

Chapter 6

ACADEMIC RISK AND RESILIENCE:
IMPLICATIONS FOR ADVISING AT SMALL COLLEGES AND UNIVERSITIES

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Introduction

Disease, divorce, dyslexia, or depression, at a rate unprecedented even 25 years ago, have advisors addressing the intersection of personal challenge and academic performance in their students. In small colleges and universities across the United States, in institutions that emphasize faculty-student contact, advisors have increasingly questioned this seeming increase in at-risk students. In conversations with advisors, deans, and advising directors from across the United States, I have found that advisors are not questioning the academic qualifications of their students. In fact, they have been puzzled by the strong academic histories of at-risk students and the diversity of issues they are currently presenting both inside and outside the classroom. These conversations have also disclosed a pervasive distinction in the minds of these advisors. On one hand, advisors meet students who excel despite lives of great desperation, while on the other hand, they struggle with demands for exceptions from men and women who seem fragile in the face of even the mildest challenges.

In this chapter, I review the constructs of “risk” and the newer construct of “resilience” as they identify an increasing proportion of students. I will address the possibility that small institutions may be both more aware of this national phenomenon, and by nature of institutional type, be disproportionately attracting students with life-challenging issues. I summarize the results of an ongoing study of risk and resilience at one small institution. Finally, I address why advisors at smaller institutions may be ideally situated to intervene with at-risk students in a manner likely to enhance their development into resilient young scholars.

Risk as a Construct in Higher Education

Defining Risk for Higher Education

Institutions of higher education are in the business of producing graduates, educated in degree programs, prepared to take their places among an informed citizenry and qualified to contribute meaningfully to society. The cost of this education is not small. Each student represents an investment by individuals, families, donors, and state and the federal governments. Any factor that might interfere with a student’s ability to gain full measure from his or her education, one that might interfere with competent functioning or that might prevent him or her from becoming a successful graduate, could be considered a risk factor. Smaller institutions, both more sensitive to the potential economic impact of such risk and with mission statements that speak to the school’s responsiveness to each individual, must be doubly attentive to these factors.

The concept of risk comes from the field of epidemiology, in which scholars sought to identify “factors that accentuate or inhibit disease and deficiency states, and the processes that underlie them” (Garmezy, 1994, p. 13). Behavioral scientists who sought to better understand mental health and mental illness have aggressively applied this model to the study of schizophrenia (Garmezy, 1971), developmental disorders (Rutter, 1982), and sociocultural risk (Werner, 1989). They hypothesized that an individual at risk is more vulnerable to stressors and will show greater evidence of that stress than individuals not “weakened” by those underlying states. Stressors explored included longstanding and broad-based “states” of an individual, familial, or social nature; acute life events, such as social role and situational stressors; and critical, singular life events, such as the transition to puberty or the transition from high school to college.

More recently, educators and mental health investigators have reformulated the discussion to look at the intersection of normal, developmental processes and exceptional forms of risk (Cicchetti, 1990). Researchers on risk have explored the following in both the psychology and education literature:

1. individual risk, which includes neurological, cognitive, health, or psychological factors as contributors to academic failure (e.g., traumatic brain injury, learning disabilities, limited cognitive complexity, chronic illness, or psychological problems);
2. familial risk, which includes family discord, disturbed family functioning, family crises, familial values concerning education;
3. community risk, which includes conflicting ethnic or cultural values, stressful peer and social interactions, neighborhood disorganization or deprivation, as well as an array of risk factors resulting from the student's prior experiences with an educational system (e.g., academic failure, poor preparation, low expectations).

Individual, familial, and community risk do not operate independently. In fact, a high level of intersection may exist among risk factors. For example, students from inner-city schools may be affected by social and economic factors operating at the community level that contribute to neighborhood disorganization, familial risk, social pressure away from school and subsequently increase the likelihood of health or cognitive risks at the individual level.

Academic failure has been considered *prima facie* evidence of individual risk among school- and college-aged populations. Why has this single factor been considered important? First, scholars saw academic performance as an objective measure of functioning; teachers gave grades based upon actual performance, blind to any status characteristics of their students. While the objectivity of classroom grades might be questioned, researchers also saw classroom performance as relatively stable yet sensitive to significant sources of risk. For example, good performance required that a student have specific levels of intelligence, concentration, motivation, and freedom from levels of emotional arousal that could be strong enough to distract the student. Further, academic success, whether in high school or college, predicted long-term positive outcomes in many studies (Werner & Smith, 1982, 1992). A college student, unable to function effectively in the classroom, among peers, or in the institutional community shows evidence of risk with far-reaching consequences for retention. The retention literature

has documented the impact of this failure to function (Clark, 1989; Dunphy, Miller, Nelson, & Woodruff, 1987; Lent, Brown, & Larkin, 1986; McCroskey & Payne, 1986; Tinto, 1990). As a result of this singular focus in higher-education risk research, investigators have put forth effort to identify factors that contribute to academic failure or failure to complete a degree.

Commonly identified higher-education risk factors include broad categories, such as race, ethnicity or social class, life crises (e.g., parental divorce or death of a family member), and one-time life events (e.g., the transition to college). According to Compas, Wagner, Slavin, and Vannatta (1986) this latter stressor, the transition to college, was reported to disrupt the functioning of individuals already vulnerable and dealing with a particular risk factor (state or crisis). In fact, Compas et al. (1986) saw this normal transition as an ideal window through which to observe the intersection of psychiatric symptoms and developmental processes. They noted that the "transitions involve periods of change, loss, or disruption of a prior structure or order in an individual's life" (Compas et al., 1986, pp. 242-43). Stresses associated with the transition to college (such as the loss of friends and family supports) are construed as challenges to existing coping mechanisms and to an individual's ability to establish an effective social identity (Coelho, 1979).

The Changing Risk Profile in Higher Education

Before World War II, America's college campuses seemed remarkably homogenous. Few students reflected variations in race, social class, ethnicity, or gender. High-risk individuals were either unable to earn a high school record sufficient to warrant college admission or were quickly (and permanently) placed on leave if unable to function in college. With the implementation of the GI Bill, all colleges and universities began enrolling students diverse in social class, ethnicity, gender, and race, but only after the Higher Education Act of 1965 was enacted did institutions introduce programs to support diverse students. For the most part, these compensatory programs were expected to "cancel out" sources of risk related to unique populations (Garmezy, 1971). However, federal funding flowed first to large institutions.

In the 1980s, 504 legislation opened the doors to students displaying a wide degree of individual physiological and cognitive risk. While students with physical and sensory disabilities have remained a relatively small population on small campuses, they have increasingly enrolled in 4-year, rather than 2-

year, institutions (Henderson, 1995). The profiles of students with disabilities have also changed: Students with learning disabilities now represent one in three students with reported disabilities (Henderson, 1995).

The increase in students with psychological disabilities has been less well-tracked than those with learning or physical disabilities. For example, while the California Institutional Research Program Survey of Entering Freshmen requests specific information concerning learning and physical disabilities, psychiatric disabilities can only be inferred from assessments of "general mental health," "use of anti-depressants," or "likelihood of seeking counseling." In the last 20 years, secondary institutions improved the treatment of adolescents with emotional difficulties, resulting in improved rates of high school completion and entry into competitive colleges. Therapists commonly considered a residential college to be preferable to an adolescent's home situation, and they believed that the unique stressors and opportunities of college could promote greater health in a psychologically vulnerable individual (Garmezy, 1985).

The changing demographics of the 1980s and early 1990s also prompted a reexamination of small college retention policies. Through the 1960s and 1970s, if a student proved vulnerable to the stresses of an education at smaller institutions, she or he either flunked out, dropped out, or was sent home on a leave of absence while the college quickly filled her or his place with another student. However, as institutions compared the costs of recruiting new students to that of retaining those originally recruited, and as they assessed the shrinking pool of candidates, programs to enhance retention became central.

Impact of Student Risk on Small Colleges and Universities

What is the impact of the changing risk profile for small colleges and universities? Smaller institutions may, in fact, be carrying a disproportionate share of the students at risk. Even highly selective colleges and universities have reported a significant increase in the numbers of students presenting with a range of cognitive, neurological, social, familial, or psychological vulnerabilities. Competitive students (and their parents) who have benefited from support programs and resources while in high school are most likely to seek out institutions with strong support resources and an ethos of attention to the individual student. While large institutions

may develop model programs, they do so in an environment where individual attention is less possible.

A review of several of the most recent reports on *The American Freshman*, published by the Higher Education Research Institute, is instructive (Sax, Astin, Korn, & Mahoney, 1999). Astin suggested that the best comparison group to use when exploring small institutions is the private, 4-year college subset "since practically all of these institutions are of relatively small size" (A. Astin, personal communication, March 30, 2000). When the data from these small, 4-year schools are compared with those from universities (as a proxy for large institutions), one finds several intriguing differences (Table 1). Students at small institutions overwhelmingly selected the school because of its size, and to a lesser extent, because it offered special educational programs. Looking at the 1999 data, one can see that large institutions were somewhat more likely to attract students who rated themselves high in emotional and physical health and high in intellectual

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and social self-confidence. While the national increase in the stress level of all entering students was of major concern to all educators, the rise has been more dramatic in small institutions (nearly 5 percentage points since 1995) than in larger schools (which only reported a 3.3% increase). While the differences between postsecondary populations are small, when compared with students attending universities, students in small colleges were more likely to report experiencing depression,

taking anti-depressants, and expressing a need to seek counseling during their first year at college. Finally, while nearly 1 in 10 students from a small college reported some kind of disability in 1998, that number was 1 in 15 at universities, with learning disabled students accounting for most of the difference (Sax, Astin, Korn, & Mahoney, 1998). More so than larger universities, small institutions have attracted students because of their size and programs, and therefore the smaller schools have built first-year cohorts who have consistently reported themselves to be somewhat more vulnerable psychologically, physically, and cognitively.

Often, the institution may be completely unaware of the student's vulnerability, admitting the student wholly based on outstanding academic records and strong recommendations. While disclosure is becoming increasingly common, particularly in this era of tell-all television, disclosure is most likely when a student has a blemish on his or her high school record and needs to offer an explanation for the documented

Table 1 Chi-square differences between proportions of small (4-year college) and large (university) institution students who endorsed selected responses to the Cooperative Institutional Research Program survey of first-year students

| Question | Small Institutions (<i>n</i> = 102,489) % | Large Institutions (<i>n</i> = 104,330) % |
|--|--|--|
| Reasons noted as very important in influencing student's decision to attend this college: | | |
| “I wanted to go to a school about the size of this college.” | 48.4 | 28.0* |
| “This college offers special educational programs.” | 23.6 | 20.0* |
| Student rated self above average or in highest 10% compared with the average person of his/her age in: | | |
| Emotional health | 55.7 | 59.2* |
| Physical health | 58.1 | 60.0* |
| Self-confidence (intellectual) | 61.3 | 65.6* |
| Self-confidence (social) | 51.8 | 54.0* |
| Activities noted in past year: | | |
| Felt frequently overwhelmed | 31.5 | 30.6 |
| Felt frequently depressed | 8.8 | 7.7* |
| Took a prescribed anti-depressant | 5.5 | 4.4* |
| Chances are very good that he/she will: | | |
| Seek personal counseling | 5.3 | 4.6* |

Note. * $p < 0.001$. Data are from Sax et al. (1999).

problem. When student explanations are lacking, colleges admit “risk blind” and must bear the consequences of these decisions.

Transition to College and Student Risk

Even among the most risk-free students, not everyone has proven capable of successfully navigating the stress associated with the transition to college. A proportion of all students respond poorly to the multiple stressors of this transition. The transition to college serves as a significant stressor to at-risk populations either because it is the final, critical component to an accumulation of stressors already present in that student's life (the straw that breaks the camel's back) or because vulnerable populations may be uniquely sensitive to any singular, stressful life event (Gore & Eckenrode, 1994).

Moving to college results in a range of stressors to all undergraduates at the individual, family, and community levels. Students leave behind their neighborhoods and cultures, complete with the linguistic, ethnic, and community identities that they associate with their communities. In small residential colleges and universities, students join a culture with unknown rules, unclarified values, and differing ethnic and cultural mixes than those found in their home communities. They leave one academic learning environment, in which they have found some

degree of success, and join a new learning community where their cognitive complexity, academic skills, and knowledge base may prove dramatically different from that necessary in the new setting (Baxter Magolda, 1992). In addition, first-time college students leave behind a network of friends and social supports that have maintained them in the community.

In a manner similar to community-level support, new students also lose their familial and peer support networks. Adolescents leave behind their homes, their bedrooms, and their preferred rhythms of food intake and sleep. How well the adolescent navigates the transition to young adulthood is a product both of the adolescent's level of functioning and his or her family's state. Students lose their given roles within the family (e.g., Mom's best friend, peacemaker, scapegoat), and this change may be resisted by the family. They also lose their peer support network, including friendship and romantic significant others. An entirely new support system must often be constructed from scratch. Finally, students (many who have few siblings and unshared bedrooms at home) are thrown into an intimate living environment with one or more peers, in close living arrangements with 10 to 20 others, and are expected to make this work from the first encounter (Pittman, 1987). National surveys on alcohol and sub-

stance abuse report that first-year students experience unprecedented stress to drink and use drugs as the primary means to find peer acceptance and build personal supports (Presley, Leichter, & Meilman, 1999).

During the transition to college, students encounter a range of physical and psychological stressors. At the most basic, individual level, interruption of preferred biorhythms and sleep-wake cycles can prove very stressful to students. Added to this, the change in diet can significantly influence physical well-being. Subjected to a new gene pool of viruses and bacteria, biologically stressed students are susceptible to a range of illnesses. In addition, students living in residential settings are psychologically impacted by noise and changes in the basic rules for living, which prove stressful (Sax, 1997). In the classroom, concrete-reasoning students soon find that the academic challenges of hypothetical-deductive reasoning both stimulating and bewildering. Students whose high school workloads were modest, at best, are stressed by the change in rhythms and volume of work; they are accustomed to weekly quizzes not large papers and major exams (Baxter Magolda, 1992). These new cognitive and intellectual challenges may make evident learning disabilities that had been latent in secondary school. Finally, the loss of one's known identity and ability to predict areas of success or failure may also prove stressful.

A study of these student experiences makes clear that the transition to college may prove stressful both as an accumulation of stress-producing events and from the loss of resources (particularly personal support systems) that have helped these youths cope as secondary students. These consequences will prove most significant for students who move from their homes into residential colleges or university settings. Students living at home suffer fewer losses in identity and social support. However, if most of their peers become residential students, this contrast in peer experience may prove stressful. The process of establishing a peer group, a new college-student identity, and a peer support network while maintaining some degree of familial and community supports can prove a significant challenge.

However, while losses in community and family support and changes in identity may create stress, the anxiety is part of the normal experiences expected by most students. In fact, the changes may prove positive. For a student eager to embrace adult respon-

sibilities, for one desirous of the opportunity to break old ties and create a new and more successful self, or a student coming from a problematic home situation, the dramatic break entailed in the transition to college may come as a welcomed change. Stress can challenge students to develop new skills and competencies (Garmezy, 1971).

The Construct of Resilience

How should institutions best serve, support, and retain outstanding (if vulnerable) student populations? Higher education literature is filled with studies of various special populations. Similar to their counterparts in the field of mental health who looked at characteristics that differed among those with and without diagnosed mental illness to find treatments, early researchers investigating interventions for at-risk postsecondary populations compared at-risk students with students who showed no risk in the hope that the differences would highlight the

services or programs that might best help those who are vulnerable. However, as was the case for researchers in mental health and developmental psychopathology, education researchers have come to understand that these comparisons are not useful. What does the experience of strong, healthy, and "never damaged" students have to say to the lives of students from damaged homes or problem schools, or to those who function with unusual reasoning? A more meaningful comparison population can be found.

Over the last 15 years, scholars in mental health fields have increasingly focused on a group of individuals labeled "resilient." What is a resilient individual? In higher education, resilient individuals would be students who are academically successful, in the face of stress, despite the presence of pervasive factors that would put them at risk. Advisors have all known such students, have marveled at their strengths, and have wondered why others seem so fragile in the face of challenges that are far more modest. Exploring the differences between these individuals and their less resilient peers may help us better understand the factors that make a difference when working with students at risk.

Defining Resilience and Protective Factors

While both historical and literary records are replete with examples of individuals surviving despite improbable circumstances, the systematic study of the resilience phenomenon is relatively new (Garmezy, 1994). Masten, Best, and Garmezy (1990) offer three

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currently accepted definitions of a resilient person:

1. an individual who has overcome the odds.
2. an individual who has maintained healthy functioning in the face of ongoing chronic or acute stress.
3. an individual who has recovered from a specific trauma.

The common element implicit in all three definitions is the presence of some “protective factors” (whether internal to the student or external in her or his environment) that help the person to succeed. Protective factors work by reducing the impact of the risk; that is, they reduce the effects of a negative chain reaction resulting from exposure to a stressor. For example, as a result of positive experiences, a type of protective factor, the student’s self-esteem and self-efficacy are reinforced. Other protective factors offer access to resources or skills for important life transitions (Cummings, Davies, & Campbell, 2000). Across many studies in which a range of mental health issues are explored, scholars have identified two key categories of protective factors:

1. personal characteristics, including health, temperament, self-esteem, and self-efficacy. The latter is a sustained sense of worth combined with belief in one’s ability to handle challenges (Rutter, 1990).
2. environmental resources, including income, community ties, or supportive relationships. Of these resources, the “compensatory other” during the time of initial stress is the most significant (Gore & Eckenrode, 1994).

Just as risk factors are not independent, these protective factors may also be found in combination (Thoits, 1991). For example, an advisor who encourages academic exploration and appropriate academic challenges, as well as offers referrals for skills building that are designed to meet those challenges, helps the student build a history of academic successes. The student’s sense of self-worth and sense of mastery in this new environment is thus enhanced. A body of research shows that the major distinguishing characteristic of resilient outcomes is that the resilient individual under stress did something as opposed to nothing (Gore & Eckenrode, 1994). Faculty advisors are ideally placed to prompt action.

Implications for Academic Advising in Small Institutions

This discussion of implications for higher education, particularly in small institutions, is based on two premises. The first premise is that retaining stu-

dents will remain more attractive than replacing vulnerable students with less-vulnerable transfers. Given the ethos in small institutions that individual student outcomes matter, one can assume that the commitment to retention will not fade, even with the present growth in traditional-aged populations. The second is based on the premise that institutions will (knowingly or unknowingly) continue to admit increasingly diverse populations. If the institutional goal is to enhance the probability of positive outcomes, institutional interventions should be based on student resilience research in higher education.

While little can be done to change biological or societal factors that affect students, such as temperament or family income, advisors in small colleges and universities may be positioned better than others to influence the availability of supportive relationships and encourage the student’s self-esteem and personal efficacy. Academic advisors play a pivotal role in promoting resilience. The advisor-student relationship serves as the single most important adult interaction for students newly arrived on campuses. With the high levels of student-faculty contact in the classroom, teaching faculty at small universities may be quickly subsumed into these supportive positions. Peer mentors (whether peer advisors or residential staff) can also serve a pivotal role in the construction of a new support network for incoming students.

A Longitudinal Study of Resilience in Higher Education

The Transition to College Study, a longitudinal research project, is one of the first explorations of resilience in college students at risk. Begun at Wheaton College in Massachusetts, the Transition project has expanded to four other private and public institutions. Through the Transition to College Study, we have explored the impact of individual versus cumulative risk, investigated the long-term impact of an early intervention program, documented the effects of social networks, and have begun a new exploration that specifically addresses gender differences in depression and the emergence of self-efficacy. The following is a summary of our findings to date.

Characteristics of Students At Risk

Wheaton College is a private, selective, 4-year, liberal arts, residential institution that attracts a traditional-aged population. With approximately 1,500 students and a 13:1 student-faculty ratio, the institution promotes attention to individual students. For a number of years, Admissions Office personnel

used admissions information in collaboration with staff at the Advising Center and the Dean of Students' Office to identify at-risk students. (See Table 2.) Wheaton students selected for admission with academic ratings below the mean are considered academically at risk and are accepted based on their potential to succeed. Admissions staff also identify students at risk for health concerns or disabilities, learning disabilities or attention-deficit problems, and personal concerns (e.g., recent stressors such as a parent's death or disclosed emotional problems).

In addition to the risk factors identified by on-campus offices, we also reviewed other factors that might characterize students at risk. To understand the impact of the transition from nonwhite to a predominantly white, English-speaking environment, we tracked multicultural students and students for whom English was a second language (ESL). While a significant sample of the Transitions study participants were first-generation college students, we found that first-generation status did not predict vulnerable outcomes. In addition, the first-generation factor did not combine with any of the other risk factors to produce a particularly negative pattern of outcomes.

In 1993, in the first stage of this research, we sought to learn if individual, social, and community characteristics contributed to greater student vulnerability. In the first study, academic vulnerability was defined by a first semester grade-point average (GPA) of less than 1.67 on a 4.00 scale (the criterion for academic probation at that time). Like others who have studied risk in college students, we initially explored each factor in isolation. We reported that learning disabilities and multicultural status posed no particular risk while ESL status was a first-semester risk with little power to predict long-term vulnerability (McGillin, 1993). In contrast, personal concerns and academic risk predicted poor first-year outcomes in performance and retention while health

and physical disability risks posed problems for retention but not academic performance (i.e., ill students left school for ongoing medical care). In contrast to all other risk researchers, we also explored the impact of combining these risk factors. Not only did we find a high level of overlap in risk groups (over 25% of at-risk students could have been classified in more than one risk category), we found that when overlap occurred, vulnerability increased nonsummatively; that is, two risk factors more than doubled a student's probability of academic vulnerability. This increase in vulnerability was found for all combinations of risk factors. Risk factors that failed to predict poor academic outcomes individually (e.g., learning disabilities) were found to combine negatively with other indicators of risk (e.g., a multicultural student with a personal concern or a student with learning disabilities and weak academic ratings) and resulted in relatively high levels of vulnerability.

Characteristics of Resilient Students

While investigating risk outcomes, we identified students in the risk pool who not only did not fail but showed significant achievement (e.g., grades of 3.00 or greater on a 4.00 scale). This latter group led us to initiate the first longitudinal, exploratory resilience study. In that study, we interviewed a group of resilient students during their second and third semesters, asking them to reflect upon their high school and transition experiences, their support networks, and their coping strategies. We compared their responses with those of at-risk students who were placed on academic probation (McGillin, 1995).

Resilient students experienced stress, such as loss of old support networks and challenges to their academic preparation, during their transitions to college. Almost nothing was left of their high school academic or social support networks during their first semester in college (Table 3). Of particular note,

Table 2 Categories of at-risk students at Wheaton College identified at admission

| Category | Source of Categorization |
|---------------------------|---|
| Academic Risk | Below mean admissions composite rating based on all academic records |
| Cognitive Risk | Self-identification or guidance counselor identification as having learning disabilities |
| Psychological Risk | Self-identification or referee identification of significant personal or familial problems with or without impact on academic records |
| Physiological/Health Risk | Self-identification or referee identification of significant health concerns or physical disabilities, with or without impact on academic records |
| Cultural Risk | 1. Not a native English speaker 2. Self-identification as African American, Asian American, Native American, Hispanic American, or Multicultural |

while parents and family were identified as primary academic and social supports of these students when in high school, parents were dropped almost completely off the list of first-term college supports, particularly for males. Faculty members and advisors not only became the primary academic supports by the third semester, they were also cited by nearly one third of the resilient students as primary social support. Resilient males, more so than resilient females, also grew to rely more on their peers for academic support as they progressed through school. Almost all resilient women, when detailing their social support networks during their first semester, identified individuals with whom they shared residential space (roommate, suite mates, people on the floor, residential staff). By the second semester, their social networks had begun to expand to include a more diverse group of peers and adults. In contrast, resilient men established very dispersed peer social networks (roommates, classmates, etc.) from the beginning of their college transition and incorporated adults by their third semester.

When we contrasted these responses with information provided by vulnerable students who had been placed on second-semester academic probation (they received less than a 1.67 GPA their first semester), two critical findings emerged. First, in contrast to their resilient peers, vulnerable students on academic probation were rarely able to name any individual who served as an academic support during their first semester. They saw themselves without

any significant academic coping assistance. Second, 86% of the at-risk women and 67% of the at-risk men named a problem in their residential space, such as roommate conflict or problems on the residence-hall floor, as a reason for academic failure. Because building a residentially based social support network was important to many respondents, especially women, difficulties in residential networks may have interfered with academic coping ability.

The first-year classification as resilient or vulnerable demonstrated long-term predictive capability. Students demonstrating resiliency in their first year were significantly more likely to be retained and graduate than their more vulnerable peers. They also succeeded at a significantly higher academic level than did their peers. The tenor of the transitional semester set the tone for much of one's subsequent college career.

Intervention to Promote Resilience

Finally, we investigated the impact of one program, designed to address the risk factors associated with one of the risk categories we originally defined: students with learning disabilities. As noted, the presence of a learning disability did not constitute a significant independent risk factor. However, when learning disability was found in combination with any other risk factor, the probability of vulnerable outcomes increased.

We designed an early intervention program to address issues of self-esteem and self-efficacy, and

Table 3 Percentages of resilient men (*n* = 14) and women (*n* = 18) who named sources of academic and social support in high school, their first college semester, and after the first year of college

| Sources of Academic Support | High School | | First Semester | | Third Semester | |
|-----------------------------|-------------|-------|----------------|-------|----------------|-------|
| | Females | Males | Females | Males | Females | Males |
| Parents | 46 | 60 | 54 | 0 | 7 | 20 |
| Other family | 15 | 0 | 0 | 0 | 0 | 0 |
| Teacher/professor/advisor | 62 | 60 | 62 | 40 | 92 | 100 |
| Other adult | 69 | 0 | 15 | 20 | 7 | 0 |
| Self | 7 | 20 | 7 | 0 | 31 | 20 |
| Friend/peer | 0 | 0 | 15 | 40 | 23 | 80 |

| Sources of Social Support | High School | | First Semester | | Third Semester | |
|---------------------------|-------------|-------|----------------|-------|----------------|-------|
| | Females | Males | Females | Males | Females | Males |
| Parents/family | 54 | 60 | 15 | 0 | 31 | 0 |
| Other adults | 46 | 20 | 0 | 0 | 22 | 20 |
| Teacher/professor/advisor | 15 | 20 | 7 | 0 | 31 | 40 |
| Friends | 100 | 40 | 62 | 100 | 69 | 80 |
| Roommate/floormate | 0 | 0 | 92 | 40 | 54 | 40 |
| Classmates | 0 | 0 | 7 | 20 | 0 | 0 |
| Significant other | 0 | 0 | 0 | 20 | 0 | 0 |
| Teammates | 0 | 0 | 23 | 0 | 15 | 20 |

to increase access to social and academic support networks among students with learning disabilities. The Pre-college Workshop was a 2-day program scheduled just before new student orientation. During those workshops, students were exposed to a number of messages, supports, and skills. Programs sought to normalize the diagnosis of learning differences by featuring upper-class peers who spoke comfortably about their differences. By showcasing successful, upper-class students with learning disabilities, the program addressed issues of self-esteem and self-efficacy. Workshops concerning the writing program, academic computing, tutoring, and study skills introduced students to the academic support network and how to access the services. They also introduced students to strategic skills development. Workshops in which specific strategies were taught, such as how to approach faculty about accommodations, promoted a sense of self-efficacy. In addition, students spent time with the assistant dean to review academic choices for the fall, and they participated in scheduled peer interaction, which jump-started primary social and academic networks.

All students identified as having learning disabilities, either by personnel at the Admissions Office or through responses to a class-wide mailing that invited self-disclosure, were invited to the Pre-college Workshop. While nearly every student indicated that he or she wanted to participate in the Workshop, a significant number of interested students ($n = 14$) could not attend because of work or family commitments. These nonattending students constituted an ideal control group of comparably motivated but not "oriented" students. We compared the 21 attendees with the control population and found them to be comparable in risk profiles and in high school performances. As reported (McGillin, 1996), the impact of that short intervention program was significant:

1. The Workshop students completed significantly more credits with a significantly higher GPA during the first semester than did the control group.
2. By the second year, students who had attended the Workshops were far more likely to be classified as "resilient" (GPAs in excess of 3.0) while nonattendees were significantly more likely to be classified as "vulnerable" (GPAs less than 1.67).
3. Academic performance, as measured by grade points (Credits \times GPA), was consistently higher throughout the college careers of students who had attended the Workshops than it was among the control students.

4. Students who attended the Workshops were retained to graduation at a significantly higher rate than were the nonattendees.

These results provide a powerful argument for promoting resilience early in at-risk populations. In at least one risk population, introducing a program that promoted both self-esteem and self-efficacy, as well as establishing support networks, had lasting consequences for student academic success.

Implications for the Role of Advisors in Small Institutions

From a review of the existing resilience literature and the preliminary data reported in the Transition to College Study, two factors are repeatedly cited as key to promoting resilience in at-risk populations: a) personal experiences of self-esteem and self-efficacy and b) the availability of supportive others. On small campuses, where faculty-student contact is considered to be the core of the academic experience, advisors are critical for implementing both factors.

Academic advisors are often the first and most important contact a student makes with an institution of higher education. In the case of faculty and staff advisors, the academic advisor may be the single, adult support person present at the start of a student's academic career. Central to the role of academic advisor is student course selection. Advisors are uniquely placed to help a student connect-the-dots of what may seem a disparate educational process that includes course work, fieldwork, and cocurricular activity. Students develop a sense of mastery as they begin to understand the maps that they are constructing through the curriculum. Which courses will best challenge the student's current skill levels and fall within the range of her or his ability to succeed? The advisor who takes the time to assess the student's academic preparation, coping skills, and risk factors is best placed to advise the student on the most appropriate first courses. As important as a social life may be, students primarily earn their self-esteem and experience the strongest sense of self-efficacy when they are effective in the classroom. The student who finds challenge and excitement in the classroom further expands his or her sense of self-efficacy. The student who unknowingly selects a class that is far above her or his ability to comprehend may experience failure with its concomitant impact on self-worth and self-efficacy. Through appropriate guidance in the course selection process, advisors are key to promoting important personal resources associated with resilience during the tran-

sition from high school to college.

Academic advisors are identified by the institution and by students as the primary source of academic coping assistance. As such, they function not only as a form of social support but also as a critical coach in learning, selecting, and implementing academic coping strategies. When a student finds him or herself in academic difficulty, the advisor's ability to effectively recommend academic strategies or to effect a referral to the correct sources of academic support can prove key in promoting resiliency. As seen in the *Transition to College Study*, students turn to faculty members and advisors as primary environmental resources for resilience.

On small campuses, the prevalence of at-risk students renders resilience-promoting skills in advisors critical to the students and the institution. If at-risk students (and their parents) seek out smaller institutions because of the promised individual contact and the assurance that "no one can get lost at this school," then small colleges and universities must be prepared to meet the needs of the at-risk population. Mission statements of small institutions speak to the ability of these schools to take the time and provide the attention needed to elicit the most resilient response from all students. If at-risk students constitute a larger proportion of small college and university populations than they do at larger schools, advisors at small colleges need to respond to the mission-stated profile in even the most competent students. The present study indicates that at-risk students will seek this support from faculty advisors.

College is a transforming environment for students who successfully stay the course. The academy will place stress on each student to grow, and this stress could prove critical to an already vulnerable student. Sufficient levels of challenge, supplemented by active support, promote development (Mahoney, 1991). Academic advisors at small institutions are not the only sources of academic support and coping assistance, but they may be the most obvious to the students. Institutional advising systems must prepare advisors to recognize forms of risk as well as evidence of resilience in their students. Advisors must also be trained and supported to challenge advisees to take academic risks that are within their potential ranges, develop new coping strategies, and support the learning that results from these challenges. Trained advisors are necessary for the success of the most resilient and the most vulnerable undergraduates.