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Collaborations among Tertiary Organizations: State of the Art

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# Collaborations among Tertiary Organizations: State of the Art 

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Given the rapidly changing landscape of higher education, its ever increasing costs, and the uncertain global economic climate, collaborations ${ }^{1}$ are increasingly cited as a solution to many of the challenges faced by colleges and universities today. Consortia are seen as a way to expand resources, enhance curricular and extra-curricular offerings, and reduce costs through the sharing of services, facilities, and purchasing power. Ideally, by building these strategic partnerships, institutions are able to create a synergistic effect in which the consortium offers greater resources and opportunities - optimally at the same or even reduced costs - than any single school could provide to its students, faculty, and staff on its own.

According to Anthony Marx, former President of Amherst College, "[a]s higher education's business model, rising tuition, growing need for financial aid, reliance on less certain public financing, investment earnings and philanthropy, comes under increasing pressure, the advantages of collaboration are ever more apparent" (Reyes, 2010). Yet, despite the importance placed on the idea of cooperation among tertiary institutions and the possible benefits of these relationships, my survey suggests there is surprisingly little information about how to form these partnerships and guide them to a successful and readily sustained operation. Equally as significant is the lack of shared knowledge about the problems and pitfalls inherent in uniting different institutions with individual missions and values. Without access to this type of information, institutions that are considering forming consortial relationships cannot benefit from the collective wisdom of experienced collaborators. Indeed, this lack of transparency may be

[^0]partly to blame for the fact that "consortia are an underutilized resource in responding to the difficult challenges facing higher education" (Dotolo \& Horgan, 2009).

This lack of reliable information can prove problematic. With literary license, Roger Clark, former director of the Committee on Institutional Cooperation described how " $[\mathrm{a}]$ consortium can be a field of dreams. If it's well designed and cared for, and if people are welleducated about its use and the rules governing the game, who knows what star players might appear and what marvelous games might be played" (Peterson, 1999). In this paper, I lay out a cartography of the domain in the hope of illuminating the "rules" that may promote successful collaborations in the future while lessening the likelihood of pursuing false dreams.

Before success can be defined in higher education collaboration, it is important to understand the context of intercollegiate collaboration today. There are "fewer than 1,500 academic-focused consortia in higher education" (Minearo, 2009), with only 60 groups maintaining active membership in the Association for Consortial Leadership, an organization whose mission is to "promot[e] and suppor[ t$]$ higher education partnerships through professional development, resource sharing and program enhancement" (Association for Consortial Leadership, 2011). I surveyed seven of these consortia, comprised of 27 schools ${ }^{2}$, and located around the United States (Table 1) in groups with two to seven member institutions.

| Name of Consortium | Region | \# of Member Institutions |
| :--- | :--- | :---: |
| Claremont University Consortium | Pacific | 7 |
| Five Colleges, Incorporated | Northeast | 5 |
| Bi-College Consortium | Mid-Atlantic | 2 |
| The Colleges of the Fenway | Northeast | 6 |
| Tri-College Consortium | Mid-Atlantic | 3 |
| Five Colleges of Ohio, Incorporated | Mid-West | 5 |
| Quaker Consortium | Mid-Atlantic | 4 |

Table 1: Consortial Relationships Explored

[^1]In evaluating these arrangements, I examined how these consortia are organized, operated, and experienced by members of each school community.

## Methods

To select these consortial arrangements, I first surveyed general information about higher education collaborations from the Association for Consortium Leadership (ACL) website, articles in the online Consortia Magazine, and the minutes from the Cultures of Cooperation: The Future Role of Consortia in Higher Education Conference, held in 1999. After using these sources to assess the range of consortia and the state-of-affairs across the field, I selected the seven representative groups for further examination.

As no comprehensive study has been done on these various collaborations, I found information about these groups in the literature and publicity materials that exist for both the individual institutions and the consortia. I also consulted popular media, school newspapers, and/or higher education publications for additional information about how these collaborations are experienced and viewed by others.

After my survey, I distinguished collaborations on the basis of their missions.
Comprehensive Consortia offer a range of expanded academic and extra-curricular options, supported by a full spectrum of internal support services. Focused Collaborations target one or two main areas for enhancement, thus consolidating their efforts around finite objectives and eliminating the need for widespread support protocols.

|  | Comprehensive Consortia (CC) Must meet criteria from all 6 categories | Focused Collaborations (FC) <br> Must meet criteria from at least 2 categories |
| :---: | :---: | :---: |
| (1) Academic Integration | Must contain 2 or more of the following: <br> - expanded curricular options <br> - joint programs/certificates <br> - intercollegiate departments | May contain some elements of academic integration, but not required |
| (2) Shared Academic Resources | Must contain a joint library system <br> May contain at least one other shared academic facility <br> (i.e. art museum, research lab) <br> May also contain shared equipment to facilitate academic research (ex. MRI) | May contain a joint library system, shared academic facility, and/or equipment that facilitates academic research, but not required |
| (3) Logistical Support Services (Academic) | Must operate a consolidated database of courses offered at the member institutions <br> Must have a protocol for cross-registration <br> Must offer full transfer of credits among institutions and grades must appear on the home institution transcript <br> Must make efforts to synchronize calendars | May operate some logistical support services, but not required |
| (4) Logistical Support Services (Student Life) | Must offer free shuttle service that provides full access to academic and extra-curricular options (if necessary due to distance) <br> Must offer dining options on multiple campuses (though this may be limited to certain hours or dining facilities) <br> May also offer joint services and facilities (i.e. health center, campus mail) <br> At least one member institution must be involved in overseeing these operations. | Transportation is: (1) not required for use of the consortium, (2) outsourced to another company, or (3) arranged by students, at their expense |
| (5) Integrated Campus Life | Must offer at least 3 of the following: <br> - combined extra-curricular groups <br> - joint student council <br> - shared intramural sports <br> - joint publications (i.e. student paper) <br> - shared calendar showcasing events and performances on multiple campuses | May offer some elements of integrated campus life, but not required. |
| (6) Organization | Must be run by either a Board of Directors/Trustees or have at least one joint operations committee <br> May be incorporated as a non-profit organization <br> May also have a shared operating budget | Is not run by a Board and has no joint operations committee <br> Is not incorporated as a non-profit organization <br> May have a shared operating budget |

Table 2: Features of Comprehensive Consortia versus Focused Collaborations

After establishing the two categories, I created an index (Table 2) to explore both the depth and breadth of the relationships in each of the seven consortia. The six variables within both categories measure the extent of: (1) Academic Integration, (2) Shared Academic Resources, (3) Logistical Support (Academic), (4) Logistical Support (Student Life), (5) Integrated Campus Life, and (6) Organization. This index was used to explore the variations in consortial relationships based on two distinct purposes: 1) to examine the extent of the factors that support the stated consortial goals, and 2) to establish an index that can be used to measure the level of integration in other higher education collaborations. The criteria for a

Comprehensive Consortium (Table 3) were applied to each of the seven groups in the survey to make the final designations. Each group had to meet the criteria of at least two categories to be considered a Focused Collaboration and all six categories to be considered a Comprehensive Consortium.

|  | (1) <br> Academic <br> Integration | (2) <br> Shared <br> Academic <br> Resources | (3) <br> Logistical <br> Support <br> (Academic) | (4) <br> Logistical <br> Support <br> (Student Life) | (5) <br> Integrated <br> Campus <br> Life | (6) <br> Organization | Category <br> (CC or FC) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Claremont <br> University <br> Consortium |  |  |  |  |  |  |  |
| Five <br> Colleges, <br> Inc |  |  |  |  |  |  |  |
| Bi-College <br> Consortium |  |  |  |  |  |  |  |
| Colleges of <br> the Fenway |  |  |  |  |  |  |  |
| Tri-College <br> Consortium |  |  |  |  |  |  |  |
| Five <br> Colleges of <br> Ohio |  |  |  |  |  |  |  |
| Quaker <br> Consortium |  |  |  |  |  |  |  |

Table 3: Taxonomy for Classifying the Consortial Relationships

In the exploration of these collaborations, I paid particular attention to issues of crossenrollment, registration procedures, joint educational initiatives, physical proximity and campus access, shared campus facilities and services, and integrated campus life. These criteria indicate the strength of the ties that exist among the individual institutions, the types of relationships that have developed, as well as the ease with which members of the combined community can draw on consortial resources. When available, I also examined the mission statements of the institutions as well as public comments made about the successes, struggles, or changing nature of the relationships; of particular interest is an understanding of how each institution or group defines a successful outcome for itself and how this aligns with their stated goals for the partnership.

## The Comprehensive Consortia: The CUC \& Five Colleges, Inc.

The Claremont University Consortium (CUC) in California and Five Colleges, Incorporated in Massachusetts have combined resources to offer comprehensive services to members of each shared campus community, including curricular offerings, academic resources, joint facilities, and shared campus services. Part of the core identities of both groups is the perception that their operations and achievements should help others in higher education to imagine, create, and execute similar all-inclusive collaborative agreements.

In addition to their shared goal of serving as a standard for other higher education consortia, these groups have several other factors in common. Both long-standing relationships have five or more member institutions, including several liberal arts colleges, at least one women's college, and a research university. Each has worked to found one or more of their member institutions and each has a corporate structure in place to oversee joint operations.

## The Claremont University Consortium

The Claremont University Consortium was founded in 1925 to fulfill the vision of then Pomona College President James Balisdell. He believed that the Oxford University model of clustering multiple campuses around common facilities would "preserve the inestimable personal values of the small colleges while securing the facilities of the great university" (Claremont University Consortium, 2010). Today, this "Oxford of the orange groves" (Peterson, 1999) in Southern California, is comprised of 5 colleges and 2 graduate universities (Table 4) and home to more than 7,000 full-time students, 700 professors, and 1,600 staff (Claremont University Consortium, 2010). Incorporated since 2000, it is run by a CEO, Board of Overseers and 350 full-time employees, with an operating budget of more than $\$ 38$ million annually (Claremont University Consortium, 2010). According to the Harvey Mudd website, "[t]he assets of The Claremont Colleges total more than $\$ 4.8$ billion, including [...] over 175 buildings, and 550 acres of land (Harvey Mudd College, 2010).

| Institution | Founded | Student Body |
| :--- | :---: | :---: |
| Claremont Graduate University | 1925 | 2,045 |
| Claremont McKenna College | 1946 | 1,261 |
| Harvey Mudd College | 1955 | 771 |
| Keck Graduate Institute | 1997 | 95 |
| Pitzer College | 1963 | 1,080 |
| Pomona College | 1887 | 1,560 |
| Scripps College | 1926 | 956 |

Table 4: Schools of the Claremont University Consortium
Each of the institutions created under the CUC umbrella after 1925 was a collaborative effort of the existing schools, yet "all members of the consortium are autonomous, and each has its own governing board and endowment" (Peterson, 1999). By working together to create institutions that meet specific goals and to fill in gaps in academic offerings, colleges and
universities with specialties have enhanced the consortium. For example, with its focus on math, science and engineering, Harvey Mudd is an ideal complement to the liberal arts and humanities focus of Pomona College. Access to shared co-ed campus life is likewise a benefit for the single-sex Scripps College.

One of the unique features of the CUC is the geographic distribution of the member institutions across a master campus. During the 1999 conference Cultures of Collaboration: The Future Role of Consortia in Higher Education, Pitzer College's president Marilyn Chapin Massey described how "the center of the [CUC] campus is the common library, from which no school is more than one or two blocks distant", making it "the cement of the consortium" (Peterson, 1999). In fact, the founding mission of President Balisdell was based on this ideal and all schools subsequently added to the CUC have been strategically located to ensure that the library remains the hub of the shared campus environment. Due to these pooled resources, " $[\mathrm{t}] \mathrm{he}$ library collection ranks third among the private institutions in California, behind only Stanford and USC, and it is clearly larger than any one of the schools could afford to own on its own" (Claremont University Consortium, 2010), with nearly two million volumes and more than 700 periodicals (Claremont Colleges Library, 2011).

The Pomona College website explains that "a walk of only a few minutes will take you from one [campus] to another" (Pomona College, 2010), ensuring the physical integration of the student bodies from all seven member schools. Ease of use, accessibility to resources, and the limited commute are key features of the CUC. Since the CUC was able to purchase the land surrounding the original Pomona College campus, they had unparalleled freedom to structure the physical environment of the consortium. Rather than bringing together a group of distinct schools that happen to share a single geographic setting, the CUC built a set of contiguous
campuses around the central library, thus ensuring combined campus life and services. The CUC schools currently occupy 320 of the 550 acres that they jointly own. According to the consortium documents, "the remaining 230 acres are reserved for colleges and professional schools that may be founded in the future" (Harvey Mudd College, 2010).

Since issues surrounding accessibility, transportation, and ease of use constitute an ongoing discussion in many of the other collaborations that I explored, the fact that all CUC institutions are interconnected cannot be discounted when looking at the distinct character of the collaboration. In fact, a May 2011 article in the Boston Globe showcased a research study exploring the importance of proximity in collaboration among researchers. This study found that " $[t]$ he continued importance of geography may seem counterintuitive in the era of Skype, iPhones, and other technologies that make it effortless and inexpensive to collaborate with people around the world. But location matters" (Johnson, 2011). The CUC illustrates the importance of geography in higher education collaboration as well. More than any other group in this study, The CUC is both defined and facilitated by the physical proximity of its member institutions.

According to the CUC website, "[e]ach year, students take roughly 600 courses at a campus other than their home campus - about 16 percent of the total courses offered" (Claremont University Consortium, 2010), though the percentage of students who are crossenrolled is not specified. An additional feature that facilitates the cross-registration of students from the CUC campuses is a unified online portal that provides information about all of the courses offered throughout the CUC; perhaps even more significant, "academic calendars and registrations procedures are coordinated to make cross-enrollment easy" (Pomona College, 2010). Further, the five undergraduate institutions work together to offer intercollegiate
departments like Africana Studies and Asian American Studies, along with five college programs in fields including American Studies and Media Studies (Pomona College, 2010).

Since all seven institutions are contained within a campus that is roughly one square mile (Scripps College, 2011), shared campus services are a significant component of the collaboration. Students from each school have access to 28 centralized resources, including student health services, and also benefit from shared campus security and physical plant maintenance. There are also reciprocal dining privileges at each of the undergraduate campuses (Claremont McKenna College, 2011).

|  | Features of the Claremont University Consortium |
| :--- | :--- |
| (1) Academic Integration | - Expanded curricular options (cross-registration in 600+ courses/semester) <br> - Joint programs (ex. American Studies, Media Studies) <br> - Intercollegiate departments (ex. Africana Studies, Asian American Studies) |
| (2) Shared Academic Resources | - Central library with 2 million volumes is campus hub; open access to <br> smaller campus library facilities and special collections <br> - Shared academic facility for research: Bernard Biological Field Station |
| (3) Logistical Support Services <br> (Academic) | - Online course database for all open undergraduate classes <br> - Fully integrated cross-enrollment procedures <br> - Integrated procedures for credit transfer to home transcript |
| (4) Logistical Support Services (Student <br> Life) | - Synchronized academic calendar |
| - Reciprocal dining privileges |  |

Table 5: The CUC as a Comprehensive Consortium

The CUC is explicit about its perceived role in higher education and its vision: "To Be
The Standard for Collaboration in Higher Education" (Claremont University Consortium, 2010).

The Chief Executive Officer of the CUC states that his group is "a model for the advantages gained through consortial collaboration" (Walton, 2010). Further, he describes how part of their mission is to "serv[e] as an international exemplar of the benefits to be gained through consortial practices in higher education" (Claremont University Consortium, 2010).

According to the CUC history website, the consortium exhibits a "level of cooperation is unmatched by nearly 100 college consortia in existence throughout the country" (Claremont University Consortium, 2010). The fact that the CUC campuses are contiguous is a key factor in this unparalleled integration. The CUC is an ideal exemplar (Table 5) of a consortium offering comprehensive services that successfully synergize the contributions of smaller in order to provide resources normally only seen in large universities.

## Five Colleges, Inc.

Comparable in significance to Claremont University Consortium in the area of higher education collaborations is the group of Five Colleges, Inc. This nonprofit organization was founded in 1965, "to formalize library collaboration and student course cross-registration" (Five Colleges, Inc., 2010). The five schools, located in Western Massachusetts (Table 6) are home to "2,200 faculty members teaching 5,300 courses to 28,000 students" (Five Colleges, Inc., 2003). The original relationship that grew into this consortium began in the 1950s, with Amherst, Mount Holyoke, Smith, and University of Massachusetts Amherst. In 1958, the four college presidents "appointed a committee to reexamine the assumptions and practices of liberal arts education" (Hampshire College, 2011). The result, known as The New College Plan, set forth the idea of creating "an experimental college founded with the assumption of shared resources" (Five Colleges, Inc., 2009). The new school, later known as Hampshire College, was officially founded in 1965, and "admitted its first students in 1970" (Hampshire College, 2011).

| Institution | Founded | Student Body |
| :--- | :---: | :---: |
| Amherst College | 1821 | 1,795 |
| Hampshire College | 1965 | 1,529 |
| Mount Holyoke College | 1837 | 2,333 |
| Smith College | 1871 | 2,588 |
| U Mass Amherst | 1863 | 21,373 |

Table 6: Schools of Five Colleges, Inc.

The consortium points to this event as an example of their "tradition of innovation" (Five Colleges, Inc., 2010) as well as an illustration of how well the schools work together. According to Optimizing the Consortial Advantage by 2020: Plan for Five Colleges, Incorporated, "the consortium is recognized as one of the oldest and strongest in higher education" (Five Colleges, Inc., 2010).

Today, according to their joint mission statement, "[t]he consortium facilitates intellectual communities and broad curricular and cocurricular [sic] offerings; affording learning, research, performance and social opportunities that complement the distinctive qualities of each institution" (Five Colleges, Inc., 2003). To reach this goal, the corporation operates with an annual budget of 6.15 million dollars (Five Colleges, Inc., 2003) and is overseen by a Board of Directors that brings together the presidents of the four colleges, the chancellor of the University of Massachusetts Amherst, the president of the University of Massachusetts system, and the Executive Director of Five Colleges, Inc. (Five Colleges, Inc., 2010). In total, there are more than 80 groups comprised of campus leaders, administrators, faculty, and staff who oversee operations and execute the agreements made by the consortium (Five Colleges, Inc., 2003).

Like the CUC, the cornerstone of Five Colleges, Inc. is the joint library system, which expands the educational resources available to students and faculty. According to the Five College, Inc. website, "[e]xtensive and long-standing cooperation among the libraries also gives researchers access to their combined strength, which currently totals some eight million
volumes" (2010). Access to this sizeable resource is facilitated by a joint online catalog, through which any enrolled student or faculty member can borrow books or access other resources from any of the campuses (Five Colleges, Inc., 2003). The Library website (2003) explains that students are also free to use the branch libraries at each of the five campuses; this option provides access to sixteen facilities, including a rare book archive and music lab. The entire library system is overseen by The Five College Librarians’ Council (FCLC), with representatives from each of the institutions, as well as the executive director of Five Colleges, Incorporated (Five Colleges, Inc., 2003). The library is another example of the strong corporate structure that ensures effective delivery of campus services and access to enhanced resources.

Another defining feature of this consortium is the access to enriched academic programs. The Strategic Plan for Five Colleges Incorporated explains that "[a]s a consortium, we offer much larger intellectual and pedagogical communities, even in subfields, than any single campus could offer" (2010). Together, the consortium hosts two combined departments (Astronomy and Dance), a combined major (Film Studies), and 13 certificate programs in topics including Buddhist Studies, Logic, and Native American Indian Studies (Five Colleges, Inc., 2010). The majority of the certificate programs are available to students from any one of the five institutions, with the exception of Cognitive Neuroscience, Costal \& Marine Sciences, and Ethnomusicology, which are currently pending approval at Amherst College and/or the University of Massachusetts Amherst (2011).

It does appear that many students take advantage of the expanded academic options available through the consortium, as "4,500 cross registrations take place each year" (Five Colleges, Incorporated, 2011). While more detailed statistics are not available about the overall use of these reciprocal arrangements and cross enrollment by all five schools, a 2008 article in

The Daily Pennsylvanian does provide some insight, stating that " 36 percent of Amherst students take classes at another institution in the consortium [...] while 95 percent of Hampshire seniors have" (Baron, 2008). This imbalance is partly explained by the fact that Hampshire students are required to take a course at a member institution before graduation, something not specified by the curricula of the other four schools. Still, these external numbers suggest a vibrant collaboration with significant participation of students across the Five Colleges.

The fact that so many students take advantage of cross-enrollment can be partly explained by the logistical mechanisms in place to make inter-collegiate registration straightforward and to make taking classes on different campuses as convenient as possible. These facilitating factors include the shared course catalog, meal exchange, bus service, and automatic transfer of credit to a student's home campus, where all work is consolidated into a single transcript. Additionally, Five College student advisors have offices on each of the five campuses to facilitate use of consortial benefits and to help students navigate the system.

To simplify the process of registering for classes, a joint committee works to align each campus schedule as closely as possible, overseeing and consolidating the academic schedule for the five colleges. The committee publishes one comprehensive calendar showing the information for each of the member schools (Five Colleges, Inc., 2011). Having a calendar that is synchronized is crucial in according students access to these expanded options. Students are also able to access a unified portal to look for classes on multiple campuses in order to find courses that meet the specific requirements of the Five College, Inc. joint departments and programs (Five Colleges, Inc., 2011). Cross-enrollment is also available online, through the Five College Interchange Cross Registration Portal. Two limitations are in place to ensure that students get the most benefit from studying at another campus; students must wait until the
second semester of their Freshman year before cross-enrolling and they have to get approval from their home campus advisor before beginning enrollment procedures (Five Colleges Inc., 2011).

Unlike the ease of transportation in the CUC, the non-contiguous campuses of Five Colleges, Inc. require additional support services to ease the commute among the five institutions. To the end, the Interchange Bus is offered at no cost to students, faculty, and staff of the joint community (Five Colleges, Inc., 2003). This private shuttle service operates 12 individual bus lines that travel among the campuses and to local shopping areas, four of which operate on a loop exclusively for intercollegiate transit. Bus service is available seven days a week, staring around 6 am and ending around 3 am Monday to Saturday and 8 am to midnight on Sunday (University of Massachusetts Amherst, 2010). Despite the convenience of these bus lines, the UMass transportation schedule shows that transportation to more distant campuses can take up to 45 minutes (2010).

It is important that the bus service runs smoothly, since the commute could otherwise be prohibitive. Traveling by car is difficult, as Amherst and Smith Colleges do not allow students from other institutions to use campus parking during the school day. Hampshire and Mount Holyoke are the only two liberal arts colleges that allow student parking during the school schedule (University of Massachusetts Amherst, 2010). In Optimizing the Consortial Advantage by 2020, the consortium states that it plans to "[look] at options for providing more express bus service among the colleges and at possibilities of matching the scheduling of courses particularly desired for cross-registration with the times when there is express transportation" (Reyes, 2010). The importance placed on this logistical issue underscores the significance of reliable and efficient transportation for consortia with proximal but non-contiguous campuses.

The meal exchange further facilitates ease of use for cross-registered students. According to the Five College Dining website, the meal plan is provided "[i]n support of academic and extracurricular opportunities" (2003), reflecting the consortium's key mission. There is "an open interchange of meals " for lunch during the week, for any student enrolled in a meal plan at their home institution (Five Colleges, Inc., 2003). In order to dine at another campus during the day, students are asked to "provid[e] proof of taking a class or being involved in an extracurricular activity such as a performance" (Five Colleges, Inc., 2003). Additionally, "[e]ach campus has designated dining locations [...] for the approved meal exchange on weekends and for dinner" (Amherst College, 2011), which facilitates access to intercollegiate activities outside of scheduled course hours. This protocol also ensures that no single dining facility will be overwhelmed by Five College diners on any given day.

Combined extracurricular activities appear to be common for Five College students as well. The Five College Student Coordinating Board (FCSCB) regularly brings together the officers from each school's individual student council(Five Colleges, Incorporated, 2003). According to the FCSCB website, " $[t]$ he Board serves as an enabling body to initiate, support, and promote interaction and cooperation among the institutions and their students. The Board can make recommendations to the Directors of the Five Colleges with proposals for improved cooperation" (2003). Further, "[m]ost clubs, intramural sports and extracurricular activities on each campus are open to Five College students" (Five Colleges, Inc., 2003), with the exception of varsity sports, likely a result of NCAA regulations and not internal school policies. To facilitate collaboration among campus groups, the Five Colleges, Inc. (2011) website provides links to the student organization pages of all the member institutions. Since bus service is open until late in the evening and dining services are available for students participating in any of
these activities, it does appear that the schools have taken care of logistical impediments that could otherwise prevent students from engaging in activities on other campuses.

In addition to extra-curricular clubs and groups, the Five College Calendar of Events website (2011) gives students from each campus access to information about lectures, sporting events, museum exhibitions, and other special activities held throughout the consortium. This calendar can be searched by day, week, month, or year, giving students plenty of time to plan to attend events held on other campuses.

The corporate structure of Five Colleges, Inc. plays a significant role in daily operations; it features office operations that are deeply integrated in order to "achieve economic efficiencies" (Marx, Hexter, Creighton, Christ, \& Holub, 2009). There are currently 49 joint administrative committees and five joint administrative programs that include Five College Recycling, the Five College Interchange for meal services, and the Joint Purchasing group, which save several million dollars annually (Five Colleges, Inc., 2003). These joint operations also offer funding for new administrative " $[\mathrm{g}]$ roups seeking to carry out a one-time collaboration in the interests of professional development or work-related training" as well as "innovative forms of collaboration of a larger and more long-term scale" (Five Colleges, Inc., 2003).

According to Optimizing the Consortial Advantage by 2020: Plan for Five Colleges, Incorporated, the leaders of the Five Colleges, Inc. state that they have "a leadership role to play in demonstrating a model for higher education that is both pedagogically and financially sustainable" (Five Colleges, Inc., 2010). The ability to serve as a model for higher education collaboration is at the heart of the Five Colleges, Inc. identity and serves as a clear indicator of their feelings of success in their consortial arrangements. Like the collaboration amongst the Claremont schools, Five Colleges, Inc. represents a mutually beneficial arrangement wherein the
combined academic, administrative, and physical resources offer greater opportunities and services than any of the campuses could provide individually (Table 7).

|  | Features of Five Colleges, Inc. |
| :---: | :---: |
| (1) Academic Integration | - Expanded curricular options (cross-registration in 5,300 courses across the five institutions) <br> - Joint major (Film Studies) <br> - 13 Joint certificates (ex. Buddhist Studies, Logic, Native American Studies) <br> - 2 Intercollegiate departments (Astronomy \& Dance) |
| (2) Shared Academic Resources | - Joint library system has 8 million volumes <br> - Access to special collections on each of the 5 campuses <br> - Student access to music lab and a rare book archives <br> - Field sites with equipment for the study of Astronomy, Biology, and Geology |
| (3) Logistical Support Services (Academic) | - Five College, Inc. Interchange catalog, available online <br> - Integrated cross-enrollment procedures <br> -Transfer of credits among institutions (with some limitations at Amherst College) <br> - Integrated procedures for grades/credit on the home transcript <br> - Synced academic calendar |
| (4) Logistical Support Services (Student Life) | - Interchange Bus service with direct routes to all 5 campuses <br> - Dining options on all 5 campuses, open for all meals if students are away from their home campus for academics activities (specific facilities only available evenings and weekends) <br> - Joint administrative committees (incl. Calendar Committee, Council on Religious Life) <br> - Joint administrative programs (incl. Recycling \& Risk Management) |
| (5) Integrated Campus Life | - Most extra-curricular groups on each campus is open to other Five College, Inc. students (except varsity sports) <br> - Joint student council (FCSCB) <br> - Shared intramural sports <br> - Five College Calendar of Events |
| (6) Organization | - Incorporated in 1965 <br> - Run by a Board of Directors <br> - Non-Profit Organization <br> - $\$ 6.15$ million annual operating budget |

Table 7: Five Colleges, Inc. as a Comprehensive Consortium

## Focused Collaborations: Colleges of the Fenway \& Five Colleges of Ohio

The Focused Collaborations serve to enhance the academic initiatives of the member institutions, with little or no emphasis on creating support systems or student services to facilitate the use of these joint resources (Table 2). This arrangement consolidates the efforts of the schools and focuses them on targeted academic goals, without necessitating an additional expenditure of energy or funds to create logistical mechanisms. The two main groups in this category, The Colleges of the Fenway (COF) and the Five Colleges of Ohio, address these additional consortial needs in different ways. The COF sub-contracts the services needed to support student access while the Five Colleges of Ohio avoids the need for additional student services or facilities altogether by providing collaborative benefits that are almost exclusively accessed online.

## The Colleges of the Fenway

The Colleges of the Fenway (COF) is a collaboration of six schools in Massachusetts (Table 8). Clustered in the Fenway neighborhood of Boston, the schools are part of the 210-acre campus known as the Longwood Medical and Academic Area (Colleges of the Fenway, 2010). This consortium has a shared mission to "add value to student academic and social life while seeking innovative methods of investing in new services and containing the costs of higher education" (Colleges of the Fenway, 2010). Similar to the ideals of the other consortia surveyed, the collaboration is seen as providing an add-on benefit that enhances opportunities for students. Simmons College President Helen Drinan describes how " $[t]$ he idea was to provide more options for students in the area than any of us as individual colleges could provide on a
stand-alone basis" (Ryan, 2011). This message of synergistic benefit is echoed throughout the schools in this survey.

| Institution | Founded | Student Body |
| :--- | :---: | :---: |
| Emmanuel College | 1919 | 2,198 |
| Simmons College | 1899 | 1,912 |
|  <br> Design (MassArt) | 1873 | 2,259 |
| Massachusetts College of Pharmacy <br> \& Health Science (MCPHS) | 1823 | 1,628 |
| Wentworth Institute of Technology | 1904 | 3,721 |
| Wheelock College | 1888 | 830 |

Table 8: Schools of The Colleges of the Fenway

At the core of the collaboration is a shared educational goal, prioritized from the outset when "[o]ne of the first acts of the presidents was to mandate alignment of the academic calendars and the implementation of a cross registration program" (Colleges of the Fenway, 2000). Because of this agreement, students at each of the six institutions can enroll in two courses at another COF school every semester, or a total of sixteen courses before graduation (Colleges of the Fenway, 2010). ${ }^{3}$ The 2,868 faculty, staff, and employees (Colleges of the Fenway, 2010) of the COF schools are also able to cross register for one course each semester, when space is available (Colleges of the Fenway, 2010) something not publicly promoted by any of the other consortia in this survey.

With a combined total of 2,300 courses from which they can choose, "more than 400 students cross-register for courses within the six COF schools every semester (Colleges of the Fenway, 2010). These courses include Public Health, Sign Language, Vocal Performance, Boston History, and Photography (Colleges of the Fenway, 2010) and are accessible to students

[^2]via a searchable cross registration database that lists the COF classes open to undergraduates. The COF also developed a joint course called Work and American Culture (Colleges of the Fenway, 2010). A COF joint minor is available in Performing Arts for students enrolled at Emmanuel, MCPHS, MassArt, Simmons and Wheelock and a 7-year dual degree program is offered between the MCPHS and Simmons, leading to a B.S. in Chemistry and a Pharm.D. degree (Colleges of the Fenway, 2010). Annually, an average of only 300 students have taken advantage of this opportunity since the arrangement began (Colleges of the Fenway, 2010), equivalent to a surprisingly low $2.4 \%$ of the total students in the COF.

The limited use of the expanded academic opportunities may be explained by logistics. According to the COF Cross Registration website, the cross-enrollment process is not done online; students have to meet with an advisor before enrolling in a course offered at another COF school (2010). Once the advisor approves the courses, a form has to be signed by the registrar of the home institution. This document must then be taken to the registrar at the institution hosting the course, in order to find out if there is space available for a COF student (Colleges of the Fenway, 2010). Since so many other elements of the COF relationships are easily navigated online, it is somewhat surprising that cross-enrollment procedures are not more user friendly and perhaps accounts for the surprisingly small number of enrollees. However, the issue of GPA and grades on a student's home transcript is better integrated. All credits for COF courses are automatically transferred to the home institution, though these credits may not always meet core requirements (Colleges of the Fenway, 2010). All COF courses are included in GPA calculations and are processed automatically by the COF registrars (Colleges of the Fenway, 2010).

The COF offers integrated extra-curricular programs in athletics, arts, and leisure. The COF Performing Arts group oversees performing ensembles and, joint academic programs; it is also responsible for "promotion of performing arts activities across the six colleges" (Colleges of the Fenway, 2011). Included are a COF Jazz Band, Chorus, Orchestra, and Chamber Ensemble as well as projects in Dance and Theater (Colleges of the Fenway, 2011). A COF sports team website lists both traditional and non-traditional activities, such as COF Flag Football, Outdoor Soccer, Dodgeball, Xbox Madden '12, and a Texas Hold 'Em Poker Tournament (2011). These diverse activities are not only open to members from all six COF schools, but participants are "encouraged [to] make teams with students, faculty, and staff from different institutions" (Colleges of the Fenway, 2010). For performances, lectures, receptions, and conferences, students and staff have access to the Around COF weekly newsletter that presents events taking place at each of the six campuses (Colleges of the Fenway, 2011). All of these joint efforts help to encourage extra-curricular collaboration and interaction amongst the students, faculty, and staff of the COF schools. The ease of finding information about these opportunities and the close proximity of the campuses suggest that students would face few impediments to taking advantage of these expanded opportunities. However, no data are available about cross-campus participation in any of these activities or events.

While the library system is not at the heart of the COF arrangement, as it is in the Comprehensive Consortia, the COF does offer extended access to library resources. Instead of a specific COF library-sharing program, like those at CUC and Five Colleges, Inc., the schools of the COF participate in two external library consortia. Their primary relationship is through the

Fenway Libraries On-Line (FLO), which consists of the majority of COF schools ${ }^{4}$ along with several outside institutions, including the Museum of Fine Arts and University of Massachusetts Boston. Participation in FLO allows students to checkout books from a consolidated collection of more than 900,000 volumes from 11 libraries (Fenway Libraries Online, 2011). For added convenience, students are also able to request delivery of these materials to their home campus via the Inter-Library Loan system (Colleges of the Fenway, 2010). According to the FLO website, this economy of size provides greater services and resources than any individual library could afford alone (2011).

The fact that the COF offers these extended library privileges, operated through outside organizations, supports their mission of enhancing resources without increasing costs. Similarly, the COF schools do not directly collaborate on logistical issues of operations and facilities, such as shuttle service, physical plant maintenance, or shared dining services. Instead, they use thirdparty providers to address some of these needs and to promote access to their consortial benefits.

Transportation among the six institutions is facilitated by the COF's partnership with the MASCO transportation system, "a non-profit organization dedicated to enhancing Boston’s Longwood Medical and Academic area" (MASCO, 2011). The six COF schools are part of the 24-member association served by the shuttle service; access to these services is ensured without the schools having to assume responsibility for overseeing daily operations. Since the association is not a COF entity, there are no direct routes exclusively serving the COF campuses. Even without direct shuttle transportation, shared academic resources at the heart of this relationship are not threatened since the location of the campuses ensures that students can walk

[^3]or bike to neighboring schools. For example, the 0.3 mile walk from Emmanuel to Simmons can be completed in under 6 minutes (Google Maps, 2011) while the 0.8 mile commute between Wentworth and Wheelock takes approximately 4 minutes by car, 7 minutes by bike, or 17 minutes on foot (Google Maps, 2011). COF students also have easy access to MBTA bus lines and the subway system to facilitate travel around the Longy Medical and Academic Area. The variety of options combined with the close proximity of the six campuses ensures that students have multiple paths to reach other COF schools. While a car would cut the already short commute time, some campuses do not permit undergraduate parking (Emmanuel College, 2011) and the cost of public parking can be prohibitive.

One interesting element of the COF arrangement is not seen in any of the other consortia included in this survey: the accommodation for travel time and schedule conflicts. According to the COF Academic Policy, "Cross-registering students can get permission from their home institutions' residence life office for early arrival/late departures [to and from class] if there is a conflict between the two institutions' schedules (Colleges of the Fenway, 2010). This additional level of accommodation ensures that such logistical concerns will not impede participation in cross enrollment, perhaps more of a concern for this group of schools as there is no private shuttle operation that can be coordinated with class schedules.

The Fenway Card is issued to all students, faculty, and staff of the COF through CardSmith, an independent contractor. It "is required for identification and access to essential campus services (Fenway Card, 2011) throughout the COF, including the shared libraries, computer labs, campus bookstores, and joint events (Massachusetts College of Art \& Design, 2011). The card also offers access to the dining facilities at all six of the Colleges of the Fenway campuses, even though there is no joint meal-plan or cooperative agreement made among

|  | Features of the Colleges of the Fenway |
| :--- | :--- |
| (1) Academic Integration | $\begin{array}{l}\text { - Expanded curricular options (cross-registration available for 2,300 } \\ \text { courses) } \\ - \text { Joint course (Work \& American Culture) } \\ - \text { Joint minor (Performing Arts - available to students at 5 of the schools) } \\ -7-y e a r ~ D u a l ~ d e g r e e ~ p r o g r a m ~(B . S . ~ i n ~ C h e m i s t r y ~ \& ~ P h a r m . D .) ~\end{array}$ |
| (2) Shared Academic Resources | $\begin{array}{l}\text { Fenway Libraries Online has 900,000 volumes and offers expanded library } \\ \text { resources for students at 6 campuses }\end{array}$ |
| $\begin{array}{l}\text { (3) Logistical Support Services } \\ \text { (Academic) }\end{array}$ | $\begin{array}{l}- \text { COF Cross Registration website gives access to a searchable database of } \\ \text { available courses }\end{array}$ |
| - Protocol in place for cross-registration |  |
| - Credit and grades for COF courses are automatically added to home |  |
| transcript (with limitations re: core credits) |  |
| - Synced academic calendar (with some minor exceptions) |  |$]$

Table 9: The Colleges of the Fenway as a Focused Collaboration
dining services at the COF schools (Wentworth Institute of Technology, 2007). Instead, this card is linked to a Fenway Cash debit account, which can be used to purchase meals on other campuses. According to the Fenway Card website (2011), one of the benefits for COF students is that "you can use it for purchases at the other five - making your visits to these institutions easier and more convenient". The issue of convenience is a clear benefit of this unified identification system. This card is another example of how the schools of the COF use an external service provider, subscribed to by each of the six institutions individually. In doing so, they are able to meet student needs without expanding the consortial arrangement.

Overall, logistical issues seem to be well addressed throughout the COF schools, through external support services that are contracted to meet student needs. This solution confirms the consortium's stated goal of expanding the options available to students enrolled at the six institutions while also keeping operating costs to a minimum (Table 9).

## The Five Colleges of Ohio (aka "The Ohio Five")

The Five Colleges of Ohio is a consortium founded in 1995 with the express purpose of combining library resources for these educational communities. A grant from the Andrew P . Mellon Foundation "provided for the development of a joint library system, establishment of an administrative structure, and investigation of the benefits and methods for sharing digital images and multimedia resources" (Five Colleges of Ohio, 2008). This agreement among the five institutions (Table 10) was finalized when the college presidents incorporated Five Colleges of Ohio, Inc. as a legal entity and agreed to serve together on a Board of Directors (Five Colleges of Ohio, 2008).

| Institution | Founded | Student Body |
| :--- | :---: | :---: |
| The College of Wooster | 1866 | 2,003 |
| Denison University | 1831 | 2,275 |
| Kenyon College | 1824 | 1,632 |
| Oberlin College | 1833 | 2,948 |
| Ohio Wesleyan University | 1842 | 1,919 |

Table 10: Schools of Five Colleges of Ohio

The core of this arrangement is CONSORT, a shared library catalog that offers "direct borrowing of circulating library materials among CONSORT member libraries", a benefit available to students, faculty, and staff (Consort Colleges, 2003). Four of the five schools participate in CONSORT, with only Oberlin College not included in the group (Consort Colleges, 2007). In 2001, the CONSTor Storage Facility was added to the system, offering offsite storage for library materials from all of the member schools (Consort Colleges, 2003). According to the Five Colleges of Ohio memorandum of understanding regarding sharing of library materials (2003), it is "a place for long-term storage of valuable but little-used library materials". This first step towards formalizing a collaborative relationship reflects a public
statement made by the Five Colleges of Ohio group, in which they proclaimed, "[n]ever again can our libraries stand completely alone in terms of library collections and other resources" (Five Colleges of Ohio, 2008).

While the institutions initially came together as part of a library cooperative, they have since expanded to share other resources, though almost exclusively online. These resources include health and safety training, joint licensure of academic software, combined video conferencing tools, and other efforts to consolidate costs and save money for the member institutions (Five Colleges of Ohio, 2008). The consortium has a shared goal of ultimately collaborating on academic programs as well, but also via cyberspace. To this end, the five schools have worked together to employ their model of shared resources to the language curricula of the five schools and created a group of projects funded by the Ohio Five Foreign Language Technology Grants. These programs offer shared technology services to enhance foreign language learning at each of the institutions (Five Colleges of Ohio, 2002). Similarly, they have created Mathematica @ The Five Colleges of Ohio, described as "the world’s most powerful global computing environment" (Five Colleges of Ohio, n.d.). This shared resource is hosted on computers in each of the campuses, giving all Five College of Ohio students access to this computer-based learning tool.

The schools have also come together to research the effectiveness of liberal arts education, through a project called Creative and Critical Thinking (College of Wooster, 2006). This multi-year research study is intended to "use focused efforts to produce well-designed and validated rubrics that teachers can apply in a variety of educational settings to assess creative and critical thinking and to foster more effective pedagogies, thus demonstrating the value-added
nature of a liberal arts education" (College of Wooster, 2006). Currently four of the five schools are involved in this project, with only Oberlin College abstaining, for reasons that are not given.

At the present time, there are no policies in place for cross-enrollment, shared dining services, transportation among Five College of Ohio campuses, or the other elements seen in the Comprehensive Consortia. For example, each school website gives clear guidelines for transferring academic credit from other institutions, particularly international universities attended during study abroad programs. However, none of the school registrar websites mention the option of cross-enrollment with the other schools in the consortium. Further, no other references are made to the Five Colleges of Ohio collaboration on any of the individual school websites, apart from news stories about grants earned, the library project, or to reference the research project. Of the seven schools surveyed, this is the most focused use of consortial resources to meet targeted goals within a more proscribed context.

|  | Features of the Five Colleges of Ohio |
| :--- | :--- |
| (1) Academic Integration | None |
| (2) Shared Academic Resources | - The CONSORT shared library catalog of 600,000 printed volumes is <br> available to 4 of the 5 schools <br> - Has an off-site CONSORT storage facility <br> - Digital resources for students and faculty |
| (3) Logistical Support Services <br> (Academic) | None |
| (4) Logistical Support Services (Student <br> Life) | None |
| (5) Integrated Campus Life | None |
| (6) Organization | - Run by a Board of Directors, Operating Committee, Academic Committee, <br> and Executive Director |
| - Legal Entity |  |
| - Funded by multiple grants (ex. Mellon Foundation) |  |

Table 11: The Five Colleges of Ohio as a Focused Collaboration

The Five Colleges of Ohio, Incorporated has a combined library system and shared electronic resources. In creating this limited partnership, they have circumvented the need for services to address the logistical needs of the other consortia in this survey (Table 11). This
feature of Focused Collaborations ensures that limited resources have a powerful impact on the end goal of uniting multiple institutions to achieve targeted goals that benefit certain aspects of the educational community.

## The Spectrum of Collaborations: The Bi-Co, Tri-Co, \& the Quaker Consortium

One group of three overlapping arrangements among four institutions (Table 12) illustrates the range of intercollegiate collaboration in higher education and provides a revealing exemplar to explore the proposed categories. Given their overlapping institutional membership and proximal location, these three groups constitute a natural laboratory to explore the spectrum of collaborative styles.

Three separate agreements exist among this group of four schools: the Bi-College Consortium (Bi-Co) of Bryn Mawr and Haverford; the Tri-College Consortium (Tri-Co) of Bryn Mawr, Haverford, and Swarthmore; and the Quaker Consortium, which expands the TriCo group to include the University of Pennsylvania. This group represents a set of tandem relationships with 3 different depths of association along the spectrum: a Comprehensive Consortium (Tri-Co), a Focused Collaboration (Bi-Co), and one school that does not meet the criteria for either category (Quaker).

| Institution | Founded | Student Body |
| :--- | :---: | :---: |
| Bryn Mawr College | 1885 | 1,293 |
| Haverford College | 1833 | 1,177 |
| Swarthmore College | 1864 | 1,524 |
| University of Pennsylvania | 1740 | 9,865 |

Table 12: Schools of Bi-Co, Tri-Co, and the Quaker Consortium

These nested relationships grew through accretion, drawing upon the shared Quaker religion and/or philosophy of the institutions, combined with their geographic proximity. This
series of loosely articulated agreements provides an example of how institutions can work together to build a web of relationships that enhance the curricular and extra-curricular opportunities to varying depths, tailored to institutional need.

## The Bi-College Consortium (Bi-Co)

The Bi-College Consortium (Bi-Co) links Bryn Mawr and Haverford in a Comprehensive Consortial arrangement. As such, it is most well-defined arrangement of the three in this category. It also has the greatest number of ties between the two schools. Bryn Mawr, a small, women's college with a focus on liberal arts, began to build strong ties with neighboring colleges in the 1960s. Haverford College, their closest neighbor and formerly an all-male institution, was a natural partner, given not only their shared curricular interests and their deep roots in shared Quaker heritage, but also their complementary single-sex profiles. ${ }^{5}$

In this arrangement, the benefits of sharing resources with a neighboring campus are seen as an add-on benefit for students, not a core mission of either institution. The Bi-Co arrangement is mentioned in the Bryn Mawr College Mission Statement, approved by their Board of Trustees in December 1998. This document specifies that the "cooperative relationship with Haverford College enlarges that academic opportunities for students and their social community" (Bryn Mawr College, 2011). The Haverford College statement of purpose makes no direct reference to the Bi-Co relationship, though this school arguably receives a similar benefit.

The campuses, located in the suburban Philadelphia area known as the Mainline, are only a mile apart. According to the Haverford College website, "[m]ore than 2,000 students are crossregistered between Haverford and Bryn Mawr" (Haverford College, n.d.), a significant majority

[^4]of almost $81 \%$ when one considers the fact that the combined enrollment at both institutions was only 2,470 in 2010 (College Board, 2011).

For students traveling between campuses, the Bi-Co Blue Bus runs daily, including weekend hours as late as 2:50 am (Bryn Mawr College, 2011) and both dining halls are open to students of either campus. Further, reciprocal housing privileges mean that students can attend the single-sex college while living on a co-ed campus. In 2009, the first male student from Haverford even moved into the dorms of Bryn Mawr College's previously single-sex housing system (Boccella, 2009), integrating the two schools in a new way. These shared core elements of student life ensure connections among the students of the Bi-Co schools that are felt by every member of the community, even those who do not travel to the other campus.

The ease of transport between the two campuses naturally facilitates shared curricular offerings. According to the Bryn Mawr College website, students can "even major at the neighboring school" (Bryn Mawr, 2011). An academic course portal shows that courses are offered on both campuses, that the academic calendars are synchronized, and that courses taken during the school year automatically appear on the student's home institution transcript. Also significant to the function of the Bi-Co Consortium is a combined registration process between the schools; this step eliminates the extra paperwork and coordination required by the other schools in this group of relationships.

Campus life is also enhanced by the Bi-Co agreement. The campuses share "a number of extracurricular groups and some intramural sports operate jointly" (Bryn Mawr College, 2011). For example, "students at Bryn Mawr [...] often play for Haverford's women's sports teams" (Baron, 2008) and the schools also collaborate to publish a joint newspaper, The Bi-Co News.

The campuses offer Bi-Co Dining Services, the Bi-College Career Development Office, and a Bi-Co Theater Program.

While no official Bi-Co organization oversees the arrangement between the two institutions, joint committees work together to coordinate shared campus activities, dining, registration, a joint calendar, and transportation. Since some core differences do exist between the two campuses and, since no board of directors is in place to establish overarching rules for the consortium, other efforts have been made to address this issue. For example, guidelines for a Bi-Co Liaison have been proposed to assist with judicial processes on either campus that arise due to disciplinary issues (Haverford College, 2011). This proposal, waiting for approval in Fall 2011, states that the role of the liaison differs by institution, since the schools each have individual policies in place (Haverford College, 2011). We can infer that the schools continue to work together to find effective ways of addressing potential conflicts without compromising individual institutional policies or identity. However, the fact that this long-standing collaborative agreement is still working to ease the relationship between the institutions also suggests the difficulty of navigating a collaborative agreement without a designated overseer.

One illustration of this difficulty arose in February 2011. Despite the close working relationships between administrators at both institutions, a policy issue over funding sources put a halt printing of the Bi-Co News (Davidson, 2011). The result of this conflict was to move the Bi-Co News online, to a site re-named "Bi-Co (on a budget)" with a virtual masthead declaring, "All the news that Bi-Co can't afford to print". Despite this tongue-in-cheek response to the problem, the ongoing debate (as yet unresolved) does underscore the fact that any consortial relationship, even among closely-tied institutions with mutual goals and shared philosophies, is not immune to issues that can impede full collaboration.

## The Tri-College Consortium (Tri-Co)

The Tri-College Consortium (Tri-Co), a Focused Collaboration, adds Swarthmore College to the Bi-Co partnership. Swarthmore is a liberal arts college located approximately 20 minutes from the Bryn Mawr and Haverford campuses. The relationship is mentioned in Swarthmore College's Statement of Purpose (2010), which explains how " $[t]$ he College's location also makes possible cooperation with three nearby institutions". However the benefits that this arrangement might provide for their students are not detailed.

As seen in the consortia previously discussed, the core of the Tri-Co relationship is the integrated library system. This system is operated as part of the Tri-Co arrangement, which means it also provides integrated library access to both of Bi-Co schools. The fact that the Bi-Co institutions do not have a separate library arrangement is a telling illustration of how closely intermingled the $\mathrm{Bi}-$ and Tri-Co arrangements actually are. The online database of more than 2.5 million books is hosted on Tripod (Bryn Mawr College, 2011), where students from the Tri-Co schools can search for, request, and borrow books from any of the libraries in the consortium (Luther, Bills, McColl, Medeiros, Morrison, Pumroy, \& Seiden, 2003). This gives Tri-Co students access to significantly more books than would be available at one of these institutions alone.

While these shared educational resources appear relatively easy to access from all three campuses, the academic component of this partnership may not be so easy to navigate. While students in the Bi-Co schools can register for courses on the other campus online, enrolling in Swarthmore College courses involves additional paperwork, and assistance from the registrar. Further, in order to maintain their small class size and student to faculty ratio Swarthmore limits
the courses available to Tri-Co students. These limits are noted in the shared Tri-College Course Search engine. However, educational collaboration exists in other ways. For example, one significant accomplishment in the academic arena is the creation of the Middle East Studies Initiative. According to a 2008 article in The Daily Pennsylvanian, "[t]he program pools faculty between [sic] the three colleges. Professors travel among the schools to teach introductory level Arabic, thereby relieving students from making the long bus rides five days a week" (Baron, 2008).

This 'long' bus ride is a factor that is clearly an issue that impedes full partnership for BiCo students with Swarthmore College. While the 20-minute distance required for $\mathrm{Bi}-\mathrm{Co}$ students to reach Swarthmore may not seem significant, it appears that few students are able to make the direct trip on their own. Instead, they must depend on the Tri-Co Van, coordinated by Bryn Mawr's Department of Transportation, which takes between 30 and 45 minutes to reach Swarthmore and runs among all three schools only on the weekends. During the week, shuttles go either directly from Bryn Mawr or Haverford, without stopping at the third campus along the route, meaning that $\mathrm{Bi}-\mathrm{Co}$ students may need to take an additional shuttle to gain access to the Tri-Co van, elongating the trip by more than 10 minutes. Further, while the weekend shuttle ends at 3:05 am on Saturday and 10:40 pm on Sunday, the weekday schedule ends before 7 pm (Bryn Mawr College, 2011). The abridged shuttle service suggests less cross-campus participation in evening extra-curricular and social activities for members of the Tri-Co group.

Additionally, a special Swarthmore College parking permit is required for Bi-Co students who do have a car and these permits are not automatically granted to students (Swarthmore College, 2011). The Bryn Mawr College website (2011) is most explicit about parking regulations, stating that no $\mathrm{Bi}-\mathrm{Co}$ students can park at Swarthmore College between 8 am and 5
pm, Monday to Friday, during course times. While this stipulation is not unique to the Tri-Co arrangement, the same regulation is in place for $\mathrm{Bi}-\mathrm{Co}$ students. Transportation to Swarthmore appears to be more of an obstacle to participation in the shared academic offerings. No numbers are given to indicate the number of Swarthmore students who cross-register at the Bi-Co schools and vice versa, but the schools' websites suggest that the number may be low.

## The Quaker Consortium

Despite its evocative title, The Quaker Consortium meets only one of the six criteria for either a Comprehensive Consortium or a Focused Collaboration. This unique relationship is comprised of the three Tri-Co schools of the Main Line, with the addition of the University of Pennsylvania in Philadelphia. In Commuting to class with the Quaker Consortium (2008), Jeremy Baron explains that, "relatively little is known about the origins of the [Quaker] Consortium". According to Associate Dean and Director of Academic Affairs, Kent Peterman, "the Consortium harks back to a 1934 "gentlemen's agreement in which "no money changed hands - a 'Quaker' arrangement, if you will" that was "originally referred to as a reciprocal program" (Wang, 2010). Peterman further explains that the arrangement is due "to the schools' proximity, high-caliber students and to the idea of expanding students' academic options" (Wang, 2010). The Quaker Consortium is not mentioned in the Penn Mission of the College, but it does appear that school officials do find value in the arrangement. In his 2008 interview, Dean Peterman acknowledges that "the agreement helps facilitate intellectual collaboration between [sic] the schools [...] and we're a richer place for that" (Baron).

After three-quarters of a century of this loose arrangement, it is surprising that there is little formal structure in place for students, faculty, or staff to understand or utilize the arrangement. The Quaker Consortium is unique in this group of three arrangements, in that it is
a purely academic collaboration that does not include shared extra-curricular or social activities among Penn and the Tri-Co schools; does not offer any bi-campus programs or shared facilities; and does not coordinate any of their campus services like transportation or dining.

While students can learn about the arrangement on each of the four school websites, there is an imbalance in the way it is used by students at the different institutions. Very few Penn students take courses at Bryn Mawr, Haverford, or Swarthmore. In fact, almost all of the traffic flows in the other direction. A 2006 article in The Daily Pennsylvanian gives statistics about use of the consortium, stating that " $[i] n$ ne fall of 2004, about 150 Bryn Mawr students made the trip to Penn to take a class at no extra charge, while only five Penn students took a class at any of the other colleges" (Angel, 2006). Baron (2008) elaborates on this, explaining, "about 150 [Tri-Co] students come to Penn in the fall and 125 in the spring, while only five students from Penn take advantage of the program each semester". Despite this imbalance, Dean Peterman explains that "it's zero cost" for the university, which is offering the courses already and no additional expenditures are required to accommodate Tri-Co students, who are "just a small drop in the bucket" (Baron, 2008) compared to their 25,000 student enrollment.

The Swarthmore College Registrar acknowledges that it is "by no means a balanced relationship" (Baron, 2008) and explains that Swarthmore students are prevented from taking more than one class at Penn each semester, "out of fairness" to Penn; perhaps as a consequence only 20 Swarthmore undergrads make use of the consortial arrangement each semester. Based on the information provided by Dean Peterman, this means that only 13.3 - $16.7 \%$ of the students who commute to Penn come from the Swarthmore campus and the majority of undergraduates taking advantage of the expanded opportunities come from the Bi-Co group (Angel, 2006).

Another explanation for the imbalance in the relationship may be due to the fact that Penn makes enrollment in Tri-Co courses more complicated than is the case in many consortial arrangements. First, there is no integrated course portal that shows the courses offered at Penn along with those of the Tri-Co schools. Students must $\log$ on to an outside system to find classes. Once they locate these courses and verify that they are open to Quaker Consortium students, they cannot register online. To enroll, students not only have to appeal to their Dean, but also secure approval from the corresponding department on their campus, and then return to the Dean to get a letter, which can be taken to the registrar at the other institution (University of Pennsylvania, n.d.). This series of steps could easily be seen as an impediment to students who are used to enrolling in all of their courses online and without meeting with three separate departments on two different campuses. However, receiving credits for the courses on the student's home transcript is an easier process. Students must request that a transcript for their work be sent to the Penn Registrar, where it will be manually entered into their transcript and included in their GPA. Thus, the conclusion of the cross-registration process is significantly easier and less time consuming than the initial stages.

Further, when looking at the commute among Penn and the Tri-Co schools, the issue of transportation and cost is key. No Quaker Consortium van or bus service exists, so students must make the commute via public transportation. The Bryn Mawr College website acknowledges that the commute, 25 -minutes by car, is about an hour on the commuter rail, whose departure times are not aligned with the school schedules (Bryn Mawr College, 2011) and, unlike The Colleges of the Fenway, no accommodations are in place for students who have scheduling conflicts due to transportation.

While the commute by car would certainly add convenience and cut down on travel and wait time, there is no parking available at the Penn campus for Tri-Co students. In fact, the portal to apply for parking permission, even a 24 -hour pass, is limited to those who have a valid Penn ID number (University of Pennsylvania, 2010). While facilitating transportation for student could improve access, Dean Peterman explained that there were no plans to do this, since "building a transportation system would add costs" (Baron, 2008). To help support students who choose to take courses at Penn, the Tri-Co schools do provide a stipend to cover the train fare (Angel, 2006). This expense could be prohibitive, as one student interviewed stated that the cost of travel was in excess of $\$ 300$ for a single semester (Zheng, 2005). Penn is also the only one of the four schools that does not compensate students for travel costs to attend classes on the other campuses (Angel, 2006).

Since the Quaker Consortium remains a relatively loose arrangement among Penn and the Tri-Co schools, it is difficult to find information and statistics about students who take advantage of the process. For the time being, it appears that the arrangement will continue indefinitely, providing an example of Dean Peterman's belief that "sometimes a university can do good things just because they're good things to do educationally" (Baron, 2008) and not necessarily because there is a mutual benefit for all participants.

It is clear from Table 13 that as the distance increases, the number of relationships to support the collaboration decrease and the depth of these relationships lose intensity. The table shows a microcosm of the spectrum of collaborative intensity across the field. That is, it illustrates how the desirability for a partnership, campus proximity, and the balance of institutional power and prestige can ultimately shape consortial relationships.

|  | Features of the Bi-College Consortium (Comprehensive Consortium) | $\begin{gathered} \text { Features of the Tri- } \\ \text { College Consortium } \\ \text { (Focused Collaboration) } \end{gathered}$ | Features of the Quaker Consortium (Neither) |
| :---: | :---: | :---: | :---: |
| (1) Academic Integration | - Expanded curricular offerings open to students at both schools - Students can major at the other Bi-Co school - Joint Concentration (Peace \& Conflict Studies) | - Expanded curricular offerings (select courses open to students at Bi-Co schools) <br> -Joint program: Middle <br> East Studies Initiative | - Expanded curricular offerings (most courses open to students at Tri-Co schools |
| (2) Shared Academic Resources | - Participates in the Tripod Joint Library System ( 2.3 million volumes) | - Tripod Joint Library System (2.3 million volumes) | None |
| (3) Logistical Support Services (Academic) | - Tri-College course catalog, available online (can limit to only Bi -Co options) <br> - Online registration process <br> -Automatic transfer of credits between institutions <br> - Synced academic calendar | - Tri-College course catalog, available online (with restrictions for $\mathrm{Bi}-\mathrm{Co}$ students) <br> - Registrar done in person on both campuses <br> - If proper paperwork is filed, credits will appear on the home transcript - Synced academic calendar | - No joint catalog of courses offered at U Penn <br> - Procedures to crossregister in person <br> - If proper paperwork is filed, credits will appear on the home transcript <br> - Closely aligned academic calendar |
| (4) Logistical <br> Support <br> Services <br> (Student Life) | - Bi-Co Blue Bus provides comprehensive transportation between the two campuses - Unrestricted dining access for Bi-Co schools - Joint housing facilities are available <br> - Bryn Mawr oversees transportation | - Tri-Co Van only operates during school hours and weekends (No access to weekday extra-curricular activities) <br> - Tri-Co Van routes do not include all 3 schools during the week <br> - Limited transportation impedes joint dining <br> - Bryn Mawr oversees transportation | - No shuttle service, only public transportation (Penn students cover this cost personally. Tri-Co students receive a travel stipend.) <br> - No joint dining facilities <br> - No joint facilities <br> - No institution is involved in overseeing these operations |
| (5) Integrated Campus Life | - Joint sports teams <br> - Joint extra-curricular activities (ex. theater) <br> - Joint publications (Bi-Co News) <br> - Bi-Co events appear on shared calendars | - Annual Tri-College Peace Week <br> - Special Tri-Co events publicly announced on individual school websites | None |
| (6) Organization | Bi-Co Honor Council \& Liaison, Joint Dining Committee, Bi-Co Career Development Office | None | None |

Table 13: A Comparison of the Bi-Co, Tri-Co, and Quaker Consortia

## Discussion \& Conclusions

In order to develop an understanding of success in higher education collaboration, it is important to distinguish the types of relationships that exist. I first established two empirical categories: Comprehensive Consortia and Focused Collaborations (Table 2) to illustrate a fundamental difference in the motivations and ultimate outcomes of these consortial relationships.

To test the validity of these categories, I created six variables that measure the extent of collaboration that exists among institutions involved in consortial arrangements: 1) Academic Integration, (2) Shared Academic Resources, (3) Logistical Support (Academic), (4) Logistical Support (Student Life), (5) Integrated Campus Life, and (6) Organization. I then used this index to examine the degree of collaboration in seven long-standing higher education consortia (Table 14).

The Claremont University Consortium (CUC) in California, Five Colleges, Incorporated in Western Massachusetts, and the Bi-College Consortium ( $\mathrm{Bi}-\mathrm{Co}$ ) in Pennsylvania meet all six criteria for this categorization reasonably well. Each group has broad consortial agreements that combine academic and extra-curricular resources as well as maintain shared facilities and physical plant operations.

Three schools meet at least one of the six criteria and are categorized as Focused Collaborations: The Colleges of the Fenway (COF) in Massachusetts, Five Colleges of Ohio, and the Tri-College Consortium (Tri-Co) in Pennsylvania. While these groups contain one or more of the relationships seen in the Comprehensive Consortia, the collaborative energy is focused on only these categories and not on logistical services. In the case of COF, the focus is on shared academic offerings, but third-party providers
operate systems that expand both academic resources and logistical supports. The Five Colleges of Ohio is more singular in its purpose of creating shared academic materials, without curricular offerings, shared student services or joint campus operations.

|  | (1) <br> Academic <br> Integration | (2) <br> Shared <br> Academic <br> Resources | (3) <br> Logistical <br> Support <br> (Academic) | (4) <br> Logistical <br> Support <br> (Student Life) | (5) <br> Integrated <br> Campus <br> Life | (6) <br> Organization | Category <br> (CC or FC) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Claremont <br> University <br> Consortium | X | X | X | X | X | X | CC |
| Five <br> Colleges, <br> Inc | X | X | X | X | X | X | CC |
| Bi-College <br> Consortium | X | X | X | X | X | X | CC |
| Colleges of <br> the Fenway | X | X | X |  | X | X | FC |
| Tri-College <br> Consortium | X | X | X |  | X | FC |  |
| Five <br> Colleges of <br> Ohio | X | X |  | F |  |  |  |
| Quaker <br> Consortium | X |  |  |  | Xeither |  |  |

Table 14: Using the Taxonomy to Classify the Consortial Relationships
Checks indicate that the group has met the requirements for a Comprehensive Consortium from Table 1.

Despite its title, the Quaker Consortium does not meet any of the six criteria. This partnership is an outlier due to its evolution, lack of overseeing body, absence of logistical structures, and the fact that one of the schools receives no tangible benefit from the relationship.

Based on the taxonomy (Table 2), the two categories of Logistical Support (Academic) and Logistical Support (Student Life) appear to dictate the successful integration of coinstitutional goals. They determine the level of Academic Integration, Shared Resources, and Integrated Campus Life. My findings suggest that logistics may actually play the most

[^5]significant role in the achievement of consortial success.
Certain other factors may also be present that influence the level of achievement in these consortia, including the unexplored issue of perceptions of institutional prestige, comparative selectivity in admissions, size of participating institutions, and balance of educational foci. These factors may play a pivotal role in making the decision to embark on a collaborative venture. As such, a study on institutional motivations behind the formation of consortial partnerships may provide further insight into how institutions can set the stage for success.

The taxonomy can serve as a guide for institutions seeking to begin new partnerships or to refine existing consortial relationships. Given the increasing importance of building collaborative partnerships in higher education, understanding these rules may ultimately contribute to the realization of Clark's consortial "field of dreams" (Peterson, 1999).

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## REFERENCES

Amherst College. (2011). Five college policies and procedures. Retrieved from https://www.amherst.edu/academiclife/registrar/fivecolleges

Amherst College. (2011). Meal plans. Retrieved from https://www.amherst.edu/campuslife/dining/meal_plans

Angel, S. (2006, September 6). Capitalizing on the consortium: Penn should be doing much more to encourage students to take classes at nearby liberal arts schools. The Daily Pennsylvanian. Retrieved from http://thedp.com/node/49936

Association for Consortium Leadership. (2011). About the institute. Retrieved from http://www.national-acl.com/institute/abouttheinstitute.asp

Association for Consortium Leadership. (2011). About us. Retrieved from http://www.nationalacl.com/about/

Baron, J. (2008, March 25). Commuting to class with the Quaker Consortium: program linking Main Line and Penn remains popular in the 'burbs. The Daily Pennsylvanian. Retrieved from http://thedp.com/node/55696

Boccella, K. (2009, February 22). Lone male student rooms at Bryn Mawr. The Philadelphia Inquirer. Retrieved from http://articles.philly.com/2009-02-02/news/24983950_1_dorm-room-campus-coed

Bryn Mawr College. (2011). Bi-College transportation department. Retrieved from http://transportation.blogs.brynmawr.edu/about/blue-bus-bi-co/

Bryn Mawr College. (2011). Bi-Co, Tri-Co, and Penn. Retrieved from http://www.bryn mawr.edu/about/bico_trico_penn.shtml

Bryn Mawr College. (2011). Bryn Mawr College mission statement. Retrieved from http://www.brynmawr.edu/about/mission.shtml

Bryn Mawr College. (2011). Parking. Retrieved from http://www.brynmawr.edu/ safety/parking/parking.htm

Bryn Mawr College. (2011). Swarthmore van (Tri-Co). Retrieved from http://www. brynmawr.edu/transportation/trico.shtml

CardSmith. (2011). Who we serve. Retrieved from http://www.cardsmith.com/whoweserve.htm\#ccolleges.

Claremont Colleges Library. (2011, July 28). About the Claremont Colleges Library. Retrieved from http://libraries.claremont.edu/about/libraries/

Claremont McKenna College. (2011). Residential life. Retrieved from https://online.cmc.edu/NetCommunity/Page.aspx?pid=991\&srcid=962

Claremont University Consortium. (2010, September 8). Claremont University Consortium mission \& values. Retrieved from http://www.cuc.claremont.edu/aboutcuc/mission.asp

Claremont University Consortium. (2010, September 8). History of the Claremont Colleges. Retrieved from http://www.cuc.claremont.edu/aboutcuc/history.asp

CollegeBoard. (2011). College Search: Bryn Mawr College. Retrieved from http://collegesearch.collegeboard.com/search/CollegeDetail.jsp?match=true\&collegeId=3 408\&searchType=college\&type=qfs\&word=bryn\%20mawr

CollegeBoard. (2011). College Search: Haverford College. Retrieved from http://collegesearch.collegeboard.com/search/CollegeDetail.jsp?match=true\&collegeId=3 $254 \&$ searchType=college\&type=qfs\&word=haverford

Colleges of the Fenway. (2000). COF strategic plan for academic collaboration. Retrieved from http://www.colleges-fenway.org/facultyCollaborationPlan.shtm

Colleges of the Fenway. (2010). About the COF. Retrieved from http://www.collegesfenway.org/about.shtm

Colleges of the Fenway. (2010). COF academic policy. Retrieved from http://www.collegesfenway.org/cr_doc_policies.shtm

Colleges of the Fenway. (2010). COF cross registration faqs for students. Retrieved from http://www.colleges-fenway.org/CrossregstudentFAQ.shtm\#Areallcoursesatallthe COFcollegesavailabletome

Colleges of the Fenway. (2010). COF cross registration faqs for students. Retrieved from http://www.colleges-fenway.org/CrossregstudentFAQ.shtm\#Doesthisclass countHowdoIgetittransferred

Colleges of the Fenway. (2010). COF cross registration faqs for students. Retrieved from http://www.colleges-fenway.org/CrossregstudentFAQ.shtm\#Whatifthehome schoolstartsearlier

Colleges of the Fenway. (2010). Cross registration for students. Retrieved from http://www.colleges-fenway.org/academicsRegister.shtm

Colleges of the Fenway. (2010). Employee cross registration guidelines. Retrieved from http://www.colleges-fenway.org/aboutFacts.shtm

Colleges of the Fenway. (2010). Facts about the Colleges of the Fenway. Retrieved from http://www.colleges-fenway.org/crossregemployee.shtm

Colleges of the Fenway. (2010). How to cross register. Retrieved from http://www. collegesfenway.org/howtocrossregister.shtm

Colleges of the Fenway. (2010). Libraries available to COF students. Retrieved from http://www.colleges-fenway.org/library.htm

Colleges of the Fenway. (2011). Around COF. Retrieved from http://www.collegesfenway.org/aroundcof.shtm

Colleges of the Fenway. (2011). COF intramurals. Retrieved from http://www.collegesfenway.org/intramurals/Intramuralofferings.htm

Colleges of the Fenway. (2011). COF intramurals: frequently asked questions. Retrieved from http://www.colleges-fenway.org/intramurals/faq.html

Colleges of the Fenway. (2011). COF minor in performing arts. Retrieved from http:// www.colleges-fenway.org/performingarts/minor_in_performing_arts.html

Colleges of the Fenway. (2011). Performing arts at the Colleges of the Fenway. Retrieved from http://www.colleges-fenway.org/performingarts/index.html

Consort Colleges. (2003, February 13). Five Colleges of Ohio memorandum of understanding regarding sharing of library materials. Retrieved from http://www.ohio5.org/CCCD_MOU.html

Consort Colleges. (2003, December 22). Consort circulation policies. Retrieved from http://www.ohio5.org/CCCD_Circ.html

Consort Colleges. (2007, February 21). Cooperative collection development: background. Retrieved from http://www.ohio5.org/default.html

College of Wooster. (2006). Creative and critical thinking: assessing the foundations of a liberal arts education. Retrieved from http://www3.wooster.edu/teagle/ default.php

College of Wooster. (2006). History. Retrieved from http://www3.wooster.edu/teagle/ history.php

Davidson, J. (2011, February 11). Haverford, Bryn Mawr cut Bi-Co News funding. The Phoenix. Retrieved from http://swarthmorephoenix.com/2011/02/10/news/ haverford-bryn-mawr-cut-bi-conews-funding

Dotolo, L.G., \& Horgan, T. (2009). A cooperative proposal to Mr. Obama: higher education consortia is $[s i c]$ an important solution to the present and future success of academia. Consortia Magazine, Retrieved from http://www.highereducation consortia.com/Spring2009/Spring2009HEConsortiaTodayTwo.html

Emmanuel College. (2011). Parking \& security. Retrieved from http://www.emmanuel. edu/GPP/Parking_and_Security/Parking_for_GPP_Students.html

Fenway Card. (2011). For parents. Retrieved from http://www.fenwaycard.com/ parents.htm

Fenway Library Consortium. (2009). Directory and maps. Retrieved from http://www. fenwaylibraries.org/

Fenway Libraries Online. (2011). The history of Fenway Libraries. Retrieved from http://flo.org/node/3

Five Colleges, Inc. (2003). Five college student coordinating board (FCSCB): statement of purpose. Retrieved from http://www.fivecolleges.edu/for_students/for_ students_studentboard.html

Five Colleges, Inc. (2003). Funding opportunities. Retrieved from http://www. fivecolleges.edu/administrative_programs/adminprog_funding.html

Five Colleges, Inc. (2003). Governance and administration. Retrieved from http://www.fivecolleges.edu/about_us/aboutus_gov_admin.html

Five Colleges, Inc. (2003). Interchange: Fare-free bus. Retrieved from http://www.fivecolleges.edu/academic_programs/academprog_bus.html

Five Colleges, Inc. (2003). Interchange: meal exchange. Retrieved from http://www.fivecolleges.edu/academic_programs/academprog_mealplan.html

Five Colleges, Inc. (2003). Joint administrative programs. Retrieved from http://www.fivecolleges.edu/administrative_programs/adminprog_programs.html

Five Colleges, Inc. (2003). Joint catalog. Retrieved from http://www.fivecolleges.edu/ libraries/libraries_catalogs.html

Five Colleges, Inc. (2003). Librarians' council. Retrieved from http://www.fivecolleges. edu/libraries/libraries_council.html

Five Colleges, Inc. (2003). Libraries. Retrieved from http://www.fivecolleges.edu/ libraries/

Five Colleges, Inc. (2003). Library locations. Retrieved from http://www.fivecolleges.edu/libraries/libraries_campusinfo.html

Five Colleges, Inc. (2003). Overview: about us. Retrieved from http://www.fivecolleges.edu/about_us/

Five Colleges, Inc. (2003). Student clubs and organizations. Retrieved from http://www.fivecolleges.edu/for_students/for_students_clubsandorgs.html

Five Colleges, Inc. (2003). To the power of five. Retrieved from http://www.five colleges.edu/

Five Colleges, Inc. (2009). Background: insights and observations. Retrieved from http://www.fivecolleges.edu/sites/planning/background_insights/

Five Colleges, Inc. (2010). Board of directors. Retrieved from http://www.five colleges.edu/about_us/aboutus_directors.html

Five Colleges, Inc. (2010). Departments/programs/committees/councils. Retrieved from http://www.fivecolleges.edu/academic_programs/academprog_deptprog.html

Five Colleges, Inc. (2010). Optimizing the consortial advantage by 2020: a strategic plan for Five Colleges, Incorporated 2010-2020. Retrieved from http://www.five colleges.edu/sites/planning/

Five Colleges, Inc. (2011). Academic calendar. Retrieved from http://www.fivecolleges. edu/academic_programs/academprog_academcal.html

Five Colleges, Inc. (2011). Five College calendar of events. Retrieved from http://calendar.fivecolleges.edu/FiveCol/calendrome.cgi

Five Colleges, Inc. (2011). Interchange. Retrieved from http://www.fivecolleges.edu/ academic_programs/academprog_intrchng.html

Five Colleges of Ohio. (n.d.). Mathematics @ The Five Colleges of Ohio. Retrieved from http://www.ohio5.org/webpagetemplate.html

Five Colleges of Ohio. (2002). Projects funded by the Ohio Five Foreign Language Technology Grant. Retrieved from http://www.ohio5.org/projects.html.

Five Colleges of Ohio. (2008). About us. Retrieved from http://www.ohio5.org/ /aboutus.htm

Google Maps. (2011). Wentworth to Wheelock. Retrieved from http://maps.google.com/ maps?saddr=Wentworth+Institute+of+Technology, $+550+$ Huntington + Ave,

> +Boston,+Massachusetts+02115\&daddr=Wheelock+College,+Riverway,+ Boston,+MA\&hl=en\&ll=42.338864,71.102571\&spn=0.009596,0.018432\&sll=42. 338118,-71.095791\&sspn=0.073596,0.147457\&geocode=FbIAhgIdLCrDyF6AK4jaX52Gw\%3BFfsWhgIdqQDD-yFklx4a41Lltg\&mra=ls\&t=h\&z=16

Google Maps. (2011). Emmanuel to Simmons. Retrieved from http://maps.google.com/ maps?saddr $=$ Emmanuel + College, + Boston, + MA\&daddr=Simmons + C ollege, + Boston, + MA\&hl $=$ en\&sll=42.33907,71.100935\&sspn $=0.004798,0.009216$ \&geocode=FbwShgIdVhDD-yFG60Uk_zasqw\%3BFX8KhgIdJRjD-ynpGGQe i3njiTHJ0qm9FmKsNw\&mra=ls\&t=h\&z=17

Hampshire College. (2011). History and mission. Retrieved from http://www.hampshire. edu/discover/430.htm

Harvey Mudd College. (2010). College catalogue 2010-2011. Retrieved from http://www.hmc.edu/academicsclinicresearch/catalogue1/catalogue-10111/introduction1/claremont-college-consortium.html

Haverford College. (n.d.). Academic partnerships. Retrieved from http://www.haverford. edu/academics/partnerships.php

Haverford College. (2011). Honor council: Bi-Co liaison. Retrieved from http://honor council.haverford.edu/guidelines/bico-liaison/

Johnson, C.Y. (2011, May 8). Collaboration: the mother of invention. The Boston Globe. Retrieved from http://articles.boston.com/2011-05-08/news/29523118_1_ research-scientist-journals-selkoe

Luther, J., Bills, L., McColl, A., Medeiros, N., Morrison, A, Pumroy, E., \& Seiden, P. (2003). Library buildings and the building of a collaborative research collection at the Tri-College Library Consortium: report to the Andrew W. Mellon Foundation. Unpublished manuscript, Council on Library and Information Resources, Washington, D.C., Retrieved from http://www.clir.org/pubs/
reports/pub115/contents.html
Marx, A.W., Hexter, R.J., Creighton, J.V., Christ, C.T., \& Holub, R.C. (2009, March 11). Background: from the directors of the Five Colleges [Electronic mailing list message]. Retrieved from http://www.fivecolleges.edu/sites/planning/background _directors/

MASCO. (2011). Who we are: about MASCO. Retrieved from http://www.masco. org/masco/about-masco

Massachusetts College of Art \& Design. (2011). Fenway Card. Retrieved from http://inside.massart.edu/campus_life/fenway_card.html

Minearo, R. (2009). Academic consortia. Consortia Magazine, Retrieved from http://www.highereducationconsortia.com/Summer2009/Summer2009Cooperatio nUpClose.html

Peterson, L.M. (1999). Cultures of cooperation. Proceedings of the Cultures of cooperation: the future role of consortia in higher education (pp. 1-34). www.fivecolleges.edu/about_us/images/cultures_of_cooperation_pro.pdf

Pomona College. (2010). Interdisciplinary programs. Retrieved from http://www.pomona.edu/academics/majors-and-minors/interdisciplinary.aspx

Pomona College. (2010). The benefits of the Claremont Colleges Consortium. Retrieved from http://www.pomona.edu/academics/curriculum/consortium.aspx

Reyes, B. (2010, September 9). Five College plan to increase cooperation. The Amherst Student. Retrieved from http://amherststudent.amherst.edu/current/news/ view.php?year=2010-2011\&issue=04§ion=news\&article=03

Ryan, K. (2011, January 6). Colleges of the Fenway provides opportunities for students [Web log message]. Retrieved from http://www.simmons.edu/blogs/

300thefenway/2011/01/colleges-of-the-fenway.php
Scripps College. (2011). The Claremont Colleges. Retrieved from http://admission. scrippscollege.edu/claremont-colleges

Simmons College. (2011). Train \& bus options. Retrieved from http://www.simmons. edu/offices/finance-administration/administrative/commuter-alternatives/trainsbuses.php

Smith College. (2011). Five college guidelines: course registration. Retrieved from http://www.smith.edu/registrar/registration_guidelines-fc.php

Swarthmore College. (2010). Course catalog 2010-2011. Retrieved from http://www. swarthmore.edu/cc_introduction.xml

Swarthmore College. (2011). Parking. Retrieved from http://www.swarthmore.edu/ $\mathrm{x} 16140 . \mathrm{xml}$

University of Massachusetts Amherst. (2010). Frequently asked questions. Retrieved from http://ualc.umass.edu/five_college_interchange/fivecollegefaqs/

University of Massachusetts Amherst. (2010). Transit services. Retrieved from http://www.umass.edu/transit/trip_planner.html

University of Pennsylvania. (n.d.). Policies governing the Quaker Consortium. Retrieved from http://www.college.upenn.edu/options/policies/quaker.php

University of Pennsylvania. (2010). Types of permits. Retrieved from http://cms.business -services. upenn.edu/parking/penn-parking-permits/types-of-permits.html

Walton, R.A. (2010, June 7). Welcome from the chief executive officer, Robert A. Walton. Retrieved from http://www.cuc.claremont.edu/aboutcuc/ceowelcome.asp

Wang, K. (2010, February 3). What's in the 'Quaker name'? The Daily Pennsylvanian. Retrieved from http://www.dailypennsylvanian.com/article/whats-quaker-name

Wentworth Institute of Technology. (2007). Fenway cash and meal (board) plans. Retrieved from http://www.wit.edu/Family/lep_acct.html

Zheng, C. (2005, January 19). Penn students neglect chances to take classes at other schools. The Daily Pennsylvanian. Retrieved from http://thedp.com/node/44424

Note: All URLs cited above were verified on August 1, 2011.


[^0]:    ${ }^{1}$ In this paper, the terms "collaboration", "consortium", and "partnership" are used interchangeably, which reflects how the schools in this study employ the terminology. All three terms refer to the close relationships formed among multiple institutions for the benefit of one or more members of the group.

[^1]:    ${ }^{2}$ The Bi-College Consortium, Tri-College Consortium, and Quaker Consortium are comprised of different combinations of the same four institutions. Each institution is only counted once in this tally.

[^2]:    ${ }^{3}$ The only limitation to this open enrollment applies to students at MassArt. Due to their Freshman Year Foundation program, these students have to wait until their sophomore year before taking courses outside of their home campus (Colleges of the Fenway, 2010).

[^3]:    ${ }^{4}$ All COF schools are part of the FLO group, except for Simmons College. Simmons students have access to expanded library resources via the Fenway Library Consortium (FLC). Membership in the FLC provides access to resources from a total of 16 institutions, including all of the COF schools (Fenway Library Consortium, 2009).

[^4]:    ${ }^{5}$ Haverford subsequently became a co-ed campus, in 1980, and the ratio of men to women is currently 49:51 (College Board, 2011).

[^5]:    ${ }^{6}$ For designation, each group must meet the criteria of at least two categories to be considered a Focused Collaboration and all six categories to be considered a Comprehensive Consortium.
    ${ }^{7}$ The joint library is technically part of the Tri-Co Consortium. However, Bi-Co students have a nested relationship, which allows them access to shared academic resources via exclusively Bi-Co portals.

