This qualitative case study explored the origins, evolutions, and challenges of 12 cross-disciplinary intellectual initiatives at a research university. Researchers conducted open-ended interviews with leaders of the 12 initiatives and used program literature to support the data gathered from the interviews. The study found that key factors such as the passionate commitments of scholarly leaders, access to timely and multiple resources, and the presence of collegial networks help these programs successfully navigate across traditional academic boundaries. Tensions such as the conflict between traditional department structures and collegial styles of decision-making lead to some challenges related to coordination and communication, time, resources, reward structures, and leadership transition. Despite these tensions, these programs find ways to flourish, bringing in resources, and creating spaces for a critical mass of intellectual exchange. An appendix describes the programs studied. (Contains 22 references.)
Intellectual Initiatives at a Research University: Origins, Evolutions, and Challenges

Susan H. Frost, Paul M. Jean, Daniel Teodosescu, Amy B. Brown

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Abstract. This qualitative case study explores the origins, evolutions, and challenges of twelve cross-disciplinary intellectual initiatives at one research university. The study found that key factors such as the passionate commitments of scholarly leaders, access to timely and multiple resources, and the presence of collegial networks help these programs successfully navigate across traditional academic boundaries. Tensions such as the conflict between traditional departmental structures and collegial styles of decision-making lead to some challenges related to coordination and communication, time, resources, reward structures, and leadership transition. Despite these tensions, these programs find ways to flourish, bringing in resources and creating spaces for a critical mass of intellectual exchange.

Cross-disciplinary activity that spans traditional boundaries is redefining academic work for many scholars at research universities (Frost and Gillespie, 1998; Geiger, 1990; Newell and Klein, 1996; Slaughter and Leslie, 1997; Sporn, 1999). Just as industry has used flexible, cross-disciplinary teams to spark innovation, many academics seek new kinds of intellectual alliances to address complex social and scientific problems. Many of these pressing problems require the combined efforts of scholars trained in different disciplines. Although cross-disciplinary academic units have become increasingly important in higher education in the United States, particularly at research universities, we know little about how they originate and function. Before university leaders can provide the particular forms of support these programs require, they need to understand how successful programs form and meet the challenges they face.

This paper presents the results of an analysis of twelve cross-disciplinary intellectual initiatives at Emory, a research university located in the southeastern United States. Because of the decentralized structure of this university, researchers attempted to discover the unique aspects
and challenges experienced by cross-disciplinary programs that range across eight of its schools. The research is part of a systematic exploration at Emory about the characteristics of successful programs and the conditions that support them. When universities explore the attributes and the requirements of such pockets of innovation, they can tailor policies and resources to support similar programs (Hirschhorn and May, 2000). From approximately forty programs that we identified as major cross-school initiatives at the university in 2000, we selected twelve for in-depth qualitative analysis. The twelve programs reflect the diversity of cross-school programs at Emory in topic, size, and scope, ranging from large centers funded by agencies like the National Science Foundation and the Pew Charitable Trusts to faculty reading groups with modest financial needs that Emory meets.

Cross-disciplinary Intellectual Initiatives and Academic Organization

Recent research suggests that interdisciplinary approaches to teaching and research no longer cling to the edges of university life but increasingly flourish in the academic core (Geiger, 1990; Newell and Klein, 1996; Slaughter and Leslie, 1997; Sporn, 1999). Moreover, new academic structures for accomplishing such work have become “primary sites of intellectual work” for many faculty as well as students (Newell and Klein 1996: 153-163). Accordingly, neither university departments nor disciplines can claim exclusive rights to the intellectual life of faculty.

Although institutions of higher education are sometimes thought to be insulated from external forces, several scholars have noted that the rise of cross-disciplinary centers reflects, in part, how colleges and universities adapt to environmental influences. Slaughter and Leslie (1997) acknowledge the destabilizing pressure of globalization during the latter half of the
twentieth century for the rise of interdisciplinary initiatives. Similarly, Sporn (1999) views changing patterns of university work as adaptations necessary to survive economic, political, and social threats to the traditional mission and structure of universities. For example, organized research units (ORUs), which developed as partnerships between the United States government and many American universities during and after World War II, have played a "major role in expanding research and raising institutional reputations" (Geiger 1990: 11). The applied research functions of interdisciplinary organized research units complement the research mission of traditional departments while also providing a buffer for the academic core against the pressures of societal demands for applied research solutions (Geiger, 1990).

As interdisciplinary scholarly programs become more central, particularly for the research university, they challenge administrative structures and policies heavily skewed in favor of traditional departments and disciplines (Frost and Gillespie, 1998; Geiger, 1990; Newell and Klein, 1996; Slaughter and Leslie, 1997; Sporn, 1999). While the external focus of these programs often attracts outside funding and prestige, which helps universities adapt to external societal and economic pressures, the breadth of their missions and activities can conflict with relatively narrow and specialized departmental and disciplinary boundaries. These new interdisciplinary research and teaching structures are complex systems, sidestepping the traditional organizational maps of the university. Indeed, these structures may even link with one another in "a shifting matrix, replete with feedback loops and unpredictable synergistic relationships" (Newell and Klein 1996: 165). Though interdisciplinary initiatives complement departments by doing the work that departments are not designed to do, they also may compete with departments for intellectual and resource capital. As Newell and Klein (1996: 161) point
out, initiatives can “strain the budgetary, staffing, and promotion/tenure procedures embedded within the traditional departmental structure.”

A recent case study of two interdisciplinary initiatives at Harvard reveals how traditional administrative structures and intellectual innovation across disciplines often clash (Bohen and Stiles, 1998). Harvard found that administrative structures designed to support the work of departments and schools often “impede individual and collective progress in the long run” of cross-disciplinary work. For example, the interdisciplinary activities of program leaders and participants often occur on top of their departmental responsibilities. Furthermore, reward structures that favor individual scholarly achievement frequently overlook faculty engagement in teaching and research not directly related to departmental and disciplinary purpose. Departments may desire to maintain boundaries that have served them well, especially in an environment of fiscal retrenchment (Bohen and Stiles, 1998: 40-41).

The bureaucratic and collegial management styles that form the loosely coupled systems found in universities provide both opportunities and challenges for interdisciplinary programs (Baldridge et al., 1991; Weick, 1991). While universities generally adhere to traditional models of rational decision-making and standard operating procedures integrated by formal hierarchies, the highly professional nature of faculty work relies upon collegial styles of governance and interaction. Successful innovation in teaching and research is, in part, based on a community of peers anchored in professional authority and shared decision-making. However, the difficulties of anticipating and managing conflict with bureaucratic structures and boundaries frequently beset consensus models of decision-making. Cross-disciplinary collaboration, with its special emphasis on consensual interaction, often strains the traditional bureaucratic hierarchy of departments and disciplines. This tension between the collegial interaction needed for new
knowledge creation across disciplines and the powerful constraints of departmental organizational boundaries may be more prevalent at the research university (Damrosch, 1995; Geiger, 1993; Ruscio, 1987). Because research universities serve a dual mission of supporting sponsored research and liberal teaching, they are particularly susceptible to tensions that occur between producing specialized knowledge and fostering faculty collaboration across fields. For research universities, the proliferation of disciplinary specialties in which star scholars often reign suggests a need to develop new mechanisms for intellectual exchange aimed at integrating knowledge across fields (Bellah, 1996; Boyer, 1990).

Despite the numerous challenges facing interdisciplinary collaboration, many scholars believe that cross-school intellectual initiatives create important benefits. Besides increasing the institution's prestige and attracting external funding (Geiger, 1990; Slaughter and Leslie, 1997), these programs provide the intellectual inspiration that both motivates faculty whose interests extend beyond their immediate fields and creates new knowledge through links across disciplines (Benowitz, 1995; Bohen and Stiles, 1998; Hollingsworth, 1996; Rice, 1996). Intellectual interaction across disciplinary and departmental boundaries improves the ability of scholars to address wide-ranging societal problems. Particularly for the natural sciences, frequent and intense interaction between individuals with diverse ideas and viewpoints seems to increase the potential for innovative breakthroughs. As Bohen and Stiles (1998) suggest, developing appropriate ways to understand and evaluate these innovative programs represents a major challenge for researchers and university leaders.

Those who aspire to nurture such innovative programs might look to the work of scholars of management and organizational development. For example, some recommend that leaders who compete on the edge of innovation recognize the unpredictable, uncontrolled,
inefficient, continuous, and diverse nature of their work. Rather than looking outside the organization for models to emulate, some leaders study the details of successes and failures within the organization. Then they work to mold and transfer strategies that work in that environment to other local venues. This practice uses the organization’s particular characteristics and nuances, rather than attempting to accommodate the ways it differs from the environmental home in which an outside model might thrive (Brown and Eisenhardt, 1998; Hirschhorn and May, 2000).

*Research Questions*

To better understand the needs of intellectual initiatives that cross two or more schools, Emory researchers designed a study that focused on the development of cross-school initiatives. Based on prior research and previous contextual knowledge about the university, we paid special attention to similarities between programs and the challenges they face in terms of administrative structure and culture. Because Emory is composed of eight schools (including an arts and science college; several health sciences professional schools such as medicine, public health, and nursing; and the professional schools of law, theology and business), creating activities that span these separate entities sometimes appears daunting. For example, program planning, budgeting, and even semester calendars often lack mechanisms for cross-school coordination. To gain an initial understanding of these programs, we focused on revealing common factors that may be instrumental in learning how these programs originate and evolve. We proposed the following research questions:

- What factors help shape the origins of cross-school intellectual initiatives?
- What factors influence their evolution?
What challenges do they encounter?

What benefits do they offer for both faculty and the university?

Methods and Data Analysis

We employed a qualitative case study approach in order to learn how a set of uniquely structured programs functions in the context of one university (Merriam, 1998; Yin, 1994). After compiling an inventory of over forty such programs, we selected for in-depth study twelve programs that reflected the diversity of such initiatives across the various schools and colleges within the university. To be included in the survey and more in-depth study, programs had to cross at least two schools of the university and feature a significant research component for faculty. For example, we did not include programs whose mission focused primarily on providing joint degrees for students. The twelve ranged from large centers receiving funding from outside agencies to faculty reading groups with modest internal funding. The programs included: African American Studies; Center for Behavioral Neuroscience; Center for Disease Ecology; Center for Health, Culture, & Society; East Asian Studies; Halle Institute for Global Relations; Law and Religion Program; Psychoanalytic Studies Program; Religion Department Seminar; Religion and Science Faculty Group; Russian Studies; and Violence Studies (see appendix A for a description of the programs).

We conducted open-ended, semi-structured interviews with leaders of the twelve initiatives and used program literature to supplement the data gathered from the interviews. The interviews were taped and transcribed. An advisory group of faculty from across the university provided feedback on study design, interview protocol construction, and data analysis. In the winter of 2000, an advisory committee of faculty known for their involvement in cross-school
programs provided feedback in designing a protocol to be used in interviews with leaders of cross-school centers. The protocols included forty questions about the origins, missions, organizational structures, support, barriers, and future plans of cross-school initiatives.

Several limitations pertain to the study. The first concerns limits related to generalizing from the findings of qualitative research (Merriam, 1998; Patton, 1990). Because we conducted a qualitative analysis of a limited subset of diverse programs at the university as a preliminary investigation, caution should be taken when applying our findings both across the university and to other research universities. This study was undertaken with limited resources as a first step to better understand the nature of these programs at our institution; it is by no means fully indicative of the depth and breadth of cross-school initiatives at our institution or nationally. Information based on how these types of programs function and persist in the context of Emory’s culture and structure forms a part of a larger research agenda.

Other limitations concern both the nature of the data sources and the sample. Because we relied primarily upon narratives from interviews with program leaders, we may have failed to capture potentially divergent views of faculty and students who also participated in these programs. However, due to limited resources, we determined that this approach would provide valuable insight into the background of these programs from the perspective of their leaders or founding members. Unfortunately, we were unable to locate faculty members representing initiatives that failed. Although we canvassed the faculty for such narratives, people seemed reluctant to discuss negative experiences. Thus, our sample of programs, though diverse in terms of scope and content, includes only leaders of programs that have achieved, at minimum, a reasonable level of success and stability. Furthermore, because of the rapid growth at Emory over the last two decades, many of the initiatives in this study are relatively new (especially those
related to research). Eight of the twelve programs have existed five or fewer years on campus. The other four offered experiences from over six to thirty years, giving us some idea of patterns of longer evolution.

Findings

Below we present the findings based on interviews with the leaders of the cross-school intellectual initiatives and supplemental data describing the missions and activities of these programs. We subdivide the findings according to origins, evolution, challenges, and benefits.

Origins

The data indicate that several important factors shape the genesis of cross-school initiatives at Emory. Important factors include the vision, characteristics, and collegial connections of the founding scholar; structures of collegiality; outward focused mission and connection to resources outside of Emory; and timely administrative support.

Vision, characteristics, and collegial connections of founding scholars. Most of the twelve programs we studied originated through the scholarly vision of a single faculty member or a few individuals collaborating on an idea to which they were powerfully committed. For example, the founder of the Psychoanalytic Studies Program, with a background in both anthropology and psychoanalysis, was uniquely qualified to bring together clinical and academic perspectives on psychoanalysis. Faculty from the Psychoanalytic Institute in the Medical School join scholars from law, history, anthropology, and literature to discuss the history, theory, and application of psychoanalytic thought. The leader remarked that, even though the program was small, it had attracted a high degree of national interest and prestige. In another example, a biologist’s vision of merging principles of ecology and evolutionary biology with the study of
infectious disease led to the creation of the Center for Disease Ecology. Almost thirty years ago, a sociologist and a humanities faculty member grasped the potential for developing an African-American Studies program that continues to this day.

According to the program leaders we interviewed, the key personality traits needed to support the origin and early development of cross-school initiatives include collegiality and its related characteristics: dedication, patience, consistency, imagination, tact, organization, and political skills. For example, the director of the Program of African American Studies believed that “the directorship works better when there is a sense that is beyond obligation or duty,” which he called “a passionate commitment to the topic.” The director of the Psychoanalytic Studies Program cited the need for political and organizational skills that accompany a dedication to the program as an intellectual project, declaring that “commitment is the key.” In a similar vein, the director for Russian and Eastern Studies noted that a certain “public spiritedness” along with a “consistency of vision” provide “critical” ingredients for launching cross-school initiatives. For the leader of the Center for Injury Control, interdisciplinary programs require both leaders and faculty who can think and act “outside the box . . . reaching across disciplines and looking for connections.” According to the Violence Studies Program director, good leadership requires, in addition to open-mindedness, diplomatic skills and salesmanship to “sell the program” not only to potential participants but also to the “administration and the larger community.”

Beyond providing the initial vision for cross-school initiatives, these leaders enjoyed strong collegial networks that provided important intellectual and financial resources. Often founders of initiatives drew upon relationships established outside the contexts of their home discipline—in other interdisciplinary forums at or beyond Emory, or through work on university-wide committees. For example, the well-established intellectual ties of the founder of the
Psychoanalytic Studies Program both across the university and with the American Psychoanalytic Association attracted a blend of internal seed money and scholarly recognition both inside and outside to help launch and sustain the program. When key administrators noticed the passionate interest in psychoanalysis as a scholarly topic recurring in discussion groups encouraged by the founder, seed money soon followed.

*Structures of collegiality.* The existence of structures of collegial or collaborative relationships across the university also seemed to spawn the emergence of cross-school initiatives. For example, instances of team-teaching encouraged faculty to reach out to a colleague beyond their disciplines and strengthen relationships across departments and schools. A relationship that developed among three faculty members in religion, biology, and physics in support of a team-taught course in religion and science grew into the Science and Religion Faculty Group. In some cases, joint-appointments provided a platform to support new collegial relationships across disciplines. For example, one faculty member with a joint appointment in history and public health noted that his official status in two different schools was indispensable to the subsequent development of the Center for Health, Culture, and Society. Two other program leaders pointed out that their joint appointments serve as an easily recognizable badge of expertise in multiple disciplines to deans and other administrators who can provide support to new programs.

*Outward focused mission and connection to resources outside of Emory.* Almost all of these programs tended to look beyond narrowly defined and isolated traditional research fields. We found that predominantly outward-looking and problem-based research missions of cross-school initiatives are crucial for drawing the initial interest and support for these programs. These social missions tapped into the idea of knowledge in service to society, inspiring
collaboration across the traditional divisions of the university as well as addressing fundamental shifts in American culture. For example, the Law and Religion program merged with the Human Rights Watch to develop the Religion and Human Rights Project. The Center for Health, Culture, and Society gathered scholars, community leaders, and public health officials for a symposium on community-based approaches to presenting disease. The Center for Behavioral Neuroscience, among other things, focuses on the meaning of the recently mapped human genome. The Program of African American Studies, which emerged out of the civil rights movement in America, continues to explore the significance of race in American culture. Meanwhile, the Science and Religion Faculty Group helps its members grapple with issues such as physician-assisted suicide and genetic screening.

Because of the outward focus of their missions, collegial connections involving collaboration across disciplines and across institutions of higher learning in Atlanta played an important role in spawning cross-school initiatives. Three-fourths of the initiatives at Emory were closely tied to some of the resources available in the Atlanta metropolitan area, which include the Centers for Disease Control, the American Cancer Society, the Carter Center for Human Rights, and higher education institutions like the Georgia Institute of Technology, Georgia State University, and Morehouse University Medical School. For example, the Center for Behavioral Neuroscience drew on Emory researchers and students together with colleagues from several local universities to win their grant for investigating the relationship between neurology and social behavior. A faculty leader we interviewed described finding Emory and the surrounding area the right combination of resources in biology and public health necessary for applying ecological and evolutionary principles to understanding the emergence of infectious disease. In another example, the proximity of the Psychoanalytic Institute to the Medical School,
the Law School, and the Institute of Liberal Arts provided sufficient intellectual capital as well as
shared meeting places to help spawn the Psychoanalytic Studies Program.

Health science-based programs, however, were not alone in finding resources in Emory's
urban context. Several cross-school programs that draw their strength from humanities and
social science faculty also find support from beyond the gates of the university. For example, the
Law and Religion Program regularly finds area clergy, lay people, and practicing attorneys at
their conferences on topics such as law and human rights, or law and family. In partnership with
local agencies that address the social problems so common to urban areas like metropolitan
Atlanta, Law and Religion also offers internship programs for students, as do the Violence
Studies Program and the Program of African American Studies.

Timely administrative support. Finally, the interviews reveal that early enthusiasm and
support from central administrators often facilitated the establishment of cross-school programs.
Early support or "seed money" from the university played a vital role in developing many of the
cross-school initiatives studied. Six of the twelve programs relied upon this kind of seed money.
For example, early financial commitment from the university and from a state governmental
agency played a key role in winning a 20 million dollar grant from the National Science
Foundation to launch the Center for Behavioral Neuroscience. Although the Law and Religion
Program later received funding from a number of schools and administrative units as well as
external grants, several thousand dollars of seed money from the provost's office helped establish
the program in 1982. Even though the Halle Institute of Global Learning received an external
gift early on, additional money from the provost's office aided the program's set up. In addition,
many leaders described the early support and enthusiasm of deans, the provost, department
Evolution

Although a majority of programs studied were five years old or less, some patterns emerged about their development. The most important factors in shaping their evolution involved access to diverse resources and funding, and adaptability of governing structures and mission (including the continued importance of collegial networks tied to dynamic leadership).

Access to diverse resources and funding. Our study finds that initiatives depend upon access to diverse resources and funding to ensure their sustainability. Leaders of these programs talked about a mix of outside-in and inside-out approaches to funding for their mission and activities. For some programs, the offices of the provost and school deans play a continuing role in providing some financial support. Six programs continued to receive support beyond the seed money on some level from central or school-based administrative resources. Almost all initiatives in this study have received some funding from external agencies, while four of the six programs receiving administrative support also rely upon external grants. Many of the programs we studied rely upon substantial grants from agencies such as the National Science Foundation, the National Institutes of Health, the Pew Charitable Trust, and the Ford, Mellon, and Rockefeller Foundations. Leaders that relied on several sources did not seem to feel overly obligated or tied to any one source as they charted the course of their initiatives. As the Center for Injury Control director noted, “since we are not dependent on anybody’s funding, we kind of go wherever we want.” He added that the environment made him feel free to “go over and make a deal with Arts and Sciences or put together a project in the Medical School.”
Adaptability of governance structures and mission. The adaptability of leadership and governance structures also influenced the development of these programs. Our findings suggest that leadership and governance, like funding, tend to expand into an interconnected, collegial web of networks across the university as initiatives evolve over time. These programs often relied upon a small core administrative structure while accomplishing much of the work through collegial networks of faculty across departments and schools. Ten of the twelve programs relied on a staff of less than five people, while only one had a large staff (sixteen or more). Beyond the core staff, these programs drew on a core group of faculty to accomplish their mission: while five programs had a large affiliated faculty of over twenty professors, the other seven had between six and twenty. While these programs varied in their approaches to governance, some of the more mature initiatives developed committee-based and collegial decision-making structures that permit substantial flexibility for program management.

Over time, flexible governance structures permitted changes in focus and activities in line with shifting faculty interests and funding opportunities. According to the Center for Injury Control director, the center’s structural and funding flexibility permits a certain “freedom to range across fields, issues, and disciplines, and put teams of people together to tackle problems or challenges.” As the director of the African American Studies explained, decentralized leadership “builds faculty buy-in and commitment to the program.” In some cases, the requirements of external funding agencies influenced the formation of executive or advisory boards that led initiatives away from the initial guidance of a single faculty member with a strong vision for the program. Older initiatives (those in existence for 15 or more years before the study began) tended to evolve from one or two central leaders into a broader leadership structure that relies on a core group of faculty to chart a strategic course. Even as such programs incorporated
a wider range of voices for strategic decision-making, they often left daily decisions to one or two core leaders. By expanding into a more inclusive leadership structure, these programs recognized the importance of providing faculty with a stake in governance. For example, the Law and Religion Program has a 35-member university committee and a seven-member executive board that enables the program to address its future. Most of the initiatives that were led by an advisory board or committee make decisions through a majority vote, although some strive for consensus on all key decisions.

Just as the organizational structures changed over time in some cases, so did the missions or the activities. Interestingly, none of the leaders envisioned a natural endpoint for their initiative. Instead they described a cycle of one project dying down as another rose in its place. This adaptability allowed initiatives to serve the interests of diverse constituencies within the faculty, as well as adapt to changes in scholarly fields, resources, and available technologies. One faculty seminar, inspired by several professors' interest in team-teaching in science and religion seminars, grew to serve the research interests of a broader group. Several others began with a focus on faculty research but added graduate students over time. A few programs developed undergraduate majors or minors, as well as graduate-degree programs. One program that began as an advanced exploration of topics across history and public health for faculty later developed fellowship opportunities for graduate students and plans eventually to offer more courses for a greater variety of students.

Because the design of this study necessarily excludes initiatives that have no research mission, it is interesting to note that all of the initiatives feature some kind of educational component. Though only one-third of the programs studied offer a degree or minor concentration for undergraduates or graduate students, all offer undergraduate courses, open
lectures, internships, or training opportunities for graduate students. Often, this educational component provides key resources for initiatives as well. In some cases, a commitment to undergraduate or graduate education helped secure external or internal funding. In other cases, graduate students contributed intellectual energy, enthusiasm, and work. Two leaders specifically identified the labor of graduate students—both intellectual and logistical—as an important resource for their program.

Challenges

Interviews with leaders revealed that the programs faced similar challenges: coordination and time constraints, resource access and faculty rewards, leadership transition, and communication across departments and initiatives.

Co ordination and time constraints. First and foremost, many of the faculty leaders frequently mentioned time constraints experienced by both leaders and participants. Many faculty leaders in this study described time pressures related to juggling multiple responsibilities as the most serious obstacle to faculty participation in cross-school initiatives. Many directors indicated that interdisciplinary work is done “on top of” departmental responsibilities. As the director of the Center for Injury Control observed, running the program is often a “one man show” in performing administrative duties and scholarly activities across departments and programs in the School of Public Health and the Medical School. While leaders recognize the value of “sweat equity” in proving the worth of a new approach to knowledge, they also acknowledge the difficulties of wearing “multiple hats” while being “spread too thin” across research, teaching, and service duties within their home departments.
Resource access and rewards. Conflicts with departments over access to faculty labor and the lack of acknowledgement about the value of interdisciplinary work in tenure and promotion presents another set of obstacles. For some of the leaders we interviewed, conflicts with departments over duties of teaching, research, and service represented their greatest obstacle in accomplishing the work. For example, faculty who participate in interdisciplinary centers often face a lack of recognition for tenure or promotion for the scholarly activities that take place outside of their discipline.

In general, most of the leaders seemed mindful of developing ways to enhance official recognition of each participant’s work. For example, the African American Studies program provides detailed letters that describe the quality and volume of work done for the initiative by faculty members, both to the department for the faculty member’s fourth-year review and to the faculty council when tenure is being considered. Such practices, according to the director, “have played a valuable role in securing tenure for young faculty,” who sometimes fear that interdisciplinary scholarship may be undervalued.

Closely related to this issue are conflicts of faculty time and labor between initiatives and departmental homes. Leaders of Violence Studies, the Halle Institute for Global Learning, and the Psychoanalytic Studies Program followed a practical way to avoid potential conflict with departments over “borrowing” faculty who may teach interdisciplinary courses. They rotated demands among several departments across participating faculty or incorporated work already being done in the home disciplines of faculty participants. Thus, no single department’s resources become overtaxed in the support of an interdisciplinary initiative. Leaders also employed the strategy of cross-listing courses in order to ensure departments that the work of their faculty members gains proper recognition and credit for teaching.
The different reward structures that exist in different sectors of the university can also present barriers to cross-school collaboration. Scientists often raise part of their own salaries through research grants from agencies like the NIH or NSF, whereas professors in the arts and sciences generally have their research underwritten by more fixed salaries from the university. Because of this traditional way of structuring rewards in the academy, several faculty leaders noted greater difficulty for faculty in medicine and public health to make time to participate. As one director with a joint appointment in public health and the arts and sciences said: “It’s much easier for someone in the arts and sciences to participate on a regular basis than it is for someone in the health sciences.”

**Leadership transition.** Although some leaders of cross-school initiatives indicated a concern for stalled progress, most faculty leaders foresaw a continued evolution in topics, activities, and funding sources. No leaders envisioned a natural endpoint to their programs, although several individuals expressed concerns over successful transitions in leadership. In some cases, initiatives tend to be identified with one faculty member alone. Several faculty leaders, especially those associated with centers that lacked a more formal or committee-based structure, voiced similar concerns that called for more ways to institutionalize the collegial connections and knowledge that had fueled their programs. The director of the Halle Institute for Global Learning, for example, indicated some difficulty in preparing for new leadership: “What do we want the Halle Institute to do and be? A big decision like that needs the input of a lot of people, but you need a process by which you reach a decision, and we have not done that.”

**Communication.** Another obstacle to successful programs is poor communication across departments and initiatives. Leaders of programs offering courses or degrees noted communication obstacles most often because they face difficulties coordinating schedules and
financial aid across the schools. Several leaders, for instance, described the lack of cooperation they received from administrative offices, like the registrar. These problems can also affect students. As the director of the joint degree program for the Law and Religion Program noted: “it really takes an enterprising student and a tenacious administrator to make sure these bureaucratic challenges don’t discourage students from doing interdisciplinary work.”

Several program leaders called for better communication and linking of activities across interdisciplinary programs to strengthen research, teaching, and faculty recruitment. In addition to sharing information about overcoming practical or logistical struggles, communicating across initiatives allows faculty members to build on shared research interests. In one case, the Violence Studies Program emerged out of discussions between a faculty member with a passion for understanding violence in society and the director of the Center for Injury Control. Although faculty leaders are wary of adding bureaucracy or administrative hurdles, several suggested establishing a dean or special committee of interdisciplinary research that might act as clearing house for these sorts of initiatives and provide more “institutional memory.”

Benefits

The faculty leaders we interviewed observed a number of benefits from the development of cross-school initiatives for both participating faculty and the university. Despite the substantial and diverse challenges from involvement in cross-school initiatives, program leaders described a sense of intrinsic reward. Some leaders described a connection to an “intellectual refuge,” where one can “refresh oneself intellectually” or experience “great intellectual stimulation.” According to the co-director of the Religion and Science Group, his “whole academic life has been radically enhanced by the opportunity to talk with physicists and medical
doctors.” Some leaders described that many faculty participants report experiencing an enhanced sense of collegiality, reinvigorated approaches to teaching, opportunities to develop new pedagogical strategies, and exposure to different intellectual perspectives.

In addition to benefiting faculty, some leaders described benefits for the university, such as creating programs of distinction, enhancing prestige, and supporting collegiality and intellectual community. Many faculty leaders described the intellectual enrichment that flows from working with colleagues from other fields “over a sustained period of time” and the subsequent sense of collegiality and friendship across campus. Some believed that creating sanctuaries for a “critical mass of idea exchange” spawns collaborative research, and, in turn, brings external funding to the university. Others noted that cross-school initiatives provide avenues to academic distinction that build on the strengths of faculty. Leaders of some of the smaller programs, in particular, noted the national and international prestige that their programs garnered the university based on what they considered to be a small investment.

Discussion

Although the twelve cross-school intellectual initiatives we studied display a remarkable diversity of size, structure, and activities, some common factors seem to influence their growth and development. Moreover, common factors relating to leadership, governance, collegiality, resources, and funding often reinforce each other and build sufficient critical mass to support and sustain new programs. We also found evidence for several tensions supported by the literature that persist across these programs. One tension exists between the outward focus of the missions and activities of these programs, and the reliance upon the leadership of local scholars. Ironically, the ability of cross-disciplinary programs to accomplish external alliances and attract
external research support depends on the internal dynamics necessary for their formation and evolution (Geiger, 1990; Slaughter and Leslie, 1997; Sporn, 1999). A second tension involves conflict that sometimes arises between the collegial communication necessary to support interdisciplinary research and teaching, and the traditional, binding administrative structures associated with departments and schools (Baldridge et al., 1991; Bohen and Stiles, 1998; Newell and Klein, 1996; Weick, 1991).

Key factors that shaped the origins of cross-school initiatives involve the passionate vision, unique characteristics, and powerful collegial connections of founding scholars. Many programs that cut across disciplines emerged out of the scholarly vision of a single faculty member or a few individuals collaborating on an idea to which they were deeply committed. Furthermore, the ability to attract sufficient resources to get a program off the ground often seems related to the interconnection between the drive of individual scholars and the existence of both personal and university-wide collegial networks. When scholars with a "passionate commitment to the topic" draw upon well-established intellectual ties across the university and beyond, they often succeed in attracting sufficient seed money and early administrative support to found and develop an interdisciplinary program. Also, the proximity of medical and other types of research organizations and universities provided nearby sources of funding and intellectual capital to support the outward-looking and problem-based missions of these initiatives. Our findings confirm the observation by Newell and Klein (1996) that interdisciplinary programs tend to link organizational units in an ever-shifting matrix of synergistic relationships.

Several synergistic or mutually interacting factors also seem to influence how cross-school initiatives at Emory are sustained. As these initiatives develop, the availability of multiple resources and funds, along with non-hierarchical and collegial structures of program
governance, permitted programs sufficient flexibility to forge unique sets of ties and funding sources. These conditions also allowed programs to maintain considerable freedom to adapt their missions and activities as needed. Thanks to multiple funding sources that ensure the survival of programs, faculty leaders were also relieved of feeling an especially heavy sense of obligation to any one source. In addition, the absence of formal governance structures helped permit program leaders to network across various units of the university, which enhanced their ability to uncover multiple sources of direct and indirect support. The flexibility and adaptability that characterize these programs also allow the balance between research and teaching to adapt as needed over the program's life span. Often, educational program components complement the research mission, helping to draw in resources such as graduate students who provide additional energy and support.

Even as these various complimentary factors provided the necessary ingredients for the origins and continued sustainability of the cross-school initiatives, the data further revealed a number of challenges related to several tensions inherent in higher education, particularly at the level of the research university. The first tension exists between the outward focus of these programs that attracts external links and resources and the reliance on the internal leadership needed for their formation and evolution (Geiger, 1990; Slaughter and Leslie, 1997; Sporn, 1999). These programs have a strong external focus in their research goals, supporting Geiger's contention that interdisciplinary programs such as organized research units play a "mediating" role, linking the "knowledge demands of society and the knowledge-producing capabilities" of universities. All twelve programs articulated research missions that address issues of critical interest to our society, from the causes and prevention of violence to analyzing the recently mapped human genome.
However, as interdisciplinary programs and centers extend outward beyond the organizational confines of their host universities by drawing outside support and funding, they rely upon the passionate vision and capabilities of scholars who create and sustain them through collegial networks. While the outreach inherent in the mission of cross-school intellectual initiatives at Emory forges advantageous ties for building intellectual, financial, and administrative capital, these scholarly leaders often have to navigate across minefields of internal structures of institutional management based on department and school-based organizational boundaries.

At the same time, this tendency to be externally oriented and influenced by environments beyond the university may also threaten the internal management of these programs. For example, the intellectual work of the university may become beholden to the interests of their non-university sponsors. Such a relationship may undermine the traditionally recognized contract between society and universities that grants “faculty and universities a measure of autonomy in return for the disinterested knowledge that serves the public welfare” (Slaughter and Leslie, 1997: 222). Undue influence from funding agencies regarding the intellectual content of scholarship has the potential to erode “the validity of knowledge” over its potential uses (Geiger, 1990: 8). Although the leaders we interviewed did not specifically address this problem, we observed that the requirements of external sponsors influence the organizational structure of centers when a funding agency requires a hierarchy of leadership or a board of directors. However, our finding about the significance of a faculty leader’s vision and passionate commitment to an idea for sparking these initiatives would seem to partially mitigate the undue influence of external sponsors, at least as an impetus to a program’s beginning.
A second tension emerges from the internal dynamics within the university. Conflict sometimes arises between the free-flowing, collegial communication necessary to support interdisciplinary work and the traditional, administrative structures connected to departments and schools (Baldridge et al., 1991; Bohen and Stiles, 1998; Newell and Klein, 1996; Weick, 1991). We identified four major challenges associated with these conflicts: coordination and time constraints, conflicts over resource access and rewards, leadership transition, and communication. First, because leaders of these programs often act as a “one man show,” time pressures abound, as they must accomplish related work in addition to meeting the responsibilities to their home departments. The nature of this work, often as a “night job,” as Bohen and Stiles (1998) call it, is dysfunctional; our findings underscore their warning that this pattern impedes effective cross-disciplinary work. As a result, our findings indicate the importance of working with faculty leaders involved in coordinating cross-school programs to help articulate needs, set workable boundaries, and balance their diverse roles and responsibilities.

Second, conflict with departments over resources for and recognition of interdisciplinary research and teaching creates difficulties over “borrowing” labor from home departments of faculty participants. Faculty leaders repeatedly voiced concerns about the evaluation of their cross-school work in tenure and promotion decisions. As Bohen and Stiles (1998) note, the fact that the reward structure of the research university is geared toward individual endeavors rather than collaborative efforts presents a serious obstacle for cross-disciplinary scholarship.

Third, although these programs often rely upon dynamic founders to create and sustain them, our data reveal that this reliance seemed to pose some challenges for future leadership transitions. Because most of these programs rely on individual scholarly leaders, the programs...
can experience some loss of momentum and direction when new leaders take over. As one leader we interviewed suggested, one way to solve this difficulty is to create an advisory committee that will continue the work of the leader without much disruption.

Finally, difficult communication across departments, interdisciplinary programs, and other administrative units often requires a “tenacious administrator” to secure faculty and student participation. Despite the fact that all faculty leaders described collegial relationships as integral to the origins and evolution of their initiatives, they also expressed difficulty in communicating across the maze of departments, schools, and interdisciplinary structures that increasingly characterize research universities. As scholars have noted, the collegial style of faculty work frequently clashes with the rational and bureaucratic hierarchies of decision-making across administrative units (Baldridge, et al., 1991; Weick, 1991). Because interdisciplinary work often occurs without departmental anchors, its supporting collegial culture often lacks administrative heft. Although the nature of universities as loosely coupled units provides space for the creation of new and variously organized programs, by the same token, it also presents an obstacle to their communication with other units.

Despite the challenges of creating and maintaining cross-school initiatives, the leaders we interviewed cited a number of benefits that accrue for both participants and the university (Geiger, 1990; Slaughter and Leslie, 1997). Due to wide-ranging intellectual interests, faculty who do not often fit within the traditional boundaries of departments and disciplines value the “intellectual refuge” often provided by these programs. For the university, we have noted some potential benefits beyond drawing external funding for research, such as the enhanced prestige and a “critical mass of idea exchange” that raises the profile of intellectual issues crossing disciplinary boundaries.
Recommendations

The nature of cross-disciplinary programs—fragile because they lack the hiring lines and the traditional security of departments, yet resilient because they are highly adaptable—cautions against making blanket recommendations for guiding their development across a variety of institutional settings. Care should be taken so that new structures created to help solve problems of coordination and conflict between academic departments, schools, and cross-disciplinary initiatives do not inhibit the collegial and loosely coupled management styles necessary to support such initiatives. We suggest some additional lessons for faculty and administrative leaders from these case studies below.

1. Find better ways to communicate across administrative units, departments, schools, and cross-disciplinary initiatives in order to lessen the administrative learning curve for leaders of new programs, reduce potential redundancies, help cross-disciplinary programs handle leadership changes, and aid in the recruitment of faculty with research interests that may span disciplines and schools. For example, supporting informal faculty discussion seminars that draw scholars from various departments and interdisciplinary programs creates opportunities for faculty to learn about each other’s research and identify potential areas for program development. Creating advisory committees that support faculty leaders helps to sustain the momentum of these programs as they experience changes in leadership.

2. Create a mechanism such as a faculty committee or a clearinghouse that disseminates information about different research interests across the university and locates available resources to support those interests. For example, Emory is creating an up-to-date
database of all cross-school programs that faculty members can access on the web to learn of colleagues’ interests.

3. Develop ways for faculty and administrative leaders to work together to help faculty reduce time pressures from wearing “two hats” and balance diverse roles across the boundaries of departments and cross-disciplinary programs. For example, universities could adjust the reward structures related to tenure and promotion when evaluating scholarly work that extends beyond the boundaries of faculty member’s home departments and disciplines.

4. Provide multiple sources of “seed” money and facility support to emerging programs. For example, matching available departmental resources and facilities funding with modest funding from central administrative sources can provide the impetus for faculty drawn together by common scholarly interests to coalesce and seek external funding.

Conclusions and Implications for Future Research

Although cross-school intellectual initiatives at Emory take on a wide variety of missions, activities, and administrative and funding strategies, we found evidence for some important factors that help shape their origins and evolutions. We also discovered challenges arising from tensions between the outward focus of these programs and the benefits they bring to the university, and the need to free up the passion and creativity of scholarly leaders for the cross-disciplinary interaction that helps achieve those benefits. In addition, we found tensions between the departmental and school structures that sometimes constrain these programs and the collegial networks that provide the inspiration and creative results. While these tensions often produce
challenging organizational roadblocks, a remarkable variety of creative solutions for navigating them have emerged.

Despite these challenges, however, our study of a dozen diverse programs confirms a significant level of faculty interest in research that crosses fields. We expect that demand for cross-school programs will rise because faculty members continue to seek out collaboration across disciplines to address pertinent scholarly problems. In addition, universities will find they can significantly shape their institutional profiles by developing and nurturing interdisciplinary initiatives.

Our findings strongly suggest that interdisciplinary initiatives can evolve more successfully when intellectual goals shape administrative structures. We also recommend that colleges and universities provide the ingredients that can spawn and nurture such cross-school initiatives. These ingredients include maintaining loosely structured and flexible systems of governance, enhancing recognition and reward for interdisciplinary work, reducing the burdens of time and frustration involved in engaging in scholarship outside of departmental boundaries, and facilitating communication and coordination across departments, schools, and cross-school initiatives. Such steps can help create the spaces for a critical mass of intellectual exchange necessary to support scholarly innovation.

This study represents a first step in exploring factors that influence the development of a rich diversity of cross-disciplinary initiatives. By bringing to light useful information about some pockets of innovation, this work suggests how similar programs might evolve. To learn more about the characteristics and support of such programs, future research should systematically investigate cross-department and cross-school programs, both at the level of individual universities and across the full range of higher education institutions.
References


Appendix A: Descriptions of Cross-School Programs Studied

- **African American Studies.** Both the Institute for African Studies and the African American Studies Program grew from the earlier Black Studies Program, which began in 1971. Though African American Studies still works closely with the Institute for African Studies, the program split off from that area-studies program in 1992 to focus on the experience of the descendants of Africans in America. The program, currently directed by Mark Sanders, offers a full undergraduate major and student internships with local agencies like the Martin Luther King Center for Nonviolence, the Atlanta Black Arts Festival, and the AIDS Project at Grady Hospital. In addition to their research and teaching, African American Studies faculty also play a special role in counseling undergraduate organizations like the Black Student Alliance and contributing to the on-going dialogue about racial issues on campus. 
http://www.emory.edu/COLLEGE/AAS/aasindex.html

- **Center for Behavioral Neuroscience.** In 1999, a grant from the National Science Foundation helped to establish this initiative that brings researchers from Emory together with colleagues from Morehouse School of Medicine, the Georgia Institute of Technology, and Georgia State University—just to name some of the participants in the Center’s “collaboratories.” Undergraduate and graduate education is key to CBN’s mission, which allows students from the constituent universities to study at other schools participating in the Center. Tom Insel, Dennis Liotta, and Pat Martstellar at Emory join Elliot Albers at Georgia State in directing the Center. The center’s research explores the neuroscience behind social behaviors and a partnership with Emory’s biotechnology incubator is designed to aid in the transfer of some useful technologies generated by that research. http://www.cbn-atl.org

- **Center for Injury Control.** Jointly sponsored by the School of Public Health and the School of Medicine, the Center for Injury Control has existed since as a university-wide program since 1993. Faculty from fields ranging from epidemiology to behavioral science collaborate with agencies like the World Health Organization, CDC’s Center for Injury Prevention and Control, the Georgia Department of Health and Human Services, and the Carter Center to help reduce death and injuries from accidents. The Center also staffs courses on injury control and collaborates with the Violence Studies program on topics of shared concern, like gun violence. http://www.sph.emory.edu/CIC/

- **Center of the Study of Health, Culture, and Society.** Since 1993, Randall Packard, professor of history and of international health, has designed this center to be a meeting ground for social and health scientists, humanists, and health professionals. The Center helps to reimagine the possibilities of graduate education through interdisciplinary fellowships that allow doctoral students in the arts and sciences and in the school of public health to switch places for one year to gain a grounding in a different field. A 1996 award from the Ford Foundation initiated the Center’s partnership with African Studies to create courses, workshops, and seminars on problems of public health importance in Africa. And grants from the Mellon and Rockefeller Foundations in 1997 have funded a series of conferences and workshops on defining the public health and emerging illnesses and public scholarship,
which drew participants from agencies like the CDC, the Carter Center, and the American Cancer Society, as well as from various schools at Emory. http://www.emory.edu/CSHCS/

- **Department of Religion, Interfaculty Seminar.** In the spring of 2000, the department of religion organized a faculty seminar titled “Afterthoughts on Time and the Other.” Seventeen participants attended an open lecture by visiting scholar Johannes Fabian and later joined three seminar discussions led by professor Fabian. Half a dozen departments and interdisciplinary programs were represented, from African Studies to Philosophy and Economics. The participation also of a few advanced graduate students in the seminar enhanced the liveliness of the exchange, according to several participating faculty. The seminar was part of a larger initiative that seeks to make the interdisciplinary study of religion part of an ongoing, university-wide discussion.

- **Disease Ecology.** “Predicting the Emergence of Infectious Disease” was the theme of the first annual lecture series sponsored by the new Center for Disease Ecology in the fall of 2000. Center Director Leslie Real defines disease ecology as the application of ecological and evolutionary principles to understanding the emergence and spread of infectious diseases. While Real foresees the eventual contribution of perspectives from the humanities and social sciences to this emerging field of disease ecology, initial partners include Emory College, the Health Science Center, the School of Public Health, the Graduate School of Arts and Sciences, and the Centers for Disease Control. In addition to sponsoring lectures and conferences, the center plans to organize faculty working groups, in which international and local scholars collaborate intensively for a brief period several times a year.

- **Halle Institute for Global Learning.** In 1997, a major donation from Claus and Marianne Halle funded this university-wide center, which fosters internationalization to benefit Emory, collaboration among local universities, and the city of Atlanta. The Halle Institute sponsors a guest speaker series, a travel abroad program for faculty, and a Distinguished Fellow program. Faculty research seminars bring together scholars from political science, economics, history, anthropology, sociology, business, law, medicine, and public health who present and gain new perspectives on their work. http://www.emory.edu/OIA/Halle/

- **The Law and Religion Program.** Begun in 1982, Law and Religion explores the religious dimensions of the law, the legal dimensions of religions, and the interaction of ideas and methods. Emphasizing ecumenical and comparative approaches, the program offers four joint graduate degrees and ten cross-listed courses. The Lilly Endowment, The Ford Foundation, and The Pew Charitable Trusts, among other agencies, have funded conferences and research initiatives on topics like “Religious Human Rights in the World Today,” “Christianity and Democracy,” and “Law, Religion, and Family.” In the fall of 2000, the program will begin collaborating with a variety of other departments and schools on campus as part of a new Center for the Interdisciplinary Study of Religion, funded by a major grant from The Pew Charitable Trusts. This new center, also directed by John Witte, will be one of five or six such centers established at top universities to foster interdisciplinary religious scholarship by faculty and students. http://serv1.law.emory.edu/religion/about/about_start.htm
• **Psychoanalytic Studies.** Since 1996, the Psychoanalytic Studies program has brought together faculty from the Institute of Liberal Arts (ILA), the Psychoanalytic Institute in the Medical School, the Law School, and many other disciplines to discuss the history, theory, and application of psychoanalytic thought. The program, housed in the ILA, offers a minor concentration in psychoanalytic studies for graduate students and recently hosted an international conference on “Women and Power,” with the Institute for Psychoanalytic Studies here at Emory and the International Psychoanalytic Association.  
http://www.emory.edu/COLLEGE/ILA/ILA_divisions/Psychoanalytic_Studies.html

• **Russian and East European Studies.** This program, administered through the Department of Russian and East Asian Languages and Cultures, sponsors curricular and extra-curricular programming, as well as a certificate for graduate students in law, business, and public health. REES evolved out of the Soviet and East European Studies Program, which was begun in 1983 through federal grants. Currently, affiliated faculty in Political Science, History, Law, and the Russian Language Program work to enhance undergraduate courses and sponsor lectures, films, symposia, and workshops for local teachers.  
http://www.emory.edu/SEES/index.htm

• **Science and Religion Faculty Group.** In 1999, the Religion Department’s Gary Laderman teamed up with physicist P.V. Rao to lead a weekly reading group to help them think through a course they planned to co-teach. Support from the Science and Society Program underwrote the cost of lunch and a web presence for the group of professors from the medical school and various humanistic disciplines. The discussion extended to graduate students in the spring of 2000 through the interdisciplinary Burke Nicholson Symposium on Suffering and Healing, supported by the graduate school. The group continues to meet in 2000-2001 but has evolved into a more focused forum that meets less frequently.

• **Violence Studies.** Having been in existence since only 1996, Violence Studies has already received attention in the *Chronicle of Higher Education, ABC News*, and the *Washington Post,* as well as local papers, for its interdisciplinary approach to understanding the causes and representations of violence, as well as its prevention. The program, now directed by Beverly Schaffer, facilitates a sharing of research perspectives among its seventy faculty members from across the university, offers an undergraduate minor, co-sponsors conferences, and organizes student internships with community organizations like the Dekalb County Juvenile Court and the Georgia Council on Child Abuse.  
http://www.emory.edu/COLLEGE/VS/index.htm
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