accreditation standards. Based on our modeling, adopting a 4-credit model with faculty teaching six courses per year would be more cost efficient than moving to a 3-credit model with faculty teaching seven courses per year, with one course being assigned to released time.

Addendum: Although not part of our 'charge', the TF concludes that a 4-credit course model would be the optimum curricular model for both 120 and 128 credit graduation requirements.

Charge B. Transfer credit issues related to our practice of accepting 3-credit courses as equivalent to 4-credit courses

Challenge: Ramapo is part of the Comprehensive Statewide Transfer Agreement. In the College's current practice, transfer credits from institutions with 3-credit courses may be used to fulfill courses in their degree requirements as if the 3 credit course were equivalent to our 4-credit course.

Recommendation: The TF recommends that majors & minors require, in addition to specific courses, a minimum number of credits. Thus 3-credit transfer courses that fulfill course requirements would be deficient in credits. In such cases, students would need to take an additional elective (or electives) in the major/minor to fulfill the credit requirement.

This does not "solve" all the challenges associated with transfer equivalents (e.g. General Education courses), but the other challenges are linked to the Comprehensive Statewide Transfer Agreement and outside of the control of the College.

Charge C. The revenue (or lack of revenue) issue created by the current work-load given to science faculty who teach labs

There are two dimensions to this charge:

1. Teaching Credit hours (TCHs) for faculty teaching labs
2. Student Credit hours (SCHs) assigned to labs

Challenge: At Ramapo College, lecture/lab courses have a full lecture component plus a lab component which meets once each week for 195 minutes. Under CEP and the Interim Curriculum Model, however, students are charged tuition for just 4 SCHs. Thus only a portion of the TCHs associated with each lecture/lab are covered by tuition.

Recommendations:

Dimension 1. The TF recommends that faculty compensation for teaching labs should be equivalent to that paid for teaching lectures (i.e. 1 TCH per hour of class meeting time per week). The TF concludes that teaching science laboratories at Ramapo College unequivocally requires at least as much 'work' as teaching lectures.

> *It is not ethical to reduce faculty compensation in order to help defray the cost of 'phantom credits' that are associated with students being charged no tuition (or reduced tuition) for the lab component of a lecture/lab course.*
>
> The faculty of TAS have one of the highest student loads in the College (see Table D1 [p. 26], Figure D3 (p. 28], and Figure D4 [p. 29]). Adopting the 2/3 TCH per hour of class meeting per week for teaching labs (or any compensation less than 1 TCH per hour of class meeting per week) would significantly increase an already heavy teaching load for full time faculty teaching labs, both in terms of the number of sections taught and the student load. This would also unequivocally result in an significant inequity in teaching load.

Dimension 2. The TF recommends that tuition for labs should be should be 0 – 1 Student Credit Hours (SCHs) per lab.

> This is the practice followed by many colleges and universities. It allows both curricular flexibility for science programs requiring a large number of lecture/labs (e.g. Biochemistry, Biology, Chemistry) and for full time students to graduate in four years.
>
> Assigning ≥ 2 SCHS per lab would diminish (or eliminate) the curricular flexibility of science programs which require a large number of lecture/labs. It would completely demolish their 'four-year plans'. Because of the hierarchal nature of science courses, many Gen Ed courses would likely not be taken until late in a student's academic career. Or, alternatively, many full time science students would have to: 1) take more than four years to graduate; 2) take course overloads to graduate in four years; and/or 3) take courses outside of the academic year to graduate in four years. Finally, assigning ≥ 2

SCHS per lab could result in prospective students deciding against coming to Ramapo College to study science.

Charge D. The perceived inequities in current (and potentially future) teaching load

Challenge: There are both perceived inequities in teaching load among faculty and also the potential for inequities generated by possible future curricular models.

Recommendations:

1. The TF recommends a continuation of the 'normal' full time teaching load for tenure track faculty remain at six sections a year.

2. The TF recommends that the 2/3 compensation model for faculty teaching labs not be adopted. Faculty should continue to receive 1 TCH for each Carnegie hour of lab taught.

   The implementation of the 2/3 compensation model would result in a significant disparity in teaching load, with faculty who teach labs having to teach more sections each year than faculty who did not teach labs. For more information related to this topic, see the narrative for Charge C.

3. The TF recommends that convening groups and deans pay attention to disparities in the student load taught by full time faculty and work to minimize them.

Charge E. Scheduling and space issues created by one and two day a week classes

Challenge: There is a perceived imbalance in the use of classroom space across the day and also the week, with insufficient capacity at some time slots and excess capacity at other times

Recommendations:

1. The TF recommends that distribution of classes across the week be more balanced, particularly with an increase in the number of class meetings on Wednesday.
2. The TF recommends that the 2013 Space Report's conclusions about the number of general purpose classrooms required to offer the schedule of classes be revisited.

- Prior to any decision being made about changing the number general purpose classrooms on campus, the need for general purpose classrooms must be reassessed once the new curricular model has been implemented.
- Space utilization analyses should include the utilization of general purpose classrooms for purposes other than class meetings. They are frequently used by student groups for meetings and for other meetings as well (convening group, make up exams, etc.).
- In addition, the Space Report's conclusions about space needs in the near-term and long-term need to be revisited, particularly in terms of the projected need for office space.

3. The TF recommends that flexibility across many dimensions in class scheduling must be addressed prior to the implementation of the 'permanent schedule'. These dimensions include:

    - time and day when classes are scheduled;
    - frequency of course offerings;
    - number of class meetings per week;
    - online & in person & hybrid formats;
    - compressed & traditional schedules.

Charge F. Appropriateness of class scheduling for facilitation of student learning, particularly in 100 and 200 level courses

Challenge: The hypothesis implied in this charge is that students will learn more effectively if they do not take courses in a block (once a week), but instead meet for shorter duration classes of twice or thrice a week.

Recommendations:

1. The TF recommends that Ramapo offer classes once, twice and thrice a week, in addition to fully online and hybrid classes, for maximum flexibility.

2. The TF recommends that 100 and 200 level courses not be limited to a "twice or thrice a week' format. The once a week format should remain an option for courses at all levels.

    - Currently, educational psychology indicates that when college students space their study sessions apart, they have better learning outcomes (Willingham 2002). However, we are not aware of any body of evidence connecting how often college classes meet with student learning.

- Distributed practice (spaced repetition, spaced practice) pedagogies can be applied to classes meeting once, twice, or thrice each week.

3. The TF recommends that the following steps be taken prior to the implementation of the scheduling of classes for the 'new permanent curricular structure'. There is sufficient time for the process outlined below to occur.

    a. A survey of the faculty and/or convening groups be undertaken to determine the number of time slots actually required for classes meeting once, twice, or thrice a week.

    b. Convening groups should have flexibility in choosing the weekly meeting schedule and course format which best suits the needs of their courses and the pedagogical practices of individual faculty.

    c. A survey of students should be undertaken for their feedback on their needs and the impact (from their perspective) of a new course schedule.

    Once steps a. – c. are accomplished, then:

    d. Determine the number of time slots required to meet the projected need for each of the various meeting options based on the information gained from steps a through c.

    e. The Provost, Deans, Registrar, and faculty should assess the impacts of the proposed schedule changes, and tweak the final model to facilitate its successful implementation.

    f. Ideally, a major change in course scheduling should be announced at least one year in advance of implementation. This would allow faculty, students, and the college time to fully prepare and plan for the change; it would also minimize confusion and mistakes in the implementation process. The TF recommends that the above process for the development of a course schedule for the 'permanent curricular model' (planned implementation in Fall 2016) begin immediately. Even though the model is yet to be chosen, information pertaining to steps a. through c. could be gathered in the interim.

Charge G. The perception of low academic rigor and lack of flexibility within the curriculum

This charge has the following dimensions:

1. lack of flexibility within the curriculum

2. perception of low academic rigor
   – GPA
   – student perception of rigor

Challenge: The assertion in this portion of the charge is that 1) students do not perceive the academic climate of the college to be challenging and 2) that the curriculum lacks sufficient flexibility to allow for students to take minors and double majors.

Rather than reducing lack of flexibility, the move to the CEP model resulted in increased flexibility in the curriculum as measured by the number of students who completed a minor.

Recommendations: Lack of flexibility within the curriculum

1. To further enhance flexibility in the curriculum, the TF recommends the elimination (or, less preferably, a significant reduction) of restrictions on double counting in minors and majors.

   This would significantly increase flexibility within the curriculum and be accomplished without forcing majors and minors programs to reduce their course requirements. This recommendation is even more important if the State mandates a 120-credit cap on graduation requirements.

Recommendation: Perception of low academic rigor – GPA

1. The TF recommends that convening groups do a careful review of their grades, grade distributions, and the grading scales to be used.

   Ramapo College has had a persistent average GPA of about 3.1. The highly stable relative variation in Ramapo's overall GPA, as well as the absence of any significant apparent trend, do not support the inference that Ramapo's courses systematically lack academic rigor.

Recommendation: Perception of low academic rigor – student perceptions

1. The TF recommends the adoption of a full 4-credit hour course model as one approach to increasing student perception of academic rigor.

   We extrapolate from our assessment of NSSE surveys that student perceptions of rigor may be related, in part, to the amount of time spent in the classroom, with longer class meetings being perceived as having more rigor.

   The TF finds that, in comparison with the perceptions of first year students, significantly higher percentages of seniors perceive their courses to be more rigorous in terms of ‘Level of Academic Challenge’ (based on NSSE data from 2003 – 2012).

Based on the 2014 NSSE survey: Relative to students at peer institutions, the TF concludes from our assessment of NSSE surveys that first-year students at Ramapo College, on average, perceive that their courses are more rigorous, along a number of dimensions, than do first-year students at peer schools. Seniors report being assigned rigorous coursework, but such assignments do not appear to contribute to their assessment of overall rigor, which is lower than peer schools.

2. With respect to increasing the perception of rigor among Ramapo College students, the TF recommends the use of both focus groups and time-series analysis of NSSE data to isolate where problems exist. The focus needs to be on pedagogical strategies that speak to indicators that need improvement, rather than a wholesale focus on "increased rigor".

Charge H. The low level of academic engagement demonstrated by our students

Challenge: The assertion in this charge is that students at Ramapo College are not sufficiently engaged academically.

Conclusions/Recommendations:

The picture painted by the NSSE data for student academic engagement is mixed. The College is clearly succeeding in engaging students in a number of ways.

Our longitudinal look at engagement as measured by the NSSE is consistent with the results of our section on Academic Challenge. The move in 2006 from a mixed-credit model to a uniform 3.6 credit model had almost no effect on first-year students' perceptions of engagement, and only improved engagement perceptions among seniors. Once again, we find no evidence that movement to a full 4-credit, uniform model would be detrimental to student engagement.

In comparison with the perceptions of first year students, the TF concludes that a significantly larger percentage of seniors perceive a higher level academic engagement in terms of 'Active and Collaborative Learning' and 'Enriching Educational Experiences' (based on NSSE data from 2003 – 2012).

1. The TF recommends maintaining small class sizes and high impact teaching practices.

   Students report more quality interactions with faculty relative to peer institutions. Current high impact teaching practices promote academic rigor and student engagement.

2. Given the recent and fairly substantial changes to the NSSE survey instrument, the TF recommends that several open forums with both faculty and professional staff be held to explain the kinds of activities that NSSE asserts promote student academic engagement.

   Student learning outcomes associated with curricular and co-curricular activities could be aligned with this new language and embedded in syllabi. As students

become more aware of how their assignments and co-curricular experiences speak to engagement goals though exposure to the terminology, scores on NSSE items might be expected to go up.

3. With respect to the consistently low marks given to various student support offices around campus, the TF recommends that professional staff working in those areas be made aware of the NSSE results (perhaps via the open forums suggested above). Managers in those areas should be encouraged to improve the experiences of students who interact with their offices.

Links to the Strategic Plan

The TF finds that several recommendations made in this report support the College's current Strategic Plan, particularly Goal 1: Advance Academic Excellence and Engagement.

Objective 1.1: The College will offer rigorous curricula and experiential activities that prepare all students for a lifetime of achievement.

The Strategic Plan in its Achievement Target 1.1.1 aims to evaluate requirements by using peer-normed data like NSSE to assess and improve overall academic rigor.

> The TF's recommendation under Charge A that the College retain the 4-credit model and should move to increasing faculty-student contact hours per week to match the Carnegie model (200 minutes per week) is in keeping with this objective of the Strategic Plan.
>
> Further, the TF's recommendation that the adoption of a full 4-credit hour course model is one approach to increasing student perception of academic rigor (Charge G), is consistent with the achievement target set out in Objective 1.1.1 of the Strategic Plan. In keeping with the Objective 1.1 of the Academic Excellence and Engagement goal, the Task Force used peer-normed data like NSSE to assess overall academic rigor and made recommendations based on this data.

Objective 1.2 The current Strategic Plan notes under Objective 1.2 that the elements of Enriching Educational Experiences will be used as indication of increased personal engagement.

> To this end, the future schedule of classes should ensure that students have time during the week to complete internships and to participate in field trips and other coursework related activities. This will allow the College to meet the Achievement Target 1.1.2 of the Strategic Plan in which internships, student/faculty research, and service learning are included in the list of extended experiential activities that will be required of 90% of undergraduate major programs.
>
> The TF's 3-pronged recommendations under Charge H are also in keeping with the College's current focus to improve academic engagement. The longitudinal review of

NSSE data confirms the observations made by the TF, and support the College's current initiative as stated in the Strategic Plan.

The TF recommends under Charge E that flexibility across many dimensions in class scheduling must be addressed prior to the implementation of the 'permanent schedule.' The TF also notes that ensuring maximum flexibility in course offerings, including once, twice, and thrice a week classes, in addition to fully online and hybrid classes, will enhance student learning (Charge F). These recommendations also connect with Objective 1.2 of the Strategic Plan.

Objective 2.5 – The College will ensure that its major institutional decisions are based on timely, accurate, and reliable data.

A Data Committee was established prior to the formation of the TF to select the appropriate data required for TF to make its analyses. This data was up to date and collected in large part by the Administration. The TF requested additional information as needed during its deliberations. It may be noted that the TF's findings and recommendations are based on the most recent data made available through the Provost's office, including current NSSE data.

In addition, the TF's call to conduct campus-wide surveys, of students in particular, prior to implementation of the new schedule is in keeping with the SP's intention to base major institutional decisions on timely, accurate and reliable data.

Charges and Methods: Narrative

Charge A. Accreditation issues caused by the CEC

Method: We researched how student credits are earned at TCNJ and Stockton, to compare their credit models with our own because these colleges are of a similar size, are bound by the same state master contract, and also work on a 4-credit model. Both of these colleges had success with respect to credit hours in their previous reports. Currently, Ramapo students are awarded 4 credits for a class that is short of the contact time by 0.4 hours, necessitating curriculum enhancement (CEC). We find that that the accreditation issues are of paramount importance.

A summary of those findings:

<u>Stockton (historically has been 4 credits)</u>

- 3 – 3 teaching load
- 4 teaching credits for each course
- No CEC, no flex
- No discussion of research or service available through documents.
- Classes meet 1, 2 or 3 three times per week
- 2012 Middle States report – very positive with respect to credit hours

<u>TCNJ ("Transformation" launched in Fall 2004)</u>

- 3 – 3 teaching load
- 3 teaching credits for each course (18 credits total), 3 credits for "scholarship or creative activities, 3 credits for "continuing course design a advising/mentoring responsibilities"
- Each course requires an extra 1-hour "conference section" (student attendance not required)
- Middle States 2004 study & 2010 Periodic Review Report indicated no problem with this curricular structure
- Issues with the TCNJ "Transformation" may be appearing
- August 2014 memo states that all syllabi must provide information on how the "fourth hour is fulfilled"
- Informal feedback reveals that overall faculty are satisfied with the current structure, but apprehensive of change coming from the next Middle States review

In light of the above comparative findings, we conclude that a 4-credit model that requires the requisite number of minutes in class under the Carnegie system will be acceptable under the Middle States accreditation standards.

In the process of making a recommendation about 4-credit courses in the context of the current 128 credit requirement for graduation, the TF also explored the suitability of 4-credit courses for a 120 credit requirement for graduation. Our conclusion is that 4-credit courses would also be the preferred option for the latter. Our rationale is provided below.

There is little need to provide an exhaustive review on 3-credit vs 4-credit course models. Both models have their respective strengths and weaknesses. The primary advantage of 3-credit courses and a 120 credit graduation requirement is that students would be taking a higher number of courses (40 3-credit courses vs 30 4-credit courses). But the many advantages of 4-credit courses when used in the context of a 120 credit graduation requirement far outweigh the more limited advantages associated with 3-credit courses. Some of the many advantages of 4-credit courses (for graduation requirements of either120 and 128 credits) are listed below.

1. Many 'high impact' teaching practices require the extra time allowed by 4–credit courses.

2. By taking four 4-credit courses each semester, students would only be two courses short of graduation by the end of their seventh semester. Thus a student could graduate by the end of their seventh semester if she/he had either transferred in two AP courses or had taken two courses in summer or winter sessions.

3. In light of the above, education students could do their student teaching in their eighth semester and thus graduate in four years.

4. Students could take three courses in one (or even two) semesters and still graduate in four years. This would allow for the possibility of a reduced load, for whatever reason, without impeding significantly a student's progress to graduation.

5. The cost of buying texts for four courses would generally be lower than buying texts for five courses.

6. Having four courses each semester would allow students to more fully focus on, and understand, the topics they study.

<u>Comparison of need for adjunct/overload credits across different credit systems</u>

A model was developed to explore the <u>relative cost</u> of adopting three different course load options: 1) 3-credit courses with 8 sections taught each year; 2) 3-credit courses with 7 sections taught each year; 3) 4-credit courses, with 6 sections taught each year; 4) the current CEP model: 3.6(4)-credit courses, with six sections taught each year. Please note that this model is not predicting the actual cost for Ramapo College to adopt any of these options. It is simply comparing the relative number of adjuncts required by each option.

Assumptions of model

- 5000 undergraduate students (FTE)
- each student takes a full course load
  [either five 3-credits courses or four 4-credit courses]
- mean class size = 25 students
- 200 full time faculty (FTF)

With a 4-credit system, 1,600 courses would need to be offered over two semesters to meet the needs of 5,000 full time students (assuming 25 students/course). With a three course per semester

load (six courses per year), two hundred FTF would cover 1,200 courses. Adjuncts would be required to cover the remaining 400 courses. This would be equivalent to 1600 SCHs. Similar calculations were carried out for each of the four course load options explored.

Based on this model the option requiring the largest number of adjunct instructors to cover course sections not covered by full time faculty (FTF) was Option 2 (Figure A1). It is clear that moving to Option 2 (3 credit courses with a seven course per year load) would be more expensive than moving to Option 3 (4-credit courses with a six course per year load). Option 1 (3-cerdit courses with an eight course per year load) would require the least amount of adjuncts to cover the number of courses required. The number of adjuncts required by Options 3 and 4 was identical. However, under Option 4 the college effectively had more tuition because adjuncts and faculty on overload are paid 3.6 credits for each course while students paid 4.0 credits (Figure A1).

The TF recommends Option 3 as the being best course model and work load for Ramapo College. It provides a good balance among teaching, scholarship, and service to the college. Four credit courses also provide the time required from many high impact teaching practices (student discussions in class, student presentations, etc.). Although Option 1 would result in the smallest number of adjuncts needed, it would increase the teaching work load of the FTF by one third. Option 2 would increase both the teaching work load for FTF and also, it would more adjuncts than the other options. Both Options 1 and 2 would result in less time for scholarship and service to the college.

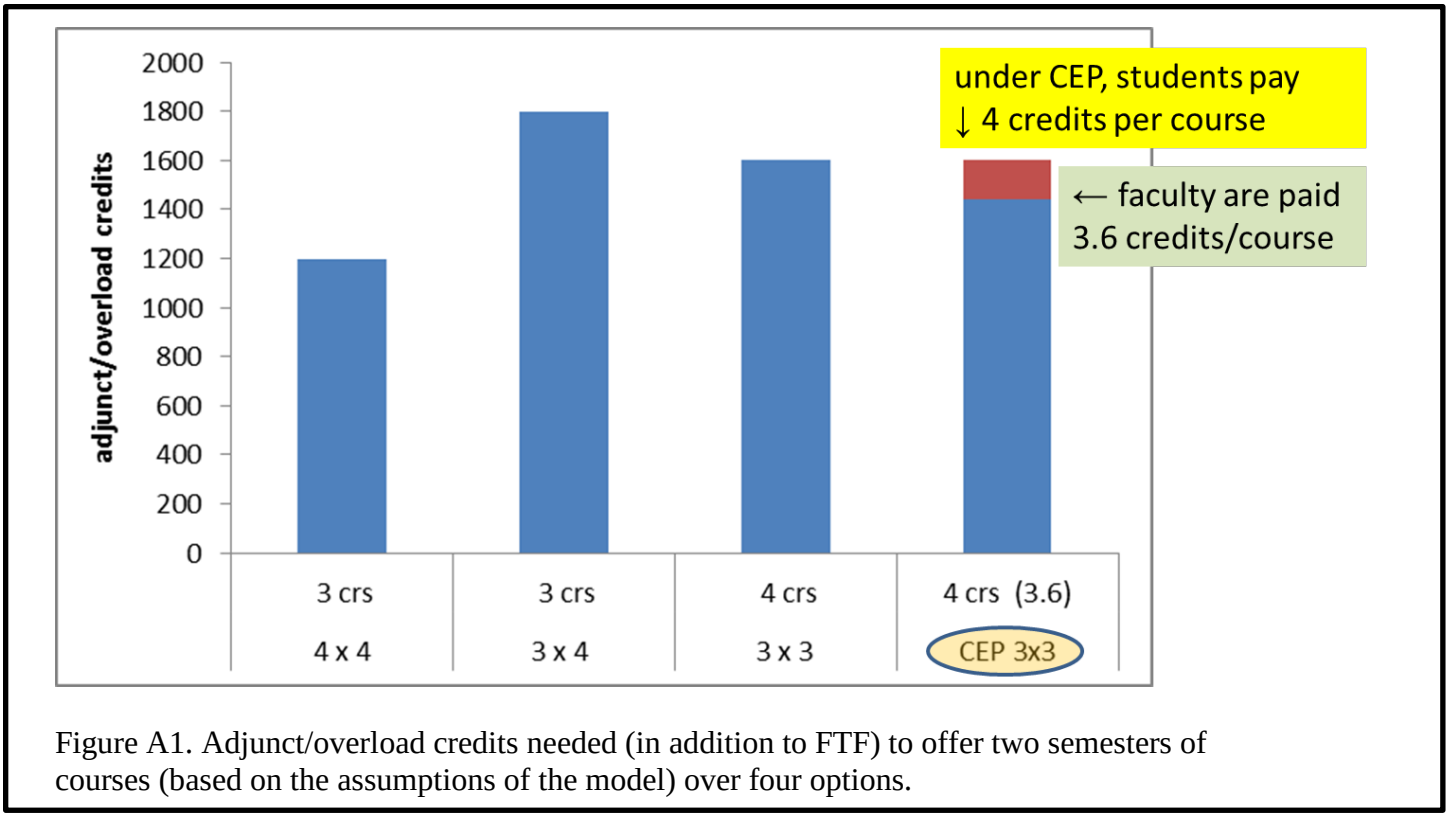

Figure A1. Adjunct/overload credits needed (in addition to FTF) to offer two semesters of courses (based on the assumptions of the model) over four options.

Charge B. Transfer credit issues related to our practice of accepting 3-credit courses as equivalent to 4-credit courses

Challenge: Ramapo is part of the Statewide Transfer Agreement Policy. In the College's current practice, Ramapo students that transfer credits from institutions with 3-credit courses may be used to fulfill courses in their degree requirements as if the 3 credit course was equivalent to our 4 credit course.

Method: In keeping with our previous work, we researched the practices of TCNJ and Stockton. The practices of transfer credit at the former were not available. The policy regarding transfer credit at Stockton is:

> "When a transfer course does not have the same credit value as its closest Stockton equivalent course, the course may still be used to fulfill a specific degree or program requirement. *All aggregate credit requirements must be met*." (emphasis added)

A survey of this problem at other 4-credit institutions showed similar policies.

We recommend adopting the same solution: adopting a credit requirement within majors and minors. For example, if a student transfers four 3-credit courses into their major upon joining Ramapo, those courses should fulfill major requirements if the courses had similar content to courses required here, but the student should only receive 12 transfer credits, not 16. Therefore the student must take an additional 4 credits within the major to meet the major's credit requirement.

While the above solves the issue for the transfer of 3 credit courses into the requirements of majors and minors at Ramapo College, it does not address the mismatch of 3-credit courses being accepted as equivalent to the College's 4-credit General Education courses. However, based on the Comprehensive Statewide Transfer Agreement, this issue is something that the College has no control over, as incoming students with Associate's of Arts or Associate's of Science degrees from NJ community colleges cannot be required to take General Education courses. The TF concludes that Ramapo College should focus on cultivating the recommendations of the General Education Task Force II rather than moving to emulate local community colleges.

One possibility to facilitate the successful transfer of students to Ramapo would be the creation of a course for transfer students that mirrors some aspects of the First Year Seminar. This course would not be part of General Education and perhaps be recommended (rather than required).

C. The revenue (or lack of revenue) issue created by the current work-load given to science faculty who teach labs

Methods:

There are two dimensions to this charge:

1. teaching credit hours (TCHs) for faculty teaching labs
2. student credit hours (SCHs) assigned to labs

Dimension 1. We studied Article XII (Faculty Responsibilities) of the State Master Contract which covers teaching load. We then researched the practices of TCNJ, Stockton and the seven other State Colleges and Universities. A description of the teaching responsibilities associated with teaching a science course at Ramapo College was developed (see next page).

Dimension 2. The number of lecture/labs required per science major in TAS was determined. Models were developed to test the impacts of charging tuition for taking a lab. The assessed impacts included the increased number of credits required to fulfill the requirements of one science major requiring 10 lecture/labs (Biology, selected as an example) and the resulting changes in curricular flexibility (i.e. ability for science students to take a minor with no overlap with their major and still graduate within 128 credits) resulting from charging tuition for labs.

Dimension 1: Teaching credit hours (TCHs) for faculty teaching labs

Faculty teaching load is covered under Article XII (Faculty Responsibilities) of the State Master Contract. In Article XII, teaching credit hours are defined as follows:

1. When the number of regularly scheduled average weekly class hours equals the number of student credit hours, teaching credit hours shall equal student credit hours.

2. *When the number of regularly scheduled average weekly class hours is greater than the number of student credit hours, those class meetings typically designated as "laboratories" or "studios" shall be equated on the basis of two-thirds (2/3) of a teaching credit hour for each such class hour* (emphasis added)

A State college or university may choose to award more than two-thirds of a teaching credit hour for each hour of lab, but not less than that amount. Ramapo College has a long tradition of paying more than 2/3 TCHs per hour of lab. Under the CEP model and the Interim Model, faculty received the same number of TCHs for teaching a lecture and for teaching a lab. Aside from Ramapo College, all of the other NJ State colleges and universities follow the 2/3 TCH per Carnegie lab hour model set by the Master Contract. The current national practice for lecture/labs is that faculty compensation is typically less than 1 TCH for each Carnegie hour of weekly lab meeting time.

Lecture/lab models at Ramapo College (with the Interim Model)

Lecture/lab model
- lecture component (meeting 4 SCHs)
- separate lab component (meeting ≥ lecture time, no SCHs)
- total of 8 TCHs required

Integrated lec/lab model
- lecture & lab combined (meeting 4 SCHs)
- total of 4 TCHs required
  - Note: this model only covers 50% of the material taught in the lecture/lab model

Teaching a science laboratory at Ramapo College requires, or is characterized by, the following:

1. Each lab meeting needs to be well planned and tested;
2. Each lab meeting must be set up (prepped) and taken down;
3. Labs often have a lecture component within the lab period;
4. Each lab requires a fully engaged teaching process;
5. Faculty instruct students on how to write lab reports
6. Faculty grade and provide feedback on lab reports (usually weekly)
7. Lab courses typically have exams.

In addition, the science labs at Ramapo College embody 'High-Impact Educational Practices' as defined by the Association of American Colleges & Universities. These include: Collaborative Assignments and Projects, Undergraduate Research, and Writing Intensive status. (Note: A useful summary of those practices identified by the AACU as "High Impact" is available at http://www.aacu.org/leap/hips.) High-Impact Educational Practices are linked to increasing academic engagement and rigor, which are related to Objective 1.1 of the Strategic Plan.

The TF concludes that teaching science laboratories at Ramapo College unequivocally requires at least as much 'work' as teaching lectures. Faculty compensation for teaching labs should therefore be equivalent to that paid for teaching lectures (i.e. 1 TCH per Carnegie hour of class meeting time per week). It is not ethical to reduce faculty compensation in order to help defray the cost of 'phantom credits' (see section on 'Dimension 2' below) that are associated with students being charged no tuition (or reduced tuition) for the lab component of a lecture/lab course.

Dimension 2. Student credit hours (SCHs) assigned to labs

The number of labs required by TAS programs is listed in Table C1.

The current national for lecture/labs is that SCHs assigned to lecture/labs are less than the TCHs required to offer the course. Thus the TCHs required to teach a lec/lab are not fully covered by tuition. Students are often charged 0 to 1 SCH for the lab component. TCNJ does not appear to assign SCHs to lab (each lec/lab counts as 'one unit'). Stockton charges 4 SCHs per lecture and 1

Table C1. TAS Programs requiring labs with the number of labs required for each.

Program	Labs
Chemistry	11
Biology	9 – 10
Environmental Science	7
Bioinformatics	6 – 7
Integrated Science	6 – 7
Nursing	4
Engineering Physics	3

SCH per lab in lower level courses (5 SCHs total). Stockton follows a mixture of practices for upper level courses, including: 0 SCHs per lab, a high percentage of integrated lecture/labs, and 4 SCHs for "Lab Instructional Method" courses.

The model used to predict the impact of charging tuition for taking a lab is provided in the appendix located at the end of this section. Figure C1 shows that the flat rate tuition nullifies up to 16 SCHs gained by assigning SCHs to labs for full time students (FTS). Thus, with the current 'flat rate tuition' (12 – 18 SCHs), assigning 1 SCH per lab would yield little, if any, additional tuition from full-time students.

Charging 2 SCHs per lab would only net 4 SCHs per biology student who takes 10 lecture/labs over eight semesters (Figure C1). Charging 4 SCHs per lab would result in a net gain of 24 SCHs based on one student taking 10 lec/labs over 8 semesters (Figure C1).

When one factors in academic flexibility (Figure C2), it can be seen that assigning 0 and 1 SCHs per lab would allow a Biology student sufficient academic flexibility to complete a minor having no overlap with his or her Biology major. Assigning two or more SCHs to each lab would diminish academic flexibility to the point that taking a minor that featured no overlap with the Biology major would not be possible without exceeding 128 credits. Finally, charging 4 SCHs per lab would force a Biology student to take 132 SCHs to graduate (exceeding the 128 SCH graduation requirement, with only the requirements for Gen Ed and the Biology major being met).

Charging tuition for labs also has the potential for having significantly negative impact on the 'four-year' plans of science programs. Some science programs require students to take two lecture/labs a semester, and this may occur over several semesters, particularly in the first two or three years. Assigning 1 SCH per lab would not disrupt the 'four-year' plans of these science

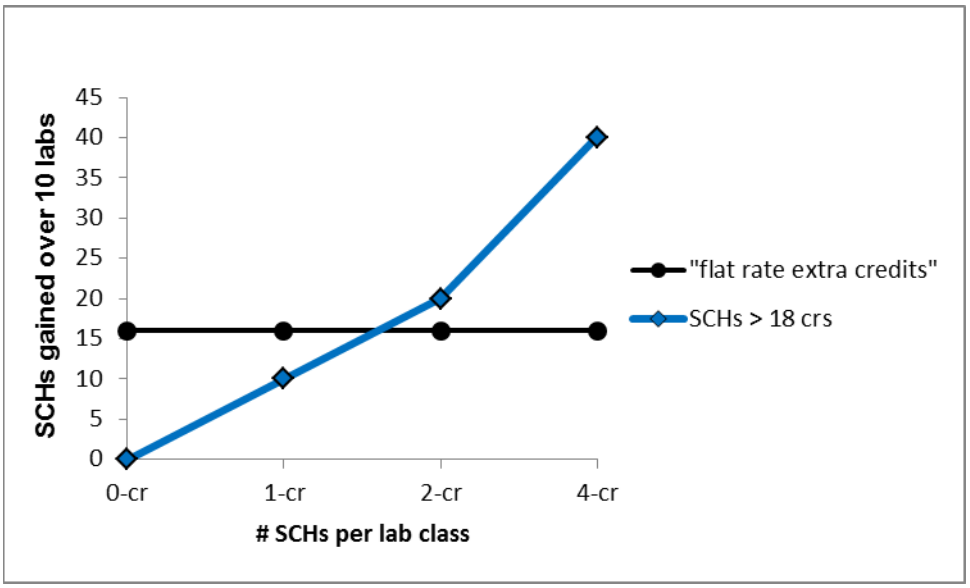

Figure C1. SCHs generated by charging 1-4 SCHs per lab for one student fulfilling the 10 lec/labs required by the Biology major over eight semesters (based on the model described in the appendix located at the end of this section). The 16 'free' SCHs generated by the two extra credits provided by the flat rate tuition (12-18 SCHs) over eight semesters is indicated by the black line.

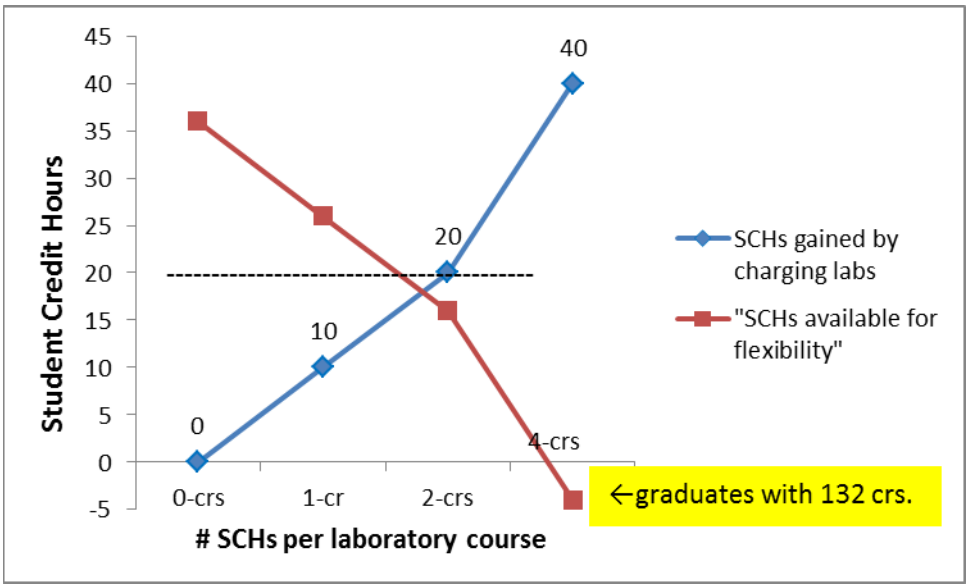

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Figure C2. The SCHs gained by assigning 0 – 4 SCHS to labs vs the number of SCHs available for "academic flexibility" based on one student fulfilling the 10 lecture/labs required by the Biology major over eight semesters (based on the model described in Appendix A). The horizontal dashed line indicates the number of 'flexible' SCHs required to fulfill a minor having no overlap with the Biology major.

programs because students would be to take two lecture/labs as well as two lecture courses each semester (a total of 18 SCHs). However, assigning ≥ 2 SCHs per lab would mean that students could only take two lecture/labs and one 4-credit course a semester (instead of the typical 4 courses) and stay within 18 credits. Thus many science students would only be taking three courses each semester for the first one, two, or even three years (assuming that they did not take overloads). This means that many science students would 1) take many Gen Ed courses late in their academic careers; 2) delay taking required science courses (which may result in taking more than four years to graduate); 3) take overloads; and/or 4) take courses in summer and winter sessions. Many prospective science students may choose to attend other academic institutions if the tuition for labs was ≥ 2 SCHs.

Although beyond the scope of our charge, the TF presents three options to generate more dollars to help defray the cost of the 'phantom credits' associated with lecture/labs. Each of the three options gains some 8 – 10 SCHs of tuition (or its equivalent).

Option 1: Adjusted flat rate (12-16 SCHs) for FT students taking lec/labs

a) laboratory courses remain at 0 SCHs
b) 'flat rate' tuition for full time students taking a lec/lab in a semester is 12–16 credits.

Justification: students enrolled for 16 crs and taking one lec/lab are getting the equivalent of 20 TCHs of contact time. Setting the flat rate to 16 credits simply reflects the cost of the 'phantom' TCHs associated with teaching laboratories.

Model testing Option 1

Assumptions:

- calculated on a per student basis
- student is full time student for four years at Ramapo
- at least one lecture/lab is taken each semester
- student averages 17 credits per/term

Outcome: a net gain of 8 SCHs of tuition

However, it may be that students will not take a 17th credit because it is no longer free.

Option 2: 'flat rate' 12 – 16 credits for all FT students

a) One SCH assigned per lab
b) 'flat rate' tuition for full time students taking a lec/lab in a given semester set to 12─16 credits
c) The equivalent of 2 SCHs of 'Conditioning' classes would be free to all full-time students and carry no academic credit.

Model testing Option 2

Assumptions:

- calculated on a per student basis
- biology student is full time for four years at Ramapo
- 10 lec/labs are taken

Outcome: a net gain of 10 SCHs per student

Another model testing Option 2

Assumptions:

one lab section with 20 students

20 SCHs x tuition ($270.30/cr.) = $5406

cost of adjunct to teach the lab = $5200 ($1300 x 4)

Outcome: sufficient tuition would be gained to slightly exceed the break-even point for paying the direct cost of an adjunct receiving 4 SCHs to teach the lab.

Option 3: Science Course fee

a) Charge a 'Science Course" fee for each science course taken in majors having lecture/labs.
b) Keep current 'flat rate' tuition
c) No SCHs assigned to labs

Model testing Option 3

Assumptions:

- calculated on a per student basis
- biology student: full time for four years at Ramapo
- student takes 14 science courses
- $150 Science course fee per science course

Outcome: a net gain of $2100 in fees (roughly equivalent to 8 SCHs of tuition: $270.30 for In-State residents)

However, as these are fees they may not be covered by financial aid or by employers covering the tuition expenses of their employees.

A note on 'production' courses in CA

CA's 'studio' courses are 'integrated lecture/studio' courses which we will refer to as 'production' courses. They have a unique course structure developed at the founding of the college by President George Potter and CA faculty to teach in a liberal arts curriculum. Production courses combine theory, craft, and creative activity in a single course, unlike 'studio' courses in other BFA institutions, which are segregated by activity (theory, history, technical production, critique, etc.).

The 'production courses' offered by CA are unique by discipline (journalism, design, film, visual arts, theater, music) but share certain common characteristics that teach students about the concepts and their application to practice as well as framework for producing expressive work. These characteristics include:

Readings, lectures, discussions, and short writing assignments explore history and current practice of the discipline as well as familiarize students with the vocabulary and language of that discipline;

Technical skills are taught as a means to an end, just as typing or word processing is taught as a part of the writing process, not as an end in and of itself;

Students' creative work is discussed in critique to give students insight into how to improve their practice, presentation, and critical analysis of the work being produced to understand how well they have been able to apply theory and technique to their work.

Assignments are tied to specific learning objectives and outcomes:

- Critical reading and writing
- Technical assignments
- Creative assignments

Class time is spent:

- Lecturing
- Discussing creative work
- Applying technical concepts to expressive work
- Doing group work

The amount of work involved in teaching production courses is comparable to that required for teaching a lecture. In addition, the number of regularly scheduled average weekly class hours for production courses equals the number of SCHs. Thus, in this case, just as for lab sections, TCHs should equal SCHs according to the State Master Contract and Ramapo College has historically followed this practice.

Appendix. Model to test income from assigning SCHs to laboratory classes

- calculated on a 'per student' basis
- based on current combined requirements for Gen Ed & Biology (this requires 10 lec/lab courses). This sums to 92 SCHs, leaving 36 SCHs open for minors, etc.
- student spends four years as a full time student at Ramapo College
- 'flat rate' tuition for full timers: 12-18 credits
- 64 SCHs to fulfill Biology requirements
- with double counting, 28 SCHs to fulfill Gen Ed
- with double counting, 0 SCHs to fulfill TAS core

The current 'flat rate tuition' provides for 2 SCHs beyond 16 SCHs. ─ Oover 8 semesters this amounts to 16 'free' SCHs. By assigning 1 SCH per lab, 10 SCHs would be gained by one full time Biology student taking 10 labs over 8 semesters. However, this potential gain of 10 credits (over four years) is nullified by the 16 'free'SCHs' resulting from 'flat rate tuition' (see above, below, and Figure C2). In addition, the credits charged for labs (a total 10 in the case of Biology) would reduce the academic flexibility of Biology majors (see Figure C2).

16 'free" SCHS - 10 lab SCHs = no increase in tuition by assigning 1 SCH per lab.

A similar set of calculations was carried for charging 0 – 4 credits for each lab. The results are provided in Figures C1 and C2 in the report (in the narrative for Charge C).

Charge D. The perceived inequities in current (and potentially future) teaching load

There are two dimensions to this charge:

1. Perceived disparity in the number of sections taught per year (course load)
2. Perceived disparity in the number of students taught each year (student load)

1. Perceived disparity in the number of sections taught per year (course load)

Method. Scenarios showing the amount of inequity in course load for FTF if the 2/3 compensation for each Carnegie hour of lab were to be adopted were developed and the results are present below. The full time teaching load for tenure track faculty in the current curricular structure is six courses each academic year. Prior curricular structures at the college resulted in unbalanced teaching loads, with FTF teaching 6 to 8 courses per year.

One significant potential for inequity in teaching load would be moving to a 2/3 compensation model for faculty teaching labs. This would result in a significant inequality in teaching load, with faculty who teach labs having to teach more than six courses each year. In each of the three scenarios listed below. FTF who taught labs would be forced to teach more sections per year than FTF who did not teach labs. Additional information related to this topic is provided in the narrative for Charge C.

Under a 4-credit system, and assuming that the length of labs remained at 200 minutes (4 Carnegie credits)

A FTF member teaching one to three labs per year would have to teach <u>seven</u> courses to fulfill 24 credits.
- one lab and six lecture courses (with a forced overload of about 2.7 credits)
- two labs and five lecture courses (with a forced overload of about 1.3 credits)
- three labs and four lecture courses (this would essentially equal 24 credits)

A FTF member teaching four to six labs per year would have to teach <u>eight</u> courses to fulfill 24 credits.
- four labs and four lecture courses (with a forced overload of 2.7 credits)
- five labs and three lectures (with a forced overload of 1.3 credits)
- six labs and two lectures (this would essentially equal 24 credits)

A FTF member would need to teach nine labs to fulfill 24 credits.

Under a 3-credit system, and assuming that the length of labs remained at 200 minutes (4 Carnegie credits)

A FTF member teaching one to six labs per year would have to teach <u>nine</u> courses to fulfill 24 credits.
- one lab and eight lecture courses (with a forced overload of 2.7 credits)
- two labs and seven lecture courses (with a forced overload of 2.3 credits)
- three labs and six lecture courses (with a forced overload of 2.0 credits)
- four labs and five lecture courses (with a forced overload of 1.7 credits)
- five labs and three lecture courses (with a forced overload of 1.3 credits)

six labs and three lecture courses (with a forced overload of 1.0 credit)

A FTF member would need to teach nine labs to fulfill 24 credits.

Under a 3-credit system, and assuming that the length of labs was reduced to 150 minutes (3 credits)

A FTF member teaching one to three labs per year would have to teach nine courses to fulfill 24 credits.

one lab and eight lecture courses (with a forced overload of 2 credits)

two labs and seven lecture courses (with a forced overload of 1 credit)

three labs and six lecture courses (with no overload)

A FTF member teaching four to six labs per year would have to teach ten courses to fulfill 24 credits.

four labs and six lecture courses (with a forced overload of 2 credits)

five labs and five lectures (with a forced overload of 1 credit)

six labs and four lectures (with no overload)

A FTF member would need to teach twelve labs to fulfill 24 credits.

2) Perceived inequity in the number of students taught each year (student load)

Methods: Institutional Resources provided the TF with data on student enrollment for each full time faculty member in fiscal year 2014 (2013/2014). This was used to determine the range of variation in the total number of students taught by FTF in each semester. This data was partitioned into five groups (<30 students, 30 – 49 students, 50 – 69 students, 70 – 89 students, and > 90 students) was tallied for each school and for the college as a whole. The results are shown in Table D1 and Figure D1. Two variables were not accounted for: 1) released time (which would lower the number of students taught by a FTF member) and 2) overload (which would raise the number of students taught by a FTF member). As this was done on a semester basis, we did not take into account the possibility that a FTF member might have a heavier student load in one semester which was balanced by a lighter student load in the other semester.

There is a wide range of variation in student load per FTF member, and this disparity occurs within schools, among schools, and across the college as a whole (Table D1, Figure D1). In every school there were FTF (albeit a very small percentage) teaching fewer than 30 students in at least one semester of Fiscal Year 2014 and FTF teaching ≥ 90 students (Table D1 and Figure D1). At the all college level, more than 70% of the FTF had a student load ≥ 50 students per semester in both Fall 2013 and Spring 2014 (Figure D1). In both semesters, the highest percentage of FTF had student loads falling within 50 – 89 students (Figure D1). The percentage of FTF with student loads ≥ 90 students for Fall 2013 and Spring 2014 was 17.4% and 18.7%, respectively.

Table D1. Total number of students (undergraduate + graduate) enrolled per full time faculty (FTF) member in 2013 – 2014. The number of FTF in each range is indicated by school. The range with greatest number of faculty in each school is highlighted in yellow.

a) Fall 2013

Total students	CA	SSHGS	SSHS	TAS	ASB	Total/Group
<30	4	1	2	3	0	10
30-49	15	12	13	6	3	49
50 - 69	9	17	15	9	6	56
70 - 89	5	4	16	15	16	56
≥ 90	1	2	8	11	14	36
Total/School	34	36	54	44	39	

b) Spring 2014

Total students	CA	SSHGS	SSHS	TAS	ASB	Total/Group
<30	0	1	2	1	3	7
30-49	15	10	10	3	2	40
50 - 69	12	14	18	13	6	63
70 - 89	4	9	13	14	15	55
≥ 90	1	2	9	13	13	38
Total/School	32	36	52	44	39	

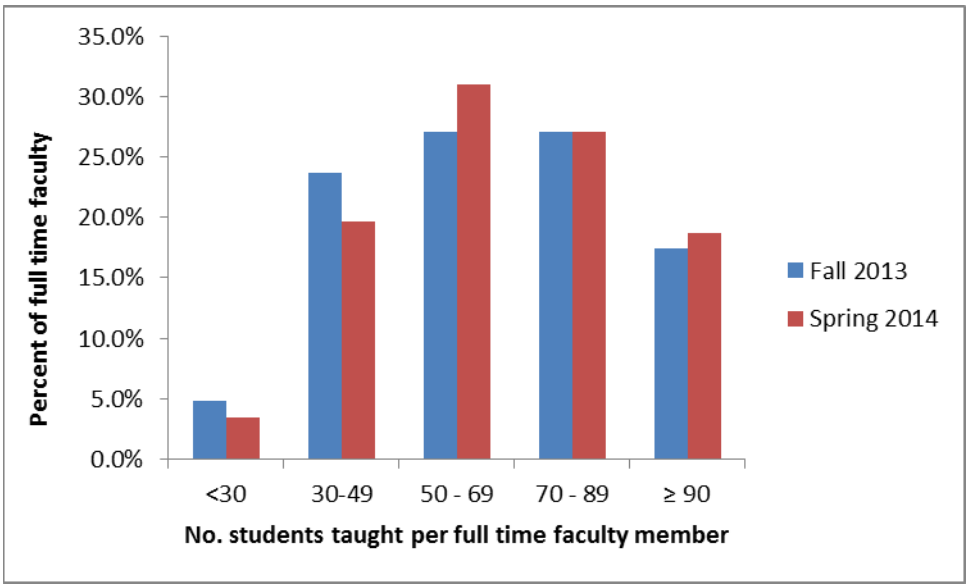

Figure D1. Percentage of full time faculty falling in different size groupings of student load in Fall 2013 and Spring 2014.

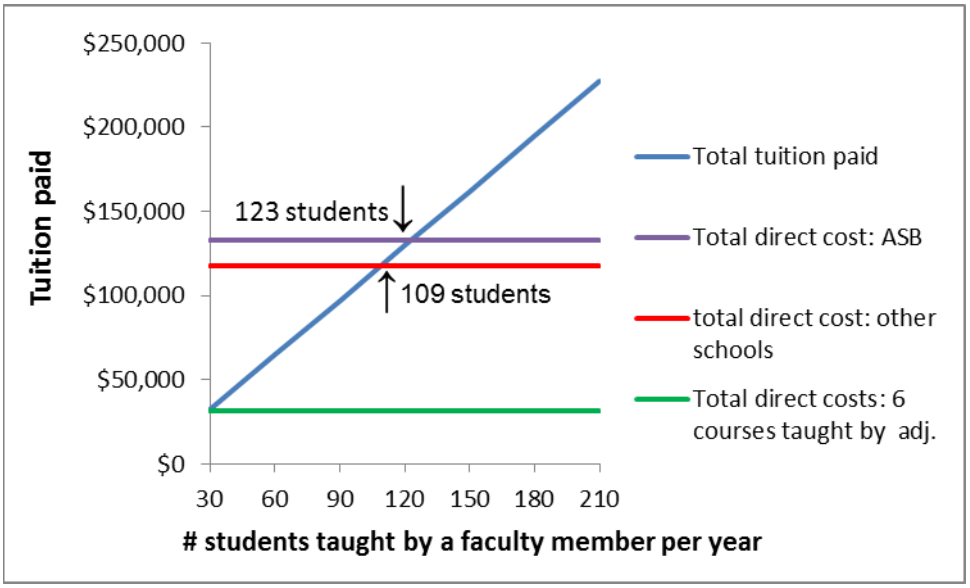

Figure D2. Mean break-even points for direct cost of full time faculty (FTF) and adjuncts. For adjuncts, the data is based on six adjuncted courses (equivalent to the six courses taught by FTF).

It is clear that there is a significant disparity in student load at Ramapo College. However, there is a complex web of variables underlying this disparity: some courses have limited enrollment caps because of pedagogy (e.g. writing intensive courses, labs, production courses); courses having Gen Ed status often have large enrollments; etc. The TF recommends that convening groups and deans pay attention to disparities in the student load taught by full time faculty and work to minimize them.

Based on the data on student load for FTF in 2013/2014 and using the estimates of mean direct cost per faculty member for each school generated by the 2013 Faculty Assembly Budget Committee (FABC), the TFAEE estimated, for each school, the relationship between mean student load vs the mean direct cost for a FTF member (salary plus benefits) and an adjunct (salary). This data is presented for both Fall 2013 and Spring 2014, and is based on a per faculty member basis.

At the time when the FABC study was done, the mean direct cost for FTF in four schools (CA, SSHGS, SSFHS, TAS) was $117,775. For ASB, the mean direct cost was $132775. For the current fiscal year (2015), tuition is $270.30 per credit. Dividing the tuition per credit into the mean direct cost per FTF yields the number of student credit hours (SCHs) required to cover the direct cost of the average FTF member. For ASB, the average FTF needs to teach 123 students each year (across six courses) to reach the break-even point (Figure D2). For the other four schools, the number is 109 students each year (Figure D2). Thus FTF who teach less than 123 students per year in ASB, and less than 109 students in the other schools, represent a financial deficit. On average, faculty teaching more than 123 students per year in ASB, and more than 109

students in the other schools, represent a net gain in dollars. This analysis does not include the mean 'indirect costs' associated with each FTF member. However, this approach (not to include indirect costs) is in line with the approach used by the FABC and also by the President's Financial Sustainability Task Force (which presented its report to the college in January 2014).

Two values were used to portray the student load carried by faculty: S = the mean number of students taught per faculty member; S_{mod} = the mean number of SCHS generated per faculty member divided by 4. Dividing the total number of SCHs by four (4 credits/course) converts SCHs into S_{mod},the effective number of students generating the SCHs. S_{mod} allows for the lack of revenue associated with labs, etc. to be taken into account. Thus for a lecture/lab with 20 students, S=40 and S_{mod} = 20.

Figures D3 and D4 show the combination of mean S_{mod} for FTF and mean S_{mod} for adjuncts for each school. Two break-even lines are provided for these figures: the solid black line assumes that each adjunct taught one course that semester and the dotted black line assumes that each adjunct taught two courses that semester. Both figures clearly show that all five schools are exceeded the combined mean direct cost per FTF and per adjunct in both semesters. ASB is generating the highest net yield, followed by SSHS, TAS, SSHGS, and CA. It should be noted that TAS exceeded the mean direct cost of FTF and adjuncts in spite of the lack of tuition for labs.

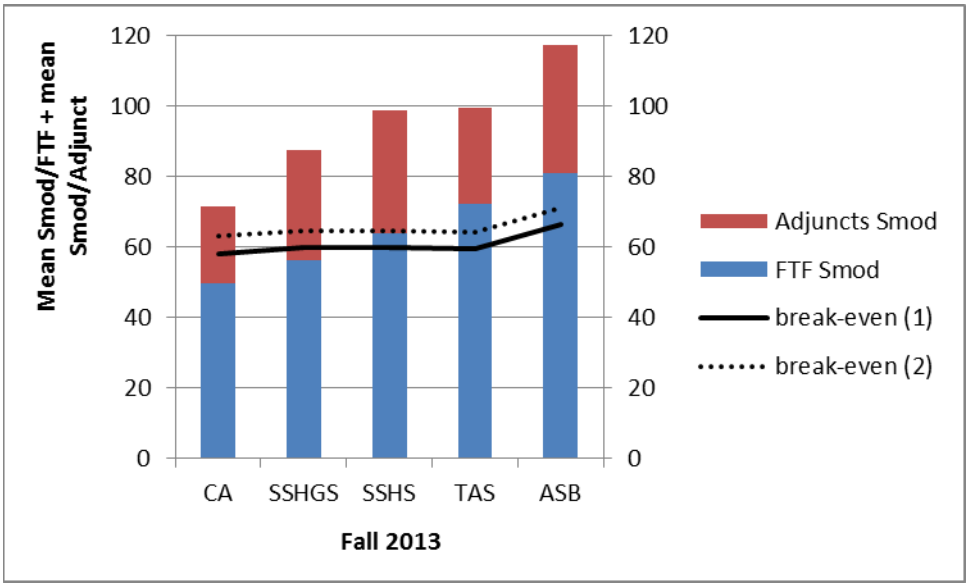

Figure D3. Mean S_{mod} per FTF combined with mean S_{mod} per adjunct across schools in Fall 2013. The mean 'combined break-even' for direct cost per FTF and per adjunct is shown as: solid black line – adjuncts teaching one course; dotted black line – adjuncts teaching two courses.

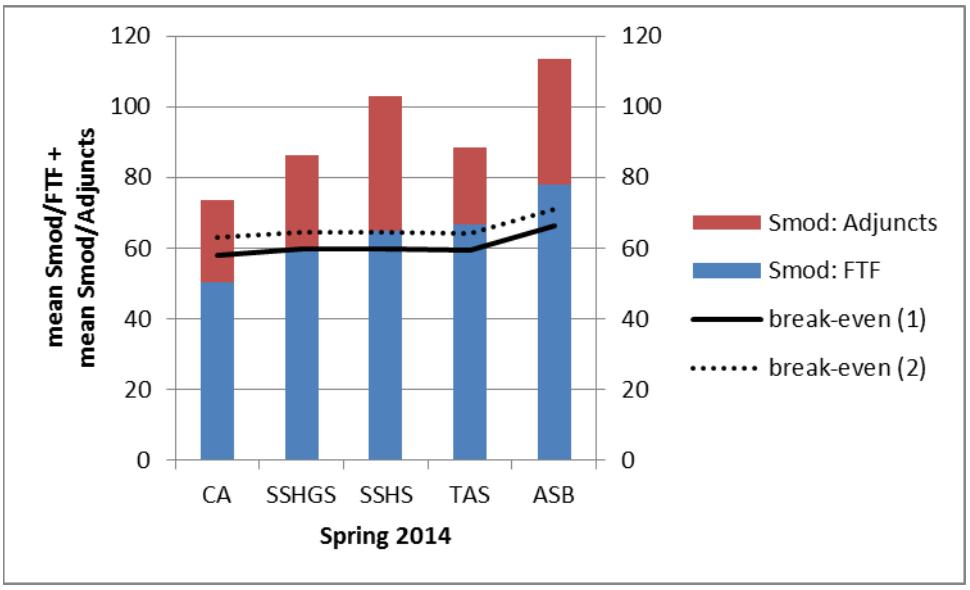

Figure D4. Mean S_{mod} per FTF combined with mean S_{mod} per adjunct across schools in Spring 2014. The mean 'combined break-even' for direct cost per FTF and per adjunct is shown as: solid black line – adjuncts teaching one course; dotted black line – adjuncts teaching two courses.

Charge E. Scheduling and space issues created by one and two day a week classes

Method: The 2013 Space Planning & Programming Report by Rickes Associates, Inc. and the 2013 Campus Facilities Master Plan were studied to determine the extent of scheduling and space issues.

Link to the 2013 Space Report:

http://www.ramapo.edu/construction-projects/files/2013/10/Rickes-CFMP-SPP-Final-SUBMITTED-2013-September.pdf

Link to the 2103 Campus Facilities Master Plan:

http://www.ramapo.edu/construction-projects/files/2013/10/Campus-Facilities-Master-Plan-September-30-2013.pdf

Assumptions of the 2013 Space Planning & Programming Report by Rickes Associates, Inc.

- Assessments of space use and need for space were made for three scenarios:
  current (existing) space use and need based on Fall 2011 data
  near-term projected space use and need (assumed to be 2016)
  long-term projected space use and need (2021)
- Undergraduate enrollment does not change across the three scenarios
- Graduate enrollment increases across scenarios:
  near-term: increase of 250 FTE & long-term: increase of 500 FTE
- Projected long-term (by 2021) personnel increases
  (Table on page IV of Executive Summary; table on page of Chapter 4)
  full time personnel: 192
  part time staff: 6
  adjuncts: 30 (30% over 2011 levels – needed to cover grad courses)
- Residence space was excluded

Projected increases in personnel by 2021 were obtained from each of Ramapo's four administrative areas (the Provost, the Chief Planning Officer, the Vice President for Institutional Advancement, and the President). The projections were (including part and full time):

President: increase of 5 personnel (from 8 to 13; Chapter 6: p. 10)
Provost and VPAA: increase of 226 personnel (from 818 to 1044; Chapter 6 p. 12)
Chief Planning Officer: increase of 23 personnel (from 179 to 202; Chapter 6: p. 14)
VP Institutional Advancement: increase of 5 personnel (from 24 to 29; Chapter 6: p. 15)

The above projected increases in personnel were used by the Campus Facilities Master Plan (September 30, 2013) to provide "a primary planning horizon" for a 10 year period (2011 – 2021). On page 13 of the Master Plan it states:

> "Initial personnel targets were collected from all of Ramapo's administrative areas. These targets suggest an approximately 25% increase in personnel, including faculty, staff and student workers. This includes a potential increase of nearly 200 full-time faculty and staff and approximately 70 adjunct positions……. The personnel figures are optimistic targets for growth, not exact projections, and *should be reviewed and refined as time progresses*." (emphasis added)
>
> Further details regarding enrollment and personnel projections are provided in Rickes Associates' full report: Campus Facilities Master Plan: Space Planning and Programming (2013)."

According to Provost Barnett, the projected increase in personnel were hypothetical estimates of total personnel needed assuming that there was unlimited funding, not actual estimates of lines to be added. Thus both the 2013 Space Report's and the Campus Facilities Master Plan near-term (by 2016, which is nigh upon us) and long-term (by 2021) need to be revisited once more realistic data for potential increases in personnel are developed.

Based on current (i.e. 2011) needs and usage, the report concluded that, with the exception of general purpose classrooms (lecture rooms), all campus space categories currently lacked sufficient space. Offices had the greatest need for additional space, both currently and in the future. The report recommended a reduction in the number of general purpose classrooms:

> "A total of 51 general purpose classrooms are recommended, or seven fewer than the 58 that currently exist." (Chapter 5: p. 16)

Based on class meeting distribution data for Fall 2011 (taken from Figure 5a on page 8 of Chapter 5 of the 2013 Space Report), the number of classes scheduled during the day across the week shows a markedly unbalanced pattern. Monday and Thursday have the highest density of class meetings, with roughly equal numbers of classes held on each day (Figure E-1). The number of class meeting Tuesday and Friday are lower, with a notable drop in class meetings of Friday (Figure E-1). Wednesday, which is the major meeting day for the college has a much reduced number of class meetings compared to the other four days (Figure E-1). A similar trend is present class meeting scheduled for evenings, with Monday and Thursday having the greatest number of class meetings, followed by Tuesday evening. (See Figure 14a on page 14 of the 2013 Space Report. The number of Wednesday evening class meetings are roughly half the number offered on Monday and Thursday. Class meetings on Friday evenings are almost, but not quite, non-existent.

The current scheduling is clearly unbalanced. A more balanced schedule of courses would allow for a more efficient use of general purpose classrooms as well as increasing the perception of how often they were used.

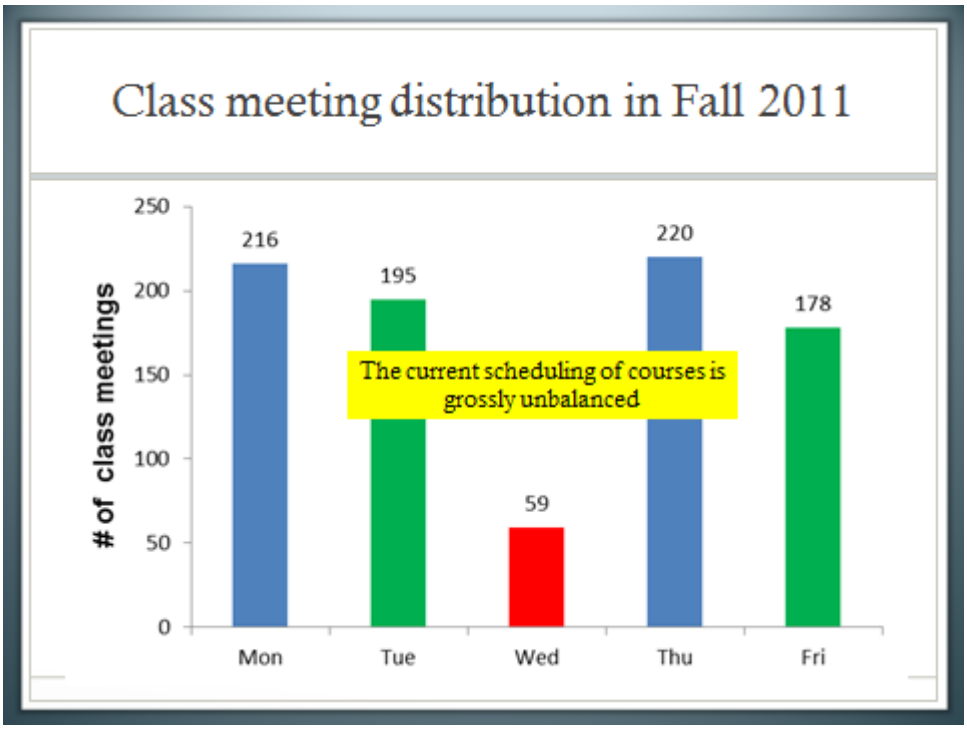

Figure E1. The distribution on the number of classes meeting on the five week days in Fall 2011.

The Space Report concludes that offices currently had the greatest need for more space, both now and in the long-term. However, we question the estimates for the projected need for office space in the near-tern and the long-term, which is based on a projected 192 additional full time personnel by 2021. As noted by the Provost (see above), this increase in personnel is essentially a "wish list' and not an actual estimate of increase in personnel. Thus the projected need for office space in the near-term and long-term greatly exceeds what will actually be required. Thus the TF recommends that the Space Report's conclusions about space needs in the near-term and long-term also need to be revisited**,** particularly in terms of projections about the need for office space. The TF further recommends that space utilization analyses should include the utilization of general purpose classrooms for purposes other than class meetings. They are frequently used by student groups for meetings and for other meetings as well (convening group, make up exams, etc.).

In addition, the adoption of a new curricular model will likely alter the utilization pattern of general-purpose classroom space. Thus the Space Report's conclusions about the need for general classroom space will no longer hold. The TF recommends that, prior to any decision being made about changing the number general-purpose classrooms on campus, the need for general purpose-classrooms be reassessed once the new curricular model has been implemented.

Charge F. Appropriateness of class scheduling for facilitation of student learning, particularly in 100 and 200 level classes

Method: The TF members first took an informal survey of our units to see if the faculty perceived a pedagogical need for thrice a week classes. (Currently this is only available for lecture/lab courses, where the lecture typically has two meetings and lab is the third class meeting time.) A small minority of faculty felt this was a pressing pedagogical need. Most faculty felt the current schedule of Ramapo's classes was not an impediment to pedagogy.

Next, the TF looked to educational scholarship. While there is actually a great discussion of scheduling (also called time tabling) at the secondary level, there is not much discussion at the level of higher education. To quote Duncan Hill, one scholar who has studied college and university time tabling:

> "A search through existing literature about tackling the problems presented by course scheduling reveals a great deal of work in the areas of mathematics and computer science. This work has been of great value as it has provided the groundwork for the development of automated course-scheduling software that is typically used by university timetabling officers. What these approaches do not address, however, are the nature and types of constraints that limit the flexibility of a course timetable. In fact, in a search through the ERIC (Educational Resources Information Center) database and a general social sciences search on Scholar's Portal, I found *almost no literature dealing with timetabling from an organizational or theoretical perspective*" (Hill 2008, italics added).

Currently, educational psychology indicates that when college students space their study sessions apart, they have better learning outcomes (Willingham 2002). However, we are not aware of any body of evidence connecting how often college classes meet with student learning. Distributed practice (spaced repetition, spaced practice) pedagogies can be applied to classes meeting once, twice, or thrice each week. Thus the hypothesis implied in charge F (that students will learn more effectively if they do not take courses in a block (once a week), but instead meet for shorter duration classes of twice or thrice a week) is not supported.

However, in more general considerations of scheduling, the paramount importance of flexibility is emphasized by several authors in different sorts of studies. This flexibility includes: when classes are scheduled to meet; how often; in online or in person or hybrid formats; in compressed or traditional schedules. Perhaps the most important aspect of flexibility is the *pedagogical flexibility* of the individual faculty member, to use the teaching techniques appropriate to the course, including the meeting format (so that a thrice a week class, for example, will likely utilize a different pedagogical toolkit than a block class).

Appendix: A brief review of scholarship on 3 and 4 credit classes

We reviewed the past decade of higher education scholarship to find if 3 or 4 credit classes have particular costs or benefits.

In the past ten years, most of the research seems focused on distance and e-learning and how to ensure that courses offered in those media are comparable to traditional courses. There was no sustained discussion of "3 versus 4 credits."

Presently, the discourse is about the work of Amy Laitinen, author of Cracking the Credit Hour, a 2012 report for the New America Foundation. The entire report can be found here: http://higheredwatch.newamerica.net/sites/newamerica.net/files/policydocs/Cracking_the_Credit_Hour_Sept5_0.pdf

Laitinen argues that the Carnegie credit hour is an outmoded, old fashioned tool that does not measure learning. It is particularly outdated in light of both online education and the spiraling cost of higher education; Laitinen calls the credit hour an "illusion" that we all have collectively agreed to believe because so many policies and habits revolve around it. Laitinen is not alone. The current debate is that rather than measure instructional time, we ought to be measuring learning – and there could be a variety of ways to do that.

Responses to Cracking the Credit Hour are quite mixed. The credit hour and its future is now dominating the higher education discussion. The issue of "3 vs. 4 credit" classes appears to be moot. In the short term, we must meet the demands of the accreditation. In the long term, Ramapo might need to adopt more flexible understandings of instructional hours, as needs be. (Hybrid classes, already on offer, might be a model here. as well as meaningful portfolios for FPLEX credit, something already in place.)

Charge G. The perception of low academic rigor and lack of flexibility within the curriculum.

This charge has the following dimensions:

a. perception of low academic rigor
   – GPA
   – student perception of rigor

b. flexibility within the curriculum

G. The perception of low academic rigor - GPA

Method:

The TF sought to answer two main questions: 1) can we identify any systematic pattern in Ramapo's mean GPA over time? 2) are there significant differences in the level and change in mean GPA by individual majors? Although it is impossible to establish any definitive causal link between grades, grade distributions, student learning and rigor, the data may provide insights about grading norms and trends across the college and majors.

1. Can we identify any systematic pattern in Ramapo's mean GPA over time?

Fitting an unweighted mean GPA to a time-trend regression (estimated from 2004 through 2014), indicated a 0.012 percentage point increase in mean GPA over the ten-year period. However, two important qualifications are in order: First, regression estimates should be based on a minimum of 30 observations; our estimates are only based on 11 observations, inclusive. Second, the time-trend becomes statistically insignificant (i.e., "flat") if observations from 2004-2006 are omitted from the model. Thus, the mean GPA for all grades awarded in an academic year has been constant since 2007.

2. Are there statistically significant differences in the level and change in mean GPA by individual major?

A simple examination of the median GPA by major over the 10-year period suggests a highly "bounded" range of between 3.08 to 3.24. While there is great variability in mean GPA across majors for any individual year, the median GPAs are clustered within the previously-noted bounds. Furthermore, when the universe of observations are combined into a "pooled" dataset (i.e., 42 majors multiplied by 10 years of data per major), the results indicate no statistically significant increase in mean GPA points from 2004 through 2014. We should note that although the average Ramapo GPA was about 3.15 (equivalent to a letter grade of "B") across the ten-year time period, this overall average fails to capture significant mean grade differences between introductory and upper-level courses within individual majors. While we had access to this data for an individual **major, we did not explore this issue in any detail due to significant time constraints.**

Table G1. Statitistical data for Mena GPA overran eleven year period (2004 -2014)

	Mean	Std. Dev.	C/V	Median	Max.	Min.
2004	3.10	0.22	0.07	3.08	3.81	2.63
2005	3.11	0.19	0.06	3.10	3.62	2.75
2006	3.13	0.18	0.06	3.13	3.59	2.71
2007	3.13	0.17	0.05	3.13	3.52	2.63
2008	3.19	0.20	0.06	3.23	3.71	2.48
2009	3.19	0.20	0.06	3.19	3.66	2.67
2010	3.25	0.22	0.07	3.24	3.79	2.80
2011	3.22	0.19	0.06	3.21	3.80	2.78
2012	3.20	0.21	0.07	3.18	3.63	2.72
2013	3.16	0.23	0.07	3.19	3.57	2.35
2014	3.19	0.26	0.08	3.17	3.94	2.72

G. The perception of low academic rigor – student perceptions

Method: The TF analyzed data from the National Survey of Student Engagement (NSSE), which includes a variety of measures that speak to student perceptions of academic rigor.

The NSSE includes numerous indicators of student engagement. One cluster of such measures is combined to create what NSSE refers to as a "benchmark." Benchmarks include a combination of indicators, in this case, survey questions, that speak to a particular concept. In this portion of our charge, we look at one benchmark in particular: Level of Academic Challenge.

The TF was provided with summary data that track student perceptions of rigor over time. Data were available for the following years: 2003, 2005, 2006, 2008, 2010, and 2012. To determine whether the number of credits assigned to courses had affected student perceptions of rigor, data were divided into two groups. This was done separately for first-year and senior students.

For first-year students, students who had matriculated prior to the Curriculum Enhancement Plan (CEP) were grouped together (2003 and 2005) as were students who started *after* the College switched to all courses consisting of 3.6 credits plus the Curriculum Enrichment Component (CEC; 2006-2012.)

For senior students, we also constructed two groups. Seniors who graduated entirely pre-CEP were group together (2003 and 2005) and those who graduated having only experienced the CEP system were group together (2010 and 2012.) To clarify, seniors graduating on a four-year schedule in 2010 would have been first-years in 2006, the first year of the CEP's full implementation.

We utilized t-tests to see whether there were statistically significant differences between pre-CEP and CEP first-years and seniors. T-tests were selected because the independent variable (pre-

CEP vs. CEP students) is a dichotomy (2-category variable - nominal level of measurement) and the dependent variable was a ratio-level variable (percentage of students who “often” or “very often” reported that they were challenged academically.)

Please note that the data provided to the TF made no reference to the sampling method utilized to select cases. Only in instances where probability samples are utilized is hypothesis testing using t-tests appropriate. Therefore, we will present both descriptive as well as inferential results. A conservative reading of the data would rely on the descriptive statistics.

Results demonstrate that among both first-years and seniors, no statistically significant difference was detected between pre-CEP and CEP students. The percentage of students reporting that they “often” or “very often” felt challenged academically rose for both groups, but the change is not statistically significant. Furthermore, if we compare Pre-CEP first-years to Pre-CEP seniors, differences in the percentages are not statistically significant, neither are they significant if we compare pre-CEP and CEP first-years and seniors. We conclude that, statistically, there is no difference between first year and senior students’ self-reporting of academic challenge pre-CEP and after the switch to CEP.

	FY (PRE-CEP)	FY (CEP)	SR (PRE-CEP)	SR (CEP)
Academic Challenge	*53.2 N = 297*	*54.5 N = 1263*	*54.6 N = 235*	*57.8 N = 766*

We also compared the perceptions of ‘Academic Challenge’ of first year students to those of seniors over the five NSSE surveys (2003 – 2012). The percentage of seniors who reported that they were challenged academically “often” or “very often” was slightly, but significantly, higher (56.4%) than the percentage of first year students (54.0%) (2-tailed t-test; prob = 0.027). In other words, seniors perceive that they are more challenged academically than do first year students.

Individual indicators of the Academic Challenge benchmarks are also available. See the following website for more information: http://nsse.iub.edu/html/engagement_indicators.cfm. It should be noted that the benchmarks and indicators for NSSE changed for the most recent administration in 2014 and do not match perfectly with the benchmarks from the above 2002-2012 data. The two comparison groups of institutions for the following analyses are Mid-East Public Colleges, and other schools in our Carnegie Class (Master’s-Medium.)

Among first-year students, Ramapo students reported having more of the following assignments compared to first-year students at peer schools. These items have significantly higher means (i.e.

indicate more rigor) and effect sizes greater than 0.3 (which NSSE asserts is a meaningful result.) Associated benchmarks are noted where applicable.

- Wrote papers up to 5 pages
- Wrote papers between 6 and 10 pages
- Total estimated number of assigned pages of student writing

Other indicators of rigor were also higher for Ramapo College first-years relative to other groups of schools, but the effect sizes were not as large (and, therefore, may not be meaningful.)

- Coursework emphasizes: Evaluating sources of information (Higher Order Learning)
- Coursework emphasizes: Forming a new idea from various pieces of information (Higher Order Learning)
- Connected learning to societal problems or issues (Integrated Learning)
- Included diverse perspectives in course discussions or assignments (Integrated Learning)
- Wrote papers 11 pages or more

Among first-years, only one Academic Challenge item was significantly lower than comparison groups (but the effect size was small.)

- Applying facts, theories or methods to practical problems or new situations (Higher Order Learning)

To summarize, then, Ramapo first-year students perceive their experiences as more academically challenging than do their peers at similar institutions.

The picture for seniors is less clear-cut. Some indicators of rigor are significantly higher than the comparison groups of schools. However, none of the effect sizes are greater than 0.3, so the results may not be meaningful Applicable benchmarks are noted. Ramapo more often reported doing the following than their peers reported:

- Wrote papers up to 5 pages
- Wrote papers between 6 and 10 pages
- Estimated number of assigned pages of student writing
- Percentage of course preparation spent on assigned readings
- Connected learning to societal problems or issues (Integrated Learning)
- Included diverse perspectives in course discussions or assignments (Integrated Learning)

However, other indicators of Academic Challenge do have both lower means and meaningful effect sizes. Ramapo seniors registered lower responses than their peers on these indicators:

- Institution emphasizes spending significant amounts of time studying and on academic work
- Time spent preparing for class

Other measures of Academic Challenge have consistently lower means, but small effect sizes, indicating that results may not be meaningful.

- Developed skills analyzing numeric or statistical information
- Reached conclusions based on your own analysis of numerical information (Quantitative Reasoning)
- Used numerical information to examine a real-world problem or issue (Quantitative Reasoning)

It is somewhat difficult to reconcile student reports of being assigned above average amounts of material with their perception that the institution doesn't emphasize time spent on work. Nevertheless, there appears to be a need to address perceptions of rigor among seniors. It also appears that there is a need for upper-level students to be exposed to opportunities to practice quantitative reasoning, regardless of discipline.

Recommendation: We conclude that switching from a mix of 3 and 4-credit classes to a uniform 3.6-credit model with CEC did not harm students' perceptions of the rigor of courses, and may even have created a very slight increase in perceived rigor; both from pre-CEP to CEP and between first-year and senior students. We extrapolate from the above, albeit very limited, data that student perceptions of rigor are not strongly related to credit hours, but may be related to more time spent in the classroom. Therefore, we recommend that the College transition to a full 4-credit hour model as it is beneficial in already mentioned aspects, and is unlikely to lower perceptions of rigor among students.

Based on the 2014 NSSE data, first-year students at Ramapo College, on average, perceive that their courses are more rigorous along a number of dimensions, relative to students at peer institutions. Seniors report being assigned many writing assignments, but this does not appear to inform their perception of an institutional focus on rigorous coursework. Focus groups with senior students may be one way to further understand these results so that appropriate interventions can be suggested.

With respect to increasing perceptions of rigor among Ramapo College students, it is recommended that NSSE data be looked at very carefully. Training for faculty should focus on pedagogical strategies that speak to indicators that may actually need improvement, rather than a wholesale focus on "increased rigor." In addition, programmatic assessment cycles could be utilized to determine whether syllabi list assignments that are in line with the ARC descriptions for course levels (100, 200, etc.)

G. Lack of flexibility within the curriculum

Data on the number of 'degrees conferred by majors and minors' for 2004 to 2014 were provided by Institutional Research. Moving to the CEP model resulted in a notably significant rise in the percent of students taking one minor ($p < 0.001$) and a slight, but significant ($p = 0.002$) increase in the percent of students taking two minors (Figure G1). There was no significant change in the percent of graduates taking two majors. As this change was present at the end of the first year that CEP was implemented (Figure G1), it indicates that students who graduated with only one year of exposure to CEP were significantly influenced by the new curricular structure. The increase in students taking minors under the CEP model is probably largely due to the decrease in the number of courses required by minors that was associated with the adoption of the CEP model. Thus the TF concludes that, rather than reducing lack of flexibility, the move to the CEP model resulted in increased flexibility in the curriculum.

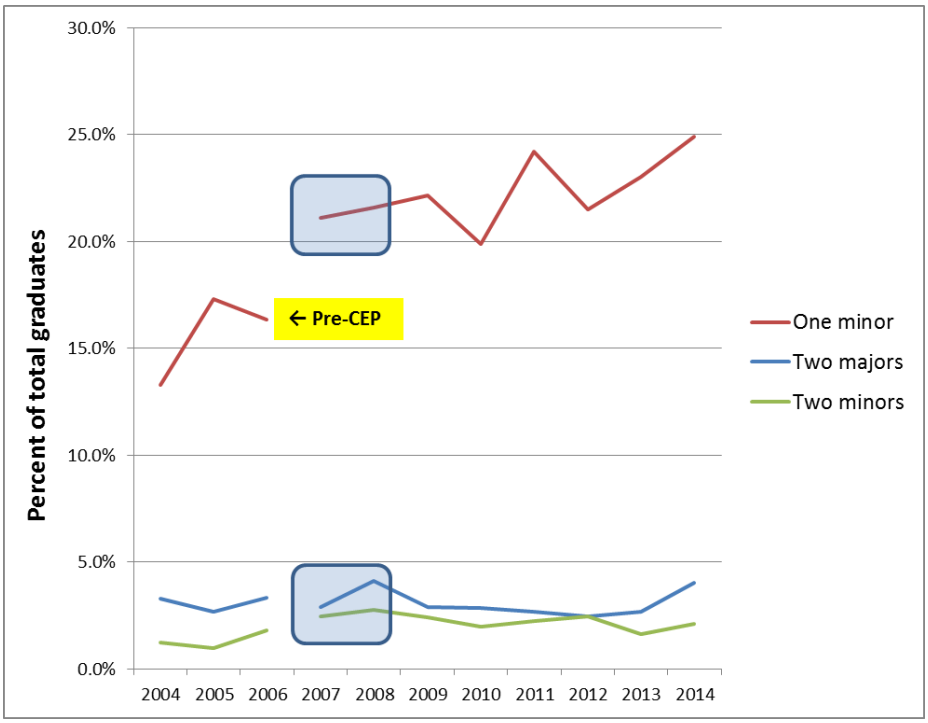

Figure G1. The percent of total Ramapo students graduating per year with one minor, two minors, or two majors at Ramapo College (2004–2014). The shaded areas represent a period when graduates had taken at least two years of courses in the pre-CEP curricular structure.

Charge H. The low level of academic engagement demonstrated by our students

Method: The TF analyzed data from the National Survey of Student Engagement (NSSE), which includes a variety of measures that speak to student perceptions of academic engagement along a number of dimensions.

Charge G speaks to the NSSE benchmark for Academic Challenge, so we will not reiterate those results here, but will focus on the remaining benchmarks, which include: Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment.

The TF was provided with summary data that track student perceptions of academic engagement over time. Data were available for the following years: 2003, 2005, 2006, 2008, 2010, and 2012. To determine whether the number of credits assigned to courses had affected student perceptions of academic engagement, data were divided into two groups. This was done separately for first-year and senior students.

For first-year students, students who had matriculated prior to the Curriculum Enhancement Plan (CEP) were grouped together (2003 and 2005) as were students who started *after* the College switched to all courses consisting of 3.6 credits plus the Curriculum Enrichment Component (CEC; 2006-2012.)

For senior students, we also constructed two groups. Seniors who graduated entirely pre-CEP were group together (2003 and 2005) and those who graduated having only experienced the CEP system were group together (2010 and 2012.) To clarify, seniors graduating on a four-year schedule in 2010 would have been first-years in 2006, the first year of the CEP's full implementation.

We utilized t-tests to see whether there were statistically significant differences between pre-CEP and CEP first-years and seniors. T-tests were selected because the independent variable (pre-CEP vs. CEP students) is a dichotomy (2-category variable - nominal level of measurement) and the dependent variable was a ratio-level variable (percentage of students who "often" or "very often" reported that they were engaged academically.)

Please note that the data provided to the TF made no reference to the sampling method utilized to select cases. Only in instances where probability samples are utilized is hypothesis testing using t-tests appropriate. Therefore, we will present both descriptive as well as inferential results. A conservative reading of the data would rely on the descriptive statistics. Based on t-tests of differences in the proportions pre-CEP and CEP, no statistically significant changes for first-year students in any of the engagement indicators were detected. The percentage of first year students

	FY (PRE-CEP)	FY (CEP)	SR (PRE-CEP)	SR (CEP)
Active Learning	***40.8 N = 300***	***43.4 N = 1354***	***44.4 N = 240***	***51.8 N = 807***
Faculty Interaction	***37.9 N = 298***	***39.4 N = 1299***	***41.1 N = 239***	***47.1 N = 785***
Enriching Experiences	***26.4 N = 173***	***25.7 N = 1228***	***36.4 N = 109***	***40.2 N = 749***
Supportive Environment	***60.3 N = 293***	***59.9 N = 1216***	***54.5 N = 236***	***57.0 N = 739***

who reported that their coursework included Enriching Education Experiences "often" or "very often" dropped very slightly (-0.7 percentage points), as did the percentage for Supportive Environment (-0.4 percentage points.) from pre-CEP to CEP, as did the percentage for Supportive Environment (-0.4 percentage points.) However, the percentage of students who reported that their coursework had Active Learning and Faculty Interaction increased (by 2.6% and 1.5% respectively.)

In summary, CEP benchmarks for engagement remained relatively unchanged relative to pre-CEP levels for first-year students.

Among Seniors, the increase in perceived Active and Collaborative Learning was statistically significant (in both 1 and 2-tailed tests.) On all of the benchmarks, descriptive percentages increased after the change to 3.6 credit courses plus the course enrichment component, indicating that senior student engagement benefitted somewhat from the changes that were implemented.

The perception of academic engagement among Ramapo seniors was statistically significantly higher than it was among first year students based on the 2003 – 2012 NSSE data. Perceived 'Active and Collaborative Learning' was statistically significantly higher among seniors (48.6%) than in first year students (42.5%) [2-tailed t-test; $p = 0.0006$]. A statistically significantly higher percentage of seniors (40.1%) also reported 'Enriching Educational Experiences' than did first year students (25.8%) [2-tailed t-test; $p < 0.0001$].

Individual indicators of the Academic Engagement benchmarks are also available. See the following website for more information: http://nsse.iub.edu/html/engagement_indicators.cfm. It should be noted that the benchmarks and indicators for NSSE changed for the most recent administration in 2014 and do not match perfectly with the benchmarks from the above 2002-2012 data. The new benchmarks are as follows: Learning with Peers, Experiences with Faculty,

and Campus Environment. The two comparison groups of institutions are Mid-East Public Colleges, and other schools in our Carnegie Class (Master's-Medium.)

The most recent NSSE data (2014) provide a mixed picture of students' perceptions of academic engagement. Among first-year students, two measures were found to be statistically higher than comparison groups *and* have meaningful effect sizes. They do not appear to be tied to a particular benchmark in the 2014 NSSE.

- Gave a course presentation
- Course included a community-based project

Other items for first-year students were found to have lower means than comparable institutions, but the effect sizes were small, and therefore may not be meaningful. Benchmarks are noted if the measure is tied to one.

- Plans to study abroad
- Institution provided support for your overall well-being, e.g. recreation, health care, counseling, etc. (Supportive Campus Environment)
- Asked another student to help you understand course material (Learning with Peers)
- Prepared for exams with other students (Learning with Peers)

Not all literature on student learning in higher education agrees that studying with peers is beneficial. For instance, Arum and Roksa (2011) found in their book, Academically Adrift: Limited Learning on College Campuses, that students who studied with other more often actually scored less well on the Collegiate Leaning Assessment (CLA).

Among seniors, the following measures were found to be statistically higher than comparison groups *and* have meaningful effect sizes (greater than 0.3). Under the new NSSE, these do not appear to speak to particular benchmarks, but many reflect high impact pedagogical practices as specified by the AAC&U.

- Gave a course presentation
- Courses include a community-based project
- Participate in an internship, co-op, field experience, student teaching, or clinical placement
- Complete a culminating senior experience - e.g. capstone
- Hold a formal leadership role in a student organization
- Participating in co-curricular activities

Additional items also produced significantly higher means, but with smaller effect sizes.

- Talked about career plans with a faculty member (Experiences with Faculty)
- Discussed course topics with a faculty member outside of class (Experiences with Faculty)
- Discussed academic performance with faculty member (Experiences with Faculty)
- Attending events that address important social/economic/political issues (Supportive Campus Environment)

The next group of indicators is also derived from senior student data, and produced significantly lower means with meaningful effect sizes. Both measure the Supportive Campus Environment benchmark. Seniors report lower means than their peers do on these indicators:

- Quality of interactions with academic advisors (Supportive Campus Environment)
- Quality of interactions with other administrative staff and offices, e.g. registrar, financial aid, etc. (Supportive Campus Environment)

Finally, Ramapo seniors also have lower means than their peers for this measure of engagement, but the effect size is small (meaning it may not be meaningful):

- Institution provides support for your overall well-being, e.g. recreation, health care, counseling, etc. (Supportive Campus Environment).

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