In Search of a New Equilibrium: Economic Aspects of Higher Education’s Changing Faculty Composition

David H. Monk*
Michael J. Dooris**
Rodney A. Erickson***

An earlier version of this paper was presented at the Second International Conference on Educational Economics at the University of Athens in August 2008. The authors wish to express thanks for the helpful comments that were made at the conference. Additional very welcome assistance was provided by James Fairweather, David Leslie, Kathy Ruhl, Sharon Patrick and Rachel Smith.

* Dean, College of Education, Penn State University (corresponding author)
** Director of Planning Research, Penn State University
*** Executive Vice President and Provost, Penn State University
Abstract

This paper examines the interconnected phenomena of recruitment, retention, and utilization of faculty at research universities, with special emphasis on the changing mix of tenure track and contingent (i.e., fixed-term) faculty members. The authors argue, based both upon national data and detailed information from a particular institution, that powerful economic forces are prompting research universities to rethink fundamental strategies about the core academic workforce.
I. Introduction

In our roles as university administrators, we make decisions almost daily about the recruitment and retention of faculty members and the utilization of faculty talent. We see these as interconnected phenomena since decisions about who to hire and retain bear on the work that is subsequently done, just as decisions about the work to be done have implications for who can be recruited and retained. In our roles as scholars, we are curious about the underlying forces that influence these decisions and recognize their economic dimensions. We are also interested in the educational consequences.

Our work draws upon national data for United States research universities. While there is overlap among community colleges, liberal arts colleges, comprehensive universities, and research universities, contextual factors are often specific to different academic market segments. We also examine data and practices at Penn State University, a major public research university in the United States. We provide the Penn State analysis partly because we have access to the relevant data and partly because it is useful and necessary to focus the discussion at the institution level.

The topic has a strong practical component, addressing questions that are relevant to both scholars and academic administrators in higher education. What can academic administrators and researchers do to better understand faculty labor markets and the structure of faculty work? How can they help strengthen, continually renew, and effectively utilize their institutions’ professoriate?

We begin with an overview of the economic context facing research universities in the United States and call attention to several aspects of fiscal stress facing these institutions. In Section III, we report trend data regarding types of faculty appointments and the evolving nature of the faculty workload. We are particularly interested in the changes taking place in the share of tenure track faculty members relative to the share of faculty members with fixed-term contracts of various kinds. In Section IV, we examine reasons for the trends and the educational consequences. We conclude in Section V with a discussion about implications for the future.

II. The Economic Context

Research universities pursue ambitious and seemingly open-ended missions where they simultaneously aspire to generate ever larger amounts of new and highly valuable knowledge along with meeting their responsibility to meaningfully extend existing knowledge to variously defined constituencies. Public research universities have additional responsibilities for serving the immediate as well as longer term needs of taxpayers who help cover costs. In some states, student population growth is robust, adding further pressures on public universities. Budgets for these institutions vary substantially but are

---

1 A note on nomenclature: We use the term “tenure track” to refer to faculty members who have either been awarded tenure or who are eligible for tenure and who are working toward a tenure review. We use the terms “non-tenure track,” “contingent,” and “fixed-term” interchangeably.
always finite, and basic economics teaches that open-ended ambitions in the face of finite resources give rise to feelings of fiscal stress.

While feelings of fiscal stress may be widespread within higher education, the precise magnitude and nature of the stress varies considerably across institutions. We single out two dimensions of fiscal stress for illustrative purposes: a) declining state general appropriations support and b) growing gaps in endowment income.

Declining State Support

There is great variation in the level and nature of general appropriation state support coming to research universities in the United States. At one extreme, there are states like Florida where state support in per capita terms historically has been comparatively high, although Florida in the past several years has been making significant reductions. At the other extreme are states like Pennsylvania where there is a history of low levels of per capita support for public higher education. What is more generally true is that a significant downturn has taken place during the past 10 years in the percentage of state support to public research university funding that is contributed by state appropriations. Regardless of whether the state support historically has been high or low, it is in relative decline.

Figure 1 dramatically illustrates how this decline has affected Penn State. At this university, the cumulative long-term impact of the slowly growing (in nominal dollars) state appropriation, which translates into a decline as a percentage of the University’s total budget, has fundamentally altered the economic environment in which the institution operates. Four decades ago, state appropriations provided for roughly 70% of the University’s general funds operations. Today, state appropriations account for only 22% of the general funds budget and less than 10% of its total budget. Figure 1 shows the extent to which Penn State has turned to tuition as its main source of general funds.
Penn State has been able to rely more heavily on tuition revenues as a means of offsetting reductions in state support. Other public research universities in the United States have less independent authority over the setting of tuition. Nevertheless, national data reveal similar shifts toward greater reliance on tuition revenues for the sector as a whole.

The State Higher Education Executive Officers (SHEEO) organization has compiled and published the relevant data gathered from sources including the National Center for Education Statistics, the Bureau of Economic Analysis, the Bureau of Labor Statistics, and the U.S. Census Bureau. According to the 2007 SHEEO report, state and local higher education appropriations nationally fell from 78% to 64% of total educational revenue from 1982 to 2007. During that same 25-year period, net tuition revenues rose from 22% to 36% of total educational revenue. In other words, the data represented by what might be called the “X-graph” in Figure 1 are unique to Penn State, but nationally higher education in public as well as private settings is similarly relying more upon tuition and less upon state appropriations.

Research universities face market realities which translate into worries over competition from less expensive alternatives like community colleges. They must credibly make the case to prospective students and their families that the additional costs associated with their programs are worth bearing.

Growing Gaps in Endowment Income

Financial pressures also arise from the large and growing differences in levels of endowment income available to research universities in the United States. Data describing the rank order distribution of endowments, shown in Table 1, provide one clear illustration of how differentially wealth is distributed across United States universities and support the proposition that major research universities (like those listed in Table 1) face fundamentally different resource realities. Even for the 30 most well-endowed institutions in the nation, the differences are striking. Endowment values tail off very quickly from #1 Harvard’s $34.6 billion down to #30 University of North Carolina’s $2.2 billion. Penn State ranked #46 in 2007 with an endowment valued at $1.6 billion. One way to appreciate this profound difference is to realize that most universities in the United States have total endowments smaller than the annual amount realized in the growth of the Harvard or Yale or Stanford endowment in a typical year.

Table 1. Fiscal Year 2007 Endowment Values and Percentage Change from 2006

<table>
<thead>
<tr>
<th>2007 Value</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>$34.6</td>
<td>19.8%</td>
</tr>
</tbody>
</table>

---

2 Data Note: “General Funds” are dollars used for educational and general purposes; the other two large budget components are restricted funds which support contract research and auxiliary enterprises, which include break-even operations such as housing and food services.
2. Yale $22.5  25.0%
3. Stanford $17.2  21.9%
4. Princeton $15.8  21.0%
5. Texas $15.6  18.0%
6. M.I.T. $10.0  19.3%
7. Columbia $7.1  20.4%
8. Michigan $7.1  25.4%
9. Pennsylvania $6.6  24.9%
10. Texas A&M $6.6  16.8%
11. Northwestern $6.6  26.5%
12. California $6.4  16.2%
13. Chicago $6.2  27.5%
14. Notre Dame $6.0  34.7%
15. Duke $5.9  31.4%
16. Washington University (St. Louis) $5.6  18.9%
17. Emory $5.6  14.2%
18. Cornell $5.4  25.5%
19. Rice $4.7  17.1%
20. Virginia $4.4  20.8%
21. Dartmouth $3.8  21.6%
22. Southern California $3.7  21.2%
23. Vanderbilt $3.5  18.4%
24. Minnesota $2.8  26.1%
25. Johns Hopkins $2.8  19.1%
26. Brown $2.8  21.4%
27. Ohio State $2.3  17.1%
28. Pittsburgh $2.3  25.0%
29. University of Washington $2.2  21.7%
30. North Carolina – Chapel Hill $2.2  32.1%


It is also the case that the great disparity in wealth is growing; in other words, each year it falls off more and more quickly from the top. Even among the top 30 institutions, the endowment gap – the differences between the elite few and the rest of colleges and universities – is visibly widening. In 2007, Harvard’s endowment was 16 times greater than that of #30 North Carolina’s. Ten years ago (that is, using 1997 endowment values), Harvard was also #1, but its $10.9 billion endowment was 12 times the value of then #30 Purdue’s endowment of $856,000. If these comparisons are extended to a broader group, by comparing #1 to #100, the widening gap is equally apparent. In 2007, the largest endowment was 48 times the value of the #100 endowment, up from 36 times larger in 1997 (The Chronicle of Higher Education, 2008; National Association of College and University Business Officers, 2008).

The widening differences in levels of wealth need to be viewed in light of these institutions’ common commitment to the conduct of cutting-edge research. Universities with endowments in the $1.6 billion range (like Penn State) are competing head-to-head with universities in the $10+ billion range (like MIT), and this sets in motion powerful
forces to enhance the competitiveness of less wealthy institutions. Although the recent turmoil in the financial markets has undoubtedly affected the absolute values of university endowments, we suspect our main point about the wide (and possibly growing) variation in the endowment wealth among research universities remains valid.

### III. Faculty Appointments, Faculty Workload, and Faculty Retention

**Full-Time versus Part-Time Appointments**

There are approximately 1.3 million faculty members employed in United States colleges and universities. In 2005-06, according to the latest data available from the United States Department of Education (August 2007), 917,000 or 71% of these faculty members were in four-year colleges and 373,000 were in two-year colleges. Those proportions have not changed in a generation; in 1985, 71% of the United States faculty members were also located in four-year colleges.

What has changed dramatically is the distribution of full-time versus part-time appointments. The data show 676,000 (of 1.3 million) or 52% of these faculty members holding full-time appointments in 2005-06 compared to 64% in 1985. The decline in the full-time share is even more dramatic when a longer time period is examined; 78% of the faculty in U.S. colleges and university were full-time in 1970.

**Tenure Track versus Fixed Term Faculty Appointments**

As recently as the late 1960s, fewer than five percent of full-time faculty hires nationally were for non-tenure track positions; today, over half of full-time hires are for non-tenure track positions (Finkelstein and Schuster, 2001 and Schuster and Finkelstein, 2006). This represents a sea change in the structure of the professoriate in the United States that has not gone unremarked.

When we look at Penn State and its peer institutions, we also see clear evidence of a increasing reliance on contingent faculty. Figure 2 shows the extent to which this practice has taken hold at Penn State and at its peer institutions. Until recent decades, hiring full-time faculty off the tenure track was an exceptional rather than a common practice. Consistent with that national shift, the majority of new hires each year since at least 1993 in these universities have been in non-tenure track appointments.
Since the majority of full-time hires have, since the early 1990s, been off the tenure track, it is not surprising that contingent faculty represent a growing share of full-time faculty. As shown in Figure 3, the proportion of the full-time faculty who are in contingent appointments grew in this time period from 35% to 43% for Penn State and from 27% to 37% for the research universities in its peer group.\(^4\)

---

\(^3\) Data note: member universities of the AAU – the Association of American Universities – typically benchmark among their respective main campuses, excluding medical schools, to optimize comparability; University Park is that main campus for Penn State University. IPEDS (the Integrated Postsecondary Education Data System) is the core postsecondary education data collection program for the National Center for Education Statistics. Data are collected from all primary providers of postsecondary education in the United States. IPEDS data and data analysis tools are available to researchers on the NCES website.

\(^4\) We suspect that the higher percentages of contingent faculty at Penn State are due to differences in how universities categorize their faculty. At Penn State, faculty members who are hired strictly for work on grants are counted as contingent faculty members.
Faculty Workload

The tenure track status of a faculty appointment has an important bearing on the nature of the work being performed. Those appointed to tenure track positions are expected to develop active and successful research programs that complement their teaching, while those with non-tenure track appointments typically have more extensive teaching responsibilities. Moreover, teaching responsibilities may be further reduced for those tenure track faculty members who succeed at receiving external grant support for their research. The time needed to work on grants and contracts can come at the expense of time for teaching. External grants are competitive, and there are more opportunities for external funding in some fields than others. Thus, there is variation across disciplines in the average teaching workload for tenure track faculty members.

Given the growth in the share of faculty members on fixed-term contracts, it is not surprising to see drops in the percentage of student credit hours being generated by tenure track faculty members. As represented in Figure 4, at Penn State, from 1999 through 2006, the percentage of student credit hours delivered by full-time tenure track faculty declined from 48% to 40% (and annual research activity—mainly generated by tenure track faculty—rose from $393 million to $657 million). While many people may believe that graduate assistants and part-time faculty members are delivering a large and increasing share of undergraduate instruction, this is not true at Penn State. In fact, the proportion of teaching by part-time faculty and by graduate assistants (who are usually advanced doctoral students) has actually fallen. On the other hand, the proportion of student credit hours delivered by contingent faculty members rose from 21% to 32%.

What is less obvious looking at changes in the shares of student credit hours being delivered by different types of faculty members is the degree to which the average tenure track faculty member is changing the amount of teaching being contributed. To obtain insight into this trend, we examined the number of student credit hours being delivered by tenure track faculty members relative to the number of tenure track faculty members at Penn State, over time. In the fall of 1992, the average number of student credit hours per tenure track faculty member was 208. This ratio has decreased steadily to 191 student credit hours in 1999 and to 157 student credit hours in the fall of 2007. The corresponding figure for the average full-time fixed term faculty member in the fall of 2007 was 358 credit hours.

Given these differences in the nature of the work being performed, it is not surprising to find differences in compensation. Salaries for tenure track faculty tend to be higher than for their non-tenure track counterparts and the differences are driven largely by market forces. Research talent, particularly research talent that generates external grants and contracts, is in scarce supply in most fields and research universities are willing to pay a premium for it. Ehrenberg and Zhang (2004) conducted an econometric analysis for a sample of four-year institutions to estimated demand functions for tenure track versus contingent faculty. Their analysis of salary differences revealed that the average salary of lecturers (a common academic title for contingent faculty) compared to the average salary of all professorial faculty members at four-year colleges and universities in the United
States declined from .642 to .607 between 1989 and 1997. They attribute these declining relative salaries to the large supply of Ph.D.’s seeking work in higher education. They see the growing salary gap between contingent and tenure track faculty as one of the forces prompting efforts to unionize full-time contingent faculty members (Ehrenberg and Zhang, 2004).

At Penn State, the median salary for a tenure track faculty member at the University Park campus in the fall of 2007 was approximately $89,800. The corresponding figure for a full-time fixed term faculty member was approximately $45,400. Thus the ratio (using medians) at Penn State has been in the .51 range in the most recent period.

![Figure 4. Student Credit Hours Taught by Appointment Type – Penn State University](image)

**Figure 4. Student Credit Hours Taught by Appointment Type – Penn State University**

Faculty Retention

TIAA-CREF data (Conley, 2008) show that the average age of full-time faculty members has increased from 47 to 50 in the last twenty years and that the bulk of older faculty are still in the pipeline. TIAA-CREF research (Yakoboski, 2007) also finds that although faculty members tend to retire at ages slightly older than the general population (about age 66 compared to 62) and that some professors would like to stay as long as possible (37% plan to work to age 70 or beyond), an unprecedented wave of retirements is coming to higher education in the near future.

Just as the graying of tenure track faculty is a national phenomena, it is readily observable at Penn State as well. Since at least the early 1980s, the percentage of full-time faculty age 60 or older at Penn State was very steady at 8% to 10% until it inched above 10% in 2000 and has increased steadily upward to approximately 15% in 2007.

The rising percentages of older faculty are significant because they make it clear that major changes will be occurring over the next 5-10 years in the composition of the faculty in U.S. higher education. In addition, at Penn State we have also observed
differences in the turnover rates by type of faculty appointment. The normal turnover of tenure track faculty at Penn State is about 4% per year for tenured associate professors and about 9% per year for untenured assistant professors on the tenure track. For faculty on fixed term contracts, the turnover rate is 15% per year. Thus, the shift toward relying more heavily on fixed term faculty accelerates the rate at which further change can occur.

IV. Underlying Economic Influences and Educational Consequences

Economic Influences

The data make it clear that research universities are substantially increasing their reliance on non-tenure track members of the faculty. At first glance, this appears to be a straightforward result of cost-cutting measures universities are undertaking, perhaps in response to growing fiscal stress. We have seen that non-tenure track faculty are less expensive to hire and generate more student credit hours per capita than is the case for their tenure track colleagues. Indeed, our first approximation is that non-tenure track faculty generate about twice as many student credit hours at approximately half the salary.

However, the underlying economic forces are more complicated than this since these institutions are also aggressively seeking external grant and contract support for their research missions. It is the tenure track faculty that has explicit responsibility for leading research efforts, and it could be very short sighted indeed for a research university to pull away substantially from its investment in tenure track faculty members.

As a consequence, decision makers at research universities are being pulled in different directions, and delicate and difficult balances must be struck. We suspect great variation exists across the disciplines in how these balances are struck and that much will depend on factors such as the degree to which external funding opportunities exist for a particular unit, the unit’s history of success at competing for external funds, and judgments about future prospects for success.

We looked more carefully at the Penn State data in an effort to ascertain the degree to which this University has substituted tenure track for non-tenure track faculty appointments. We found that even though the percentage of faculty appointments on the tenure track has been dropping, the absolute numbers of tenure track faculty members has increased, albeit modestly. Between the fall of 1998 and the fall of 2007, the number of tenure track appointments at Penn State (University Park) increased from 1,612 to 1,646 or 2.1%. It follows that Penn State has not back-tracked on its investment in tenure track faculty positions, presumably because of its commitment to be competitive for grants and contracts that are well aligned with the faculty’s intellectual interests. It is nevertheless true that much greater growth has taken place at Penn State with respect to its fixed term faculty appointments which grew from 609 to 999 or 64% during the same period.

We also divided the category of fixed term appointments into its two components, multi-year fixed term and single-year fixed term, and found a substantial difference in the growth rates. In particular, between 1998 and 2007 the multi-year fixed term group grew
from 98 to 285 (191.8%) while the single-year fixed term group grew from 511 to 714 (39.7%). It is clear that Penn State is more heavily invested in the single-year fixed term type of appointment but that the mix is shifting in the direction of greater emphasis on multi-year fixed term appointments.

Educational Consequences

Should we be concerned about the impact of this shifting mix of faculty appointments on the quality of the education being delivered by these institutions? There have been worries about the erosion of academic freedom as institutions rely more heavily on faculty with fixed term contracts. Questions have also been asked about the impact on the quality of teaching.

Concerns about the status, vitality, and academic freedom of the professoriate have a notable history in American higher education. Efforts to protect the professoriate led to several versions and interpretations of the American Association of University Professors (AAUP) and the American Council on Education’s 1940 Statement of Principles on Academic Tenure. That statement, which has been endorsed by over 180 professional and scholarly groups over the past seven decades, reflects the high value that academe has traditionally placed on a secure and stable environment in which faculty can work. The AAUP has historically called for all full-time faculty appointments to be tenure track, except for special appointments clearly designed as short-term arrangements. In general, substantial reliance on large numbers of non-tenure track faculty is perceived as a threat to norms such as academic freedom (Day, 2004).

It would be simplistic to assert that X percentage of teaching by non-tenure track faculty is acceptable, while X+1 percentage is harmful. However, there is a sense that there is some line, even if ill-defined, about which institutions should be cautious. In 1993, the AAUP recommended limiting the use of special appointments for part-time and non-tenure track faculty to no more than 15% of the faculty, with responsibility for not more than 35% of instruction within any given department. Similarly, the Carnegie Foundation for the Advancement of Teaching has suggested that part-time faculty be limited to only 20 percent of undergraduate instruction (Balch, 1999).

There is evidence that when part-time faculty replace full-time faculty there are detrimental effects on students and the institution (Benjamin, 1998; Gappa, 2000). However, there is also evidence showing that when properly utilized and supported, part-time and full-time non-tenure track faculty members can be extremely effective teachers and valuable resources. Indeed, students can benefit substantially from interactions with part-time faculty who bring practical, workplace skills to a college or university. Gappa and Leslie (1997) have argued that part-time faculty members are “professionally qualified for the work they do” (p. 12) and that in general, there are more similarities than differences between part-time and full-time faculty.

Of course, there are many concerns besides possible positive or negative repercussions on the quality of teaching and learning. For example, on the positive side, compelling reasons can be offered for relying on clinical faculty and professors of practice
(who are usually not on tenure track appointments), who can share valuable field experience that is especially needed in applied fields. On the negative side, non-tenure track appointments are often perceived as being a threat to academic freedom; as an attenuation of faculty participation in institutional governance; and as a mistreatment of the individuals in terms of job security, satisfaction, salary, benefits, and working conditions. From a programmatic perspective, there are both advantages and disadvantages to the use of contingent faculty.

We noted earlier that groups such as the AAUP and the Carnegie Foundation have attempted to promulgate guidelines for the utilization of part-time and contingent faculty. However, these statements have really not been embraced by research universities. In 2007, we conducted a survey of Association of American Universities member institutions and examined whether and how ideas about the desirable proportion of teaching by non-tenure track faculty are translated into practice. We found that only 1 of 24 responding universities have a formal policy at the university level on instructional delivery by faculty appointment type (although 10 of 24 reported policies at the college or department level).

V. Conclusions and Implications

It is clear from both national and individual university data that research universities have experienced a significant weakening of state support for their core academic enterprises over the past several decades. As public financial support has eroded, these universities have had to turn increasingly to student tuition and fees to offset these declines. For many of these universities, growth in tuition and fees has also been limited by their commitments to serve students from a wide range of socio-economic backgrounds (and ability to pay) as well as by legislative and other constraints on their ability to increase tuition. Many public research universities are also pressured to open their doors to additional students in states where populations are growing rapidly.

In addition, endowment incomes are comparatively modest in most research universities and have not kept pace with the growth realized by universities with the largest endowments. Moreover, most public research universities have only recently become engaged in raising significant amounts of philanthropic support relative to their private university peers. The result is a growing gap in institutional wealth (endowment) among research universities in an increasingly competitive environment for talented students and faculty, extramural research funding, and national and international prestige.

Research universities caught in an ever-tightening vise of rising costs and increasingly scarce resources have by necessity turned to a variety of strategies to enhance revenues and reduce expenses. One of the most significant responses has been the steady movement toward greater utilization of contingent faculty at the relative expense of tenure track appointments. This shift appears to have been evolutionary in most cases and carried out within colleges and departments, where most academic staffing decisions are made, rather than being the result of a deliberate, centrally orchestrated university-level strategy. It is probably better characterized as an incremental, “muddling-through” approach as
academic units adjust to fiscal constraints while optimistically hoping or planning that the resource situation will improve in the future.

What we may be seeing then is movement away from the conventional idea of a tenure track faculty member who excels as a “triple threat” in teaching, research, and service and toward a more specialized approach or division of faculty labor. Our data indicate that tenure track faculty are teaching a declining share of student credit hours, which is entirely logical as tenure track faculty represent a declining proportion of all faculty and the pressures to produce scholarship, increase extramural funding, and participate in outreach activities are heightened. The increase in research activity among research universities in recent decades has been remarkable, and while these resources have released mainly tenure track faculty from some teaching responsibilities and freed up resources to use for alternative instructional personnel, support for the research enterprise in terms of facilities, equipment, and unrecovered overhead have added further stress to many department, college, and university budgets.

The use of contingent faculty has therefore become one of the dominating national trends of recent decades, having shifted from a situation where nearly all full-time faculty appointments were tenure-eligible to the current pattern where a majority of the new appointments are contingent. However, there is a range of contingent appointments that has potentially important implications for higher education and the professoriate. Some contingent appointments may be part-time and involve teaching regular or occasionally offered courses. Others may be full-time, extended one year at the time, while still others may involve longer-term commitments up to five years. Full-time fixed term faculty at research universities, particularly those on multi-year appointments, may be required (or at least encouraged) to engage in some level of scholarly research, although not at the same level as tenure track faculty given the differences in the teaching expectations.

Multi-year fixed-term faculty appointments are a kind of hybrid that we predict will become increasingly important in the future research university as fiscal stresses become no less severe in coming years. Growing specialization of faculty roles and associated workloads may result in those faculty members on the tenure track becoming more research oriented while those on fixed-term contracts emerge as a new class of teaching faculty. Those on multi-year appointments have considerable job security, and they may well become the work horse of the university in terms of instruction, at least in lower division teaching. In this light, we repeat our finding that the fastest growing contingent faculty appointment type at Penn State between 1998 and 2007 was the multi-year fixed term variety. Stepping away from the more complementarily view of faculty roles (i.e., research informs teaching and teaching informs research) has many implications for research universities in terms of the educational process and what have traditionally been a major differentiating element of comprehensive research universities. Given the age demographics of the American professoriate and the large numbers of retirements that will be occurring over the next five to ten years, the changes we anticipate taking place could be quite rapid.

We are not yet in a position to develop tight arguments about what combination and sequence of coping strategies is most likely to occur under what set of circumstance, but we
hope to learn more as we gather and analyze additional data. It is likely to be the case that there are few, if any, coping strategies that come without costs or associated consequences.
V. References


