Historically, Virginia Tech’s graduate education programs in the National Capital Region (NCR) have not formed a coherent whole. Instead, the region’s programs grew as distinct and uniquely defined offerings, each evolving to serve its audience and conform to the needs of its Blacksburg-based administration. More recently, as the scope of Tech’s activities in the NCR has grown, there has been both an opportunity and a collective interest to view our programs as a whole and to effect changes that enhance graduate education in the region.

In support of the efforts of the Dean of the Graduate School to develop a new vision for what graduate education in the NCR could be, the NCR Faculty Association initiated several activities to describe and brainstorm about the region’s programs including general meetings of the NCR faculty, follow-up meetings in small groups, and on-line discussions. As a baseline for these efforts, the Executive Committee of the NCR Faculty Association interviewed individually the program directors in the NCR\(^1\) and prepared a report summarizing the diverse approaches to graduate education in the region, emphasizing strengths, weaknesses, and opportunities (see appendix).

The most apparent conclusion of that assessment was that our programs in the region are remarkably diverse. In all the following, NCR programs exist at both extremes:

- Reliance on adjunct faculty (no adjuncts to extensive use)
- Local autonomy in the administration of the program (none to complete)
- Class/cohort structure throughout the degree (strict cohort to custom plan of study)
- Revenue sharing to NCR programs (none to generous)
- Extent of local competition (unique to having many peer programs)
- Program pricing relative to the competition (from much lower to much higher)
- Use of online content (from none to 100% online)
- Tailoring of the degree/program to the NCR (from unique NCR experience to duplication of the program offered in Blacksburg)

Consequently, it is difficult to describe any program in the NCR as ‘typical,’ and there are obvious concerns about defining best practices that can be relevant across programs. Nevertheless, based on these varied efforts, we present here an idealized version of graduate education in the NCR that draws from and builds on some of the successful ideas demonstrated by our current programs.

**Vision – A Unique Graduate Community at our Nation’s Capital**

Virginia Tech is poised to significantly improve the culture of graduate education in the National Capital Region because we have achieved a critical mass: an enlarged footprint, a unified brand, increased local visibility, and commitment at the highest levels within the

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\(^1\) Interviews were conducted from November 2005 through May 2007 by members of the Faculty Association Executive Committee: Barbara Hoopes, Gabriella Belli, and Nick Stone.
University, evidenced by a local administration headed by a university vice-president. Virginia Tech has established and grown programs, resources, and networks in the region that today convey an enduring and comprehensive presence.

Tech’s footprint in the NCR now comprises a cohesive core within the Beltway: the newly announced Ballston Research Facility, a highly visible research and administrative building in the heart of Arlington County\(^2\), the Graduate Education Center in Falls Church, and a several buildings in Alexandria supporting programs in Architecture and the School of Public and International Affairs with the beginnings of subsidized graduate student and faculty housing for temporarily located individuals. Extending beyond the Beltway, Tech has active graduate research programs in Manassas, Middleburg and Leesburg, complemented by Cooperative Extension’s county offices.

These locations are linked both virtually and geographically. Through the Internet, Virginia Tech faculty and students use and have begun to rely on free, IP-based video-teleconferencing\(^3\). Getting together geographically, though, is more difficult. Driving is possible but problematic. In most locations, parking is now available at Blacksburg-comparable rates. The Metro and bus are useful, particularly traveling between Falls Church and Ballston, and the University is contemplating more direct and cost-effective options including a *Tech shuttle* between the region’s major facilities. In addition, regular shuttle service between Blacksburg and the NCR, coupled with “flex-car” operations at both ends of the shuttle\(^4\) will help make it possible for Virginia Tech personnel to easily move back and forth between the main campus and the NCR. We envision, in other words, a modern urban campus in which the collective resources of the region are accessible to the Virginia Tech community based in the region and also to those based in Blacksburg.

Besides the score of universities with their main campuses in the region\(^5\), many others have branch operations here, but Virginia Tech is alone among them in offering a wide range of graduate, continuing education, and professional development programs that rely primarily on locally based faculty, instruction and research facilities. Consequently, Virginia Tech’s “graduate-program only” presence has elements of both a large and small university, providing the benefits of a personal, local base along with connectivity to a community that includes myriad partners in the nation’s capital and even more opportunities through links with programs in Blacksburg.

Because of our brand and our breadth, we compete mostly with the locally based universities, both for traditional graduate students and adult learners, and less with the satellite programs of other universities like UC Irvine or MIT that run undergraduate student internship programs and act as liaisons to the federal government.

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\(^2\) Scheduled for completion in the fall of 2010.
\(^3\) While many of the Virginia Tech buildings contain one or more video-teleconferencing (VTC) systems that operate over the Internet using the standard “internet protocol” (IP), there is currently no shuttle-bus service operated between Virginia Tech locations.
\(^4\) None of the shuttles described, nor the flex-car operations exist, though discussions with a flex-car service have been underway for some time, and limited shuttle bus trials have been implemented.
\(^5\) The Consortium of Universities of the Washington Metropolitan Area includes 15 universities, all with their primary location in the NCR.
**Traditional, Executive, and Adult-Focused Advanced Degrees**

Most of Tech’s programs in the region were created to reach adult learners and working professionals, and one program (Adult Learning and Human Resource Development) offers master’s and doctorate degrees specializing in the theory and practice of working with adult learners and their organizations, and communities, local to global. The first program in northern Virginia was in “Urban Affairs and Planning,” which began in the 1960s, followed by programs in education (adult learning), economics, business (MBA), and engineering in the 1970s. Today, there are close to 50 graduate and certificate programs offered in the NCR, including some of the original programs as well as new programs tailored to the region’s executives (executive MBA, information assurance, and security and technology policy). Although we have seen and expect continued growth in the number of full-time graduate students enrolled in research-based masters-level and doctoral degrees, much of the growth will remain rooted in strategies and lessons learned from building programs for non-traditional students in this highly competitive environment.

To appeal to professionals with busy schedules and little connection to an academic semester format, Tech’s programs have evolved to be less influenced by the traditional undergraduate, residential campus model. NCR graduate programs rely on flexible scheduling and innovative interactions with regional organizations and resources. At the same time, the programs have devised ways to encourage regular interchange for both faculty and students with the main campus in Blacksburg.

**NCR-Friendly or NCR-Centric Scheduling and Offerings**

A number of NCR programs offer courses year-round, essentially utilizing a three-semester model, rather than two full semesters augmented by abbreviated summer semesters. The Executive MBA program functions this way, as do programs in Urban Affairs and Planning (UAP), Computer Science (CS), and Science and Technology in Society (STS). However, the approaches differ, for example, in their dependence on adjunct professors for summer instruction. Finding a way to shift faculty effort to accommodate an evenly balanced course schedule over the entire year, including hiring adjunct faculty to fill in gaps, is critical to the success of programs here.

The EMBA and CS programs offer a stark contrast. The EMBA relies on regular Virginia Tech faculty year-round. The program offers the faculty members participating in it special compensation beyond their regular salaries through a provision for “overloading” faculty time. That financial reward is available because the program charges a market-priced tuition that is considerably higher than regular tuition. In contrast, Computer Science, with a tradition of offering summer courses taught by adjunct faculty, had to abandon their summer program for a time because of lack of funds. Without receiving some of the revenue from tuition and fees paid by students during the summer, the program

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6 Of these, the EMBA is the only current program. The executive program in information assurance has been approved, and the one in security is proposed as part of the new Center for Technology, Security and Policy.
had no way to pay its adjuncts, despite both the demand for and the feasibility of providing the courses.

The lesson is that the demand for year-round offerings here can provide the financial mechanism to pay for the faculty’s time, whether by allowing regular faculty to be compensated for extra work, paying faculty for summer effort, or redistributing faculty workloads.

*Regular Interchange with the Main Campus*

Virginia Tech’s main campus and the NCR are inherently complementary. Despite comprising the largest concentration of Virginia Tech students, staff and faculty in a geographic region outside of Blacksburg, the NCR does not rival Blacksburg in its richness and depth of faculty expertise. At the same time, while comfortably located in a part of the Commonwealth that affords in many ways an idyllic academic refuge, Blacksburg will never be able to compete with the NCR in its access to an urban population, the international community, federal agencies, and a diverse and technologically adept workforce. Certainly, because of the differences between the regions, different types of programs will be most appropriate and successful in the two locations. However, the differences also suggest that in many cases, there is a potential mutual advantage available to the University through effectively integrating programs in the two regions.

NCR programs actively encourage interaction in different ways. In the Public Administration and Policy program (CPAP), for example, Blacksburg-based faculty regularly travel to the NCR to teach. Likewise, the EMBA program’s instructors are mostly Blacksburg-based faculty. Other programs like Computer Science and Engineering use IT tools to allow courses to originate in either Blacksburg or the NCR. The Masters of Information Technology degree is taught entirely online and relies on both NCR- and Blacksburg-based faculty, although face-to-face interaction and program support occurs in the NCR.

*Integrating Faculty & Students in the Region*

As the world becomes flatter, cultures interact, and problems become global, we are challenged to educate students to be more interdisciplinary, more socially aware, and to involve themselves in their communities. Experience and educational research have shown that engaging students in team-based, hands-on, real-world problem solving (*constructionist* learning methods) is more effective than traditional classroom instruction in getting students to understand and deal with complexity, particularly in trans-disciplinary and applied fields. The NCR is an ideal location in which to employ such approaches, and many of our programs take advantage of the opportunity.

The Architecture program routinely involves their students in local design competitions, from the well publicized national “solar decathlon” to studies for Alexandria parks. Civil and Environmental Engineering does research on metropolitan transportation by

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7 Another study being completed this year by the Faculty Association addresses the issues involved in implementing a three-equal-semester model in the NCR as a whole.
collaborating with WMATA, the agency that runs the DC Metro. Programs in Marriage and Family Therapy work extensively with military families; ALHRD offers professional development opportunities to federal employees, peer institutions, and community organizations; Education works with the local county school systems – some of the best in the country; and programs in Science and Technology Studies, Natural Resources, the Center for Public Administration and Policy, Business, and others rely extensively on the region’s business and government professionals to serve as adjunct faculty, expert panels, and collaborators, in some cases (e.g., ALHRD) engaging professionals on dissertation committees.

The region is both a real-world laboratory in which students can directly apply and test their knowledge as part of their studies, and a source for unique perspectives, adjunct faculty, professors in practice, and student engagement opportunities.

**Community Identity in the NCR**

One of the most vexing problems for our graduate programs in the NCR is developing the critical mass upon which to base a sense of community. Most of our graduate students are adult, part-time learners, and our facilities are geographically dispersed. There is no time at which all our students congregate, nor is there a facility at which this could happen. Our students, therefore, may have a strong sense of belonging to their program and share camaraderie with a small set of classmates and faculty, but they tend not to share a common sense of being Virginia Tech community members.

Many of our graduate programs have worked hard to build lasting ties with their students and to foster a group identity within their programs. The Marriage and Family Therapy program, for example, has made this a priority over the years and the alumni are extremely positive about and loyal to the program, acting as an effective resource for MFT. The ALHRD program actively encourages student interaction outside of class, providing opportunities for mentoring by alumni and encouraging students to form mutual support groups through monthly ‘drop-in’ sessions and virtual meeting places in Blackboard™ for those writing their dissertations.

The cohort model used in the EMBA program is another excellent example. The class bonds through having all their classes shared, eating together during their sessions, and traveling together for up to a week at a time. However, the EMBA students do not tend to interact with students in other programs.

Similarly, the Architecture program in Alexandria has developed a strong communal identity within an insular program, in this case composed mostly of full-time students. Their program is housed in a single building (a real-world lab of its own for the program), and they are unique in the region in having established a site for student and faculty housing to accommodate their international students and visiting faculty. Interaction between students in the Architecture program and other students, however, is minimal.

Developing the sense of community exhibited by these programs is the ideal. The question is whether it requires a physical facility where faculty and student from all programs
routinely congregate or identify with and call “home.” As Virginia Tech expands in the region, for example, building an advanced research facility that will house approximately 150 faculty and their graduate students in Ballston, we take steps toward that ideal in one sense, but we also move away from the hope of a campus-like feeling that might have evolved if the new facility had been built adjacent to the current Northern Virginia Center or the programs in Alexandria.

It seems most practical to focus efforts not on a single physical location for Virginia Tech in the NCR, but instead on a hub model, emphasizing the nexus of the several programs linked through better communication, transportation, and through virtual communities. The strong Virginia Tech alumni network is an example of a virtual community, with tens of thousands of members in the NCR. Alumni networks rely on active participation by active volunteers in the community, but they are also nurtured and fostered centrally. Such a model could be mirrored to try to achieve a similar sense of community for our graduate students while they are still enrolled. We believe that today’s social networking tools along with more traditional approaches, when combined with strong individual programmatic efforts can achieve the kind of community for our graduates that we seek.

Conclusions

The vision of a cohesive graduate education program in the NCR, in which programs become more interactive and students increasingly identify with Virginia Tech and one another as sharing a transformative experience, will be achieved only through continued regional growth and concerted effort from the administration and from cross-cutting organizations like the Faculty Association and Graduate Student Assembly. Learning from the experiences of others, sharing successes and challenges, and supporting one another through initiatives like this visioning exercise can help catalyze positive change. We have begun to see this with the Graduate School’s willingness to pilot a three-equal-semester system for the NCR. We hope this visioning exercise leads to further and continued progressive dialog, experimentation and change.

Having completed this survey and analysis, we are convinced both that our programs in the NCR are highly individualized and that they share common challenges and opportunities. Individual graduate programs in the NCR will remain diverse, but in comparison to graduate education at the main campus in Blacksburg, graduate programs in the NCR will tend to be:

- Serving a more diverse, older, and professionally experienced student body
- More reliant on adjunct faculty, local professionals, and ‘professors of practice’
- More dependent on direct revenue sharing to support program innovation
- Focused more on real-world problems with direct, program-driven involvement in community and local government
- Highly dependent on strong, supportive virtual networks tailored to the students in the region
- Aggressively seeking interaction of Blacksburg-based faculty and students, particularly bringing faculty and students to the NCR
- More flexible in scheduling
The value to Virginia Tech of programs with these characteristics is readily self evident. A vibrant and cohesive graduate community in the NCR benefits not only the region, but the university as a whole, complementing the strengths of Blacksburg-based programs and enhancing the visibility, relevance and reputation of Virginia Tech in the Commonwealth, nationally and internationally.