

Green Business Programs in AACSB Schools: Survey of Deans on Sustainability Programs and Courses

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ABSTRACT

This study reports on the practices, plans, and viewpoints held by a segment of business school deans concerning the integration of business sustainability topics in academic programs. We gathered information using an online survey, which we analyzed and present in our paper, together with commentary on recent aligned research on sustainability in academia. The growing global interest in business sustainability presents challenges and opportunities in business programs. Given the corresponding changes underway in business programs addressing sustainability issues, (including the addition of sustainability requirements in the AACSB's 2013 accreditation standards), we believe our study may provide constructive information for business programs working to integrate sustainability within their curricula.

INTRODUCTION AND LITERATURE REVIEW

Rapid advances in global technologies offer the prospect of exciting future opportunities on many levels. Paired with corresponding population increases and resource concerns, these opportunities are tempered by environmental challenges; with some increasing at what many consider dangerous and exponential rates (Hansen, Nazarenko, Ruedy, Sato, Willis, Del, Koch, Lacis, Lo, Menon, Tovakov, Perlwitz, Russell, Schmidt, and Tausnev, 2005). While differences in opinion exist on the challenges, level of threats, and rates of increase, governments, society, and businesses have jointly recognized the need for further knowledge of these potential environmental vulnerabilities, as well insights and more information on feasible alternative remedies. The business community is well aware of the importance of recognizing these issues, with some working toward leadership roles. A growing sustainability reporting movement, the Global Reporting Initiative (GRI), currently [February 2015] has over 7000 organizations with over 22,000 reports that were voluntarily submitted to their sustainability database. The GRI is growing rapidly and is now supported by four of the world's largest accounting firms, among many others. Some sustainability experts believe the path to lasting sustainability progress starts with accounting (Weybrecht, 2010), providing needed measurability to an otherwise often qualitative area. New business areas, and opportunities, have developed in response to this growing environmental awareness, with new technologies finding receptive and large markets for practical environmental solutions. "Green Business; Sustainable Production; Environment Friendly

Products & Production, Green Accounting” are but a few of the now common terms found throughout our global world.

The academic community, notably business schools, have also responded, with growing interest and active program development (Theissen, 2011). Sustainability pairs well with corporate social responsibility programs, which have been integrated within business academic programs for some time now. The AACSB and EQUIS both require sustainability curricular coverage, written into their most recent accreditation standards. The AACSB has added an annual sustainability conference to their educational programs, and it has recently added a Sustainability Resource Center to its website. With varying levels of interest and progress, university business programs are incorporating sustainability topics into their curricula.

Some segments of the business community have reacted enthusiastically to the growing global interest in sustainability. They believe the sustainability area offers new market segments, new potentials in current markets, and the prospect of landing on the favorable side of product development life cycle curves. As technologies move society to advanced levels, with new products and applications, sustainability has a place within that advancement, adding to growth [and profits], not hindering it. The AICPA adds that business should move toward business sustainability “not just because it is the right thing to do, but also because it makes good business sense.” [Coffey, 2012] Ernst & Young report [2012] that sustainability performance in now part of increasing numbers of corporate reports.

The academic community needs to work with business to provide leadership, research, and motivated graduates ready to take on the challenges and opportunities these technologies offer, in safe, sustainable, and, yes, profitable directions. Recent adoption of some environmental and sustainability academic program initiatives have shown valuable progress (Costanza, R., d’Arge, R., de Groot, R. Farberk, S., Grasso, M., Hannon, B., Limburg, K., Naeem, S., O’Neill, R., Paruelo, J., Raskin, R., Suttonkk, P., & vab deb Belt, M., (1997). This momentum will likely increase, given the continued impetus from society, the need to meet accreditation standards, and the expanding commercial market for green products and technology. Yet the future remains cloudy; much needs to be done, and learned. It remains unclear how business schools will ultimately respond with viable program initiatives that will meaningfully contribute to business leadership and measureable progress. Will business programs take the route of meeting the standards, “checking the boxes,” but adding little to the research and leadership needed to truly meet the needs of advancing global technologies and environmental issues? Or will significant steps be taken: new academic programs, integrative curricular approaches with meaningful advances? Such progress requires energy, enthusiasm, change – a truly dynamic willingness to change, something, in the opinion of some, our comfortable academic lives are not always eager to embrace. Has the attention paid to business ethics, integrative course approaches, assessments, and accreditation requirements truly produced a generation of business school graduates with higher ethical standards? Perhaps...

A recent study by Rezaee and Homayoun [2014] concluded that “business colleges and accounting schools have much work to do in terms of motivating students to the importance of CSR and sustainable practices in business programs.” Their conclusion was based on their examination of 45 business sustainability education course syllabi with corresponding observations from academics. The question of efficacy in terms of having students understand the importance of CSR and sustainability remains, regardless of the apparent positive directions taken to integrate these areas within academic curricula (Rundle-Thiele and Wymer, 2012).

With these issues in mind, and in light of heightened interest in sustainability by both the business and academic communities, we developed a survey aimed at learning more about the academic practices, and the viewpoints of those most responsible for business school future directions, the deans. The survey: (1) identifies existing academic sustainability coverages, (2) investigates, more generally, the viewpoints on the viability of types of sustainability programs, current best practices, and visions of mid-sized U.S. AACSB Business School Deans.

METHODS, RESULTS, & OBSERVATIONS

We used web-based survey software (Lime) to find information on the practices, plans, and views of the deans of mid-sized AACSB business schools in the United States. While we hope the results and our observations would have value to others, we had a more parochial motivation as well. We are in the process of developing an inter-curricular sustainability center at our university. Our business school is taking the lead role. We believed that the survey results would provide us with valuable insights with which to move forward.

Although we had hoped for a more representative response level, we ended up with a respectable 31 responses of the 83 deans we polled (37%). In addition, the nature of voluntary surveys necessitates a less detailed investigation than might be desired, and less detailed than the Rezaee and Homayoun [2014] study we cited above. We believe, however, our completed analysis of the results will yield the valuable insights and information we sought. We hope it might have some value for others as well.

The survey included 21 main questions, with a set of sub-questions for those schools that already offered some form of stand-alone sustainability courses. The questions were all simple multiple-choice, online response, and designed to appear relatively easy to complete. Most of the questions were of the “strongly disagree to strongly agree” fashion, while some required further depth. We estimated the survey would take roughly 15 minutes to complete, although the opportunity for more depth, including an open ended question, afforded those desiring the opportunity to provide more information and opinions to do so.

In addition to the survey data as reported by the Dean respondents, we also collected other “demographic” information on those schools that responded to the survey and identified themselves to us (n=24 of 31 respondents). Demographic data collected includes business school and institutional enrollment, U.S. geographical region of the school location, whether the institution is private or supported publically, endowment size of the institution, and types of degrees conveyed by the institution. Data was collected from the College Bluebook (Romaniuk, 2015), AACSB membership database (AACSB), and the U.S. Census Bureau.

Responses to the survey questions were then compared using groupings based on the demographic data outlined above. Depending upon the type of data collected with each survey question (nominal, ordinal, or interval), either a chi-square test, hypothesis test, or ANOVA was used to see if there was any relationship between the demographic variables and respondent answers. Significant findings on this portion of the investigation are noted where appropriate below, along with the survey findings.

We initiated the survey by asking respondents to identify with one (or more) of the following sustainability definitions. Interestingly, the only one that directly mentioned CSR had the lowest response rate. To be fair that definition compared CSR to sustainability so it’s ‘avoidance’ may have nothing to do with the CSR term. Most respondents favored the definition

that included a firm's triple bottom line joining profit motivations along with social and environmental goals.

Table 1: Sustainability Definitions

Field summary for 1		
The term "sustainability" is not clearly defined in the 2013 AACSB standards. Different sustainability definitions are found in industry, government, academics, and globally. Which of the following is most consistent with your business school's understanding of sustainability? Respondents could check more than one.		
Answer:	Count	Percentage
An appreciation for the impacts of business activity on society, especially the environment, beyond simply focusing on short-run corporate profits (SQ001)	8	21%
Finding a way for businesses to meet the demands of today's customers without compromising the needs of future generations (SQ002)	8	21%
Corporate social responsibility typically addresses the social impacts of past corporate actions, while sustainability seeks to change the future direction of the company. (SQ003)	3	8%
Sustainability considers business practices that enhance the firm's long-term triple bottom line, which includes monetary profits, social impacts on the community, and environmental impacts on the firm's stakeholder eco-system (SQ004)	20	51%
	total Responses	100%

Using the collected demographic data a significant difference was found between schools with smaller and larger endowments on the acceptability of the first definition above ($\chi^2=4.492$, $df=1$, $sig.<.05$). Four out of 11, or 36%, of lesser endowed schools (endowment < \$32.6 million) reported the first definition as consistent with their understanding of sustainability, while none of the ten schools with larger endowments (> \$32.6 million) reported such consistency.

Evidence was also found that differences exist between institutions that offer doctoral degrees and those that do not. A weak association was seen between the types of degrees offered and the first definition in Table 1. Only 1 out of 14 (7%) of institutions offering doctoral degrees found this definition consistent with their own thinking, while 40% (4 out of 10) of the institutions that do not offer doctoral degrees thought it consistent ($\chi^2=3.818$, $df=1$, $sig.<.10$). Doctoral granting institutions and non-doctoral granting institutions also differed on the final definition in the table, with 12 of 14 or 86% of doctoral granting institutions finding the fourth definition consistent and 40% (4 of 10) of non-doctoral granting institutions doing so ($\chi^2=5.486$, $df=1$, $sig.<.05$).

Business schools indicated a diverse approach to covering sustainability within their curriculum. We were surprised to see that only about 30% had sustainability embedded within existing core courses, and one-quarter of the schools reported "no program or emphasis in place yet." No schools had yet required sustainability courses within their core, and only one in ten had any sustainability elective courses. This may be because we targeted mid-sized schools. We suspect that larger schools would at least have elective courses, including a major or minor, none of which our respondents had. We are a somewhat small school, with business student enrollments of about 500, yet we have had an elective sustainability course for almost five years now. (Enrollments are now building, although admittedly the course got off to a slow start.) Four of the 31 respondents included some level of emphasis in sustainability in their capstone course.

An analysis of differences between programs based on the demographic variables showed no current differences of interest between schools on their sustainability practices. However, when the schools were asked to look three years into the future, some interesting differences did

materialize. First, differences were seen in several cases when schools were asked if sustainability is emphasized with faculty and students, even if no specific program yet exists (a positive answer to this question would seem to indicate that a school is “thinking about” sustainability initiatives for the future, but has not yet determined exactly what they will do). One-half (9 of 18) of state-supported institutions indicated that they are thinking about sustainability approaches for the future, while no private institutions noted any such thinking (0 of 6) ($\chi^2=4.800$, $df=1$, $sig.<.05$). When examining this result in conjunction with current practices, it seems that private schools may differ from their state-supported counterparts about future thinking because they already have some programs in place (5 of 6 private schools disagreed with the statement that sustainability is currently emphasized with faculty and students, but no specific program exists yet); therefore, it would seem that the issue here may be that the laggards here may be a group of state-supported schools.

Similar findings are found when comparing business schools whose institutions offer doctoral degrees, to those whose institutions do not offer such degrees. There is a significant difference between these types of schools when looking to the future with only 2 of 14 (14%) business schools whose institutions offer doctoral degrees indicating emphasis, with no programs in place three years into the future, while 7 out of 10 (70%) of non-doctoral granting institutions report the same stance ($\chi^2=7.726$, $df=1$, $sig.<.01$). However, unlike with private versus state-supported schools examined above, a look at the current practices of these different types of schools does little to shed light on this difference.

Some differences were also seen between types of schools based on demographics when looking at their considerations for specific types of practices three years into the future. For instance, smaller schools (both in terms of business school and institution enrollments) report a greater possibility of emphasizing sustainability in their required business capstone courses than do larger schools. Based on institutional enrollment, four of 12 (33%) smaller schools report plans to emphasize sustainability as a topic in a required business capstone course, while no larger schools report such plans ($\chi^2=4.800$, $df=1$, $sig.<.05$). The same is found when comparing based on business school enrollment, with three of seven smaller schools reporting such plans, and no larger schools doing so ($\chi^2=4.168$, $df=1$, $sig.<.05$).

Doctoral granting institutions also differ from non-doctoral granting schools when it comes to specific future plans for including sustainability in their curriculums. Eight of 14 (57%) business schools in doctoral granting institutions report plans to embed sustainability in existing core business courses, while only 20% (2 of 10) non-doctoral institutions have such plans ($\chi^2=3.311$, $df=1$, $sig.<.10$).

Several other significant differences on future plans were found between types of schools based on geographic region and support (state or private). However, upon examination of the results, it was found that many of these factors were due to one or two schools being different from all the rest, so specific results are not detailed here. However, it may be important to note that only one school in our respondent group plans to offer either a sustainability minor or major in the future.

When deans were asked to consider what changes they would make to their programs in regards to sustainability if they had no constraints on their curriculums, a few differences surfaced between types of schools. Only eight schools indicated that they would offer elective courses in sustainability, with two of those schools being from the northeast (100%, 2/2), five from the south (25%, 5/20), and one (of two, 50%) from the Midwest ($\chi^2=3.311$, $df=1$, $sig.<.10$).

With unconstrained curriculums, deans at schools with larger endowments reported more interest in interdisciplinary sustainability courses (80%) than did their counterparts at schools with smaller endowments (27%) ($\chi^2=5.838$, $df=1$, $sig.<.05$). Deans at schools with larger endowments also favored requiring sustainability topics in one or two core business cores (70%) than did those at schools with smaller endowments (27%) ($\chi^2=3.834$, $df=1$, $sig.<.10$).

A difference was also seen between deans depending upon the type of AACSB accreditation held by their institution. No deans (0 of 4) in schools where both business and accounting programs are accredited felt they would include sustainability topics in most business core courses, while 21% of deans (4 of 19) at schools with only business accreditation and one dean at an un-accredited institution saw this as a possibility ($\chi^2=4.853$, $df=2$, $sig.<.10$).

The following charts show response attitudes toward a series of approaches, viewpoints, and other sustainability matters, with our discussion following. We have shaded in some response areas of highlighted interest.

Tables 2 & 3: Value of Sustainability Programs & Approaches

	<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>No Answer</i>	TOTALS
SUSTAINABILITY & ACADEMIC PROGRAMS:							
“Sustainability topics are an important component of business education.”	8 27%	18 58%	2 6%	1 3%	0 0	2 6%	31 100%
“The following approach is likely to achieve valuable and lasting student sustainability awareness, interest, and knowledge.”							
Sustainability topic embedded in more than one core course	14 46%	11 35%	4 13%	0 0	0 0	2 6%	31 100%
Sustainability topic as a significant new component of an existing Business & Society course	5 16%	14 45%	7 23%	1 3%	1 3%	3 10%	31 100%
Sustainability topic embedded broadly across major area courses	9 29%	12 39%	5 16%	2 6%	0 0	3 10%	31 100%
Required sustainability core course	5 16%	4 13%	9 29%	7 23%	3 10%	3 10%	31 100%

It is encouraging to note that substantially all (85%) agree (58%) or strongly agree that sustainability topics are important components of business education. That much work needs to be done in providing valuable sustainability program coverage is apparent, as indicated below with only nine of the 31 respondents have [at least] one course currently in place, and the low level of self-reported faculty sustainability expertise (*presented further along in the tables*).

At this time most, almost half, respondents strongly favored embedding sustainability topics in several core courses. This approach reminds us of the ethics coverage many AACSB schools chose. While in an ideal curricula an integrative approach to this and many topics is perhaps among the best of learning pedagogies, it can also represent an “easy” means to report coverage but can lack substance. For example it can be argued that including different currencies (euro, rupee, yen) in accounting homework embeds global perspectives in courses; many doubt the significance of such an approach. Raising course content from “embedded” to “significant new component” of an existing course moves reported favorability from “strongly agree” to agree,

with about 30% either neutral on the idea or disagreeing. About one one-third favor a stand-alone core sustainability course, but the remaining two-thirds don't like the idea of a core sustainability course. We suspect this is more a reflection of the difficulty in managing current curricula through the many competing demands than the importance of the area (which, as we reported in the above paragraph enjoyed very strong support). It seems the younger generation, in the eyes of the dean's anyway, is less receptive to the idea of sustainability than one might think from the popular press.

Table 4: Student Interest in Sustainability

	<i>Strong</i>	<i>Somewhat Interested</i>	<i>Indifferent</i>	<i>No Interest At All</i>	<i>No Answer</i>	T O T A L S
What level of interest do you believe your business students have in a:						
Sustainability Major	1 3%	3 10%	18 58%	8 26%	1 3%	31 100%
Sustainability Minor	1 3%	9 29%	15 49%	5 16%	1 3%	31 100%
Sustainability Courses	3 10%	16 52%	10 32%	0 0%	2 6%	31 100%
Sustainability Coursework Embeded in Regular Courses	7 23%	19 61%	4 13%	0 0%	1 3%	31 100%
Sustainability Certification Programs	1 3%	9 30%	14 45%	6 19%	1 3%	31 100%

There is essentially no interest for a sustainability major, but some interest in a minor. Over half the students seem to want a sustainability course, more than the deans' – but supporting our case that from the practical side (the dean's side) more courses in already crammed curricula is problematic. The deans reported that about a third of their students would have an interest in a sustainability certification program, which is interesting – the same number they felt might have interest in the minor. In another area we asked about enthusiasm by the school's business advisory board toward already instituted sustainability programs. This represented nine respondent schools. The deans felt the boards were "interested and supportive" at a 50% level, with only one school reporting a "strongly enthusiastic" board toward their program. Four of the schools felt their boards believed sustainability was either not a priority (22%) or inappropriate (22%). The younger generation does seem to have the stronger interest, by far, if not yet overwhelming.

Based on the demographic variables, deans at schools in the northeast U.S. feel that students are more interested in minors in sustainability than deans at schools in the south and Midwest (df=23, F=3.729, sig.<.05). Furthermore, deans at schools with larger endowments feel their students are more interested in certificate programs than do deans at schools with smaller endowments ($\mu = 3.20$ vs. 2.36 , $t=2.62$, sig.<.05).

Given the favorable, if not overwhelmingly strong, interest in sustainability by both deans and students, what about the faculty expertise – how well are we equipped to deliver credible topical coverage?

Table 5: Faculty Sustainability Expertise

	<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	<i>No Answer</i>	T O T A L S
FACULTY EXPERTISE IN SUSTAINABILITY:							
“Faculty with expertise and professional sustainability experience would be most suitable to teach sustainability courses. This would most often be adjunct teachers.”	2 6%	8 26%	13 42%	7 23%	0 0	1 3%	31 100%
“Our existing full-time business faculty can effectively deliver sustainability content or stand-alone courses without any additional training required.”	1 3%	12 40%	5 16%	10 32%	2 0.06	1 3%	31 100%
“Our existing full-time business faculty can effectively deliver sustainability content or stand-alone courses, but will require additional training.”	0 0%	16 53%	6 19%	6 19%	1 0.03	2 6%	31 100%
“All business faculty should receive some level of sustainability training as part of an integrated approach.”	1 3%	14 46%	6 19%	8 26%	1 3%	1 3%	31 100%

The deans report that existing faculty can deliver effective coverage, well about half say they can: half empty or half full? Of course if asked about coverage in the traditional areas any answer other than 100% -- of course we deliver effective coverage – would be heresy. There seems to be some acceptable level of confidence that sustainability can be effectively covered by existing faculty, but recognizing that additional training would be valuable. There was a notable minority that disagreed that current faculty could properly cover the area.

Analysis of the demographic variables shows some differences between types of schools on faculty issues. Deans at smaller schools (based on enrollment) have more agreement with the idea that existing full-time faculty can teach sustainability without any further training than do larger schools ($\mu= 3.4$ vs. 2.8 , $t=2.134$, $sig.<.05$). In addition, deans at state-supported institutions have more agreement with the idea that existing full-time faculty can teach only with more training, than do their counterparts at private schools ($\mu= 2.89$ vs. 2.00 , $t=3.195$, $sig.<.01$).

Finally, we asked about cross-discipline approaches to sustainability topics. This included coupling business faculty with faculty and courses from other areas including biology, ecology, political science, freshman orientation, and integrated within general education programs. None of the deans strongly favored any of these cross discipline approaches. About half liked the idea of enmeshing it within general education coverage. Nearly a third “agreed” that a cross-discipline approach with the other areas would be effective. (The cynic is us wonders if the general education popularity has more to do with some level of undervaluing general education than with favoring the approach, but refrain from skepticism we shall.)

For the demographic variables, based on business school enrollments, deans at larger schools also agree more with the idea of teaching sustainability in a cross-discipline approach with the biology department ($\mu=3.00$ vs. 2.20 on a 5-point scale, $t=2.343$, $sig.<.05$).

Report of Nine Schools with Sustainability Programs

Of the thirty-one respondents, nine reported to have at least one sustainability course. They listed Marketing and Sustainability, Environmental Sustainability, Sustainable Business

Management, Sustainability Topics, and Eco-Preneurship among courses they presently offer. This represented 30% of the respondent schools. The following are with respect to those nine schools and programs.

They reported that less than 25% of their students take one of their courses. This was a fault in our survey – we should have had a category for ‘none.’ We listed ‘from 1% to 25%’ as the lowest category. So it could have been 20% take a course, or close to zero. In any event, not many students are taking any sustainability courses. There were two schools (22%) reporting that from 25% to 50% of their student do take a sustainability course, which is remarkable. The nine overwhelmingly report (8 of 9) that their academically qualified, full-time faculty teach the course(s). When asked how receptive their faculty were in instituting their programs only one school reported strong enthusiasm, with most reporting that their faculty were generally “interested and supportive.” One school did report the faculty had no interest at all. As we teach in management, acceptance is best facilitated when embraced by the organization leaders... Of these nine schools, half the teachers volunteered (presumably voluntarily) to teach the course(s), with only two schools having to resort to assigning the courses as a duty. We also asked the nine sustainability program schools about effective teaching methods and assessment.

Tables 6 & 7: Sustainability Teaching Methods Employed & Assessment

	<i>Primary Method</i>	<i>Used Often</i>	<i>Used Sometimes</i>	<i>Not Used</i>	T O T A L S
Which of the following TEACHING METHODS are used in your sustainability courses?					
Lecture	6 67%	2 22%	1 11%	0 0	9 100%
Guest Speakers	1 11%	2 22%	5 56%	1 0.11	9 100%
Student presentations	3 33%	3 33%	2 23%	1 0.11	9 100%
Student projects	4 45%	3 33%	1 11%	1 0.11	9 100%
Student papers	3 34%	3 33%	3 33%	0 0.00%	9 100%
Service learning	2 23%	1 11%	3 33%	3 0.33	9 100%
How do you ASSESS sustainability learning?					
	<i>Primary Method</i>	<i>One Source</i>	<i>Not Used AT ALL</i>	<i>No Answer</i>	T O T A L S
Objective tests	3 33%	4 45%	2 22%	0 0	9 100%
Qualitative (essay) tests	1 11%	4 45%	3 33%	1 0.11	9 100%
Student/alumni surveys	0 0%	3 33%	5 56%	1 0.11	9 100%
Focus groups, exit interviews	1 11%	2 22%	6 67%	0 0	9 100%
Not directly assessed yet	0 0%	1 11%	6 67%	2 0.22	9 100%

It seems even in new areas we can't get away from our passive, we talk you listen, lecture mode of education as the primary vehicle. Ninety percent of programs used lectures as the primary teaching mode (67%) or "often." Disappointing, or so the cutting-edge educators tell us, but on the inspiring side, over half used guest speakers. Guest speakers were "used sometimes" in 56% of the courses. The 'half-empty' side of that is that if our faculty are considered adequate, but needing some training/support, why are guest speakers used only sometimes? The half-full side is that one third of the schools used guest speakers often or as a primary method of teaching. It is also encouraging to note a strong reliance on student projects, presentations and papers in two-thirds of the schools as often used or the primary teaching mode. Having students take charge of such an emerging area can yield most promising results.

In assessment we seem to be back in the old "multiple-choice memorize the stuff" testing methods, with one-third reporting objective testing as their primary means of assessment, and 75% of programs using objective tests at least "often". Exit interviews were used by a third of the programs. With new programs, some form of qualitative feedback would seem valuable, but apparently not so by most respondent schools. Only one of the nine schools did not have assessment in place as yet.

Table 8: Business School Demographics as Collected on the Survey

DEMOGRAPHICS FOR THE NINE SCHOOLS THAT CURRENTLY HAVE SUSTAINABILITY COURSES:		Responding Schools	Number of FACULTY:			Total Schools
			Average #	Minimum	Maximum	
Number of full-time faculty in your business school:	9	28	12	60	9	
Number of part-time faculty in your business school:	9	8	2	20	9	
Number of schools with at least one <u>FULL-TIME</u> faculty member with academic sustainability credentials:	4 44%	2.3	1	5	9	
Number of schools with at least one <u>PART-TIME</u> faculty member with academic sustainability credentials:	2 22%	0.5	0	1	9	
Number of schools with at least one <u>FULL-TIME</u> faculty member with professional experience in sustainability:	3 33%	1.3	0	3	9	
Number of schools with at least one <u>PART-TIME</u> faculty member with professional experience in sustainability:	2 22%	0.5	0	1	9	
Number of schools with at least one faculty member doing sustainability <u>RESEARCH</u> :	4 44%	3.5	1	6	9	

Schools with programs in place averaged 28 full-time faculty and 9 part-time. There were 2.3 full-time faculty members with academic sustainability credentials, on average, in the four schools that had such faculty. While perhaps a bit of apples and oranges, if compared to the average 28 faculty members of all the schools, this represents ten percent of the faculty. Surprisingly high, probably not comparable, but a provocative thought none-the-less. We believe in emerging and new sustainable area, those with professional expertise might be best to deliver

topically current programs in sustainability. Matching the right, and willing professional, with courses and programs could be challenging but effective.

Several school volunteered interesting comments about their programs and viewpoints on sustainability programs in general. One respondent felt sustainability was “false priority”, just a buzz-word and not real. All others were far more positive. One college competes with others colleges on their campus to reduce energy consumption. This college seems very enthusiastic about their program. They also have had success getting students involved in promoting campus recycling and resource management. They report the university administration is supportive of their program and efforts. Another school reported the success of a sustainable marketing required course for all marketing majors, and as an elective for other majors. They tried a sustainable business minor, but it failed after a lack of student interest. Another school does successfully offer a sustainability minor and have had success with an environmental economics course.

CONCLUDING REMARKS

Favorable concepts of sustainability and its importance in all aspects of human endeavor, are endorsed by growing segments of society, including political, ethical, commercial, and economic. Society’s dependence on limited resources, renewable and non-renewable, highlights the need for better stewardship and management of our environment. Sustainability has evolved from an emotional and philosophical debate to growing acceptance based on research and knowledge. It is clear that our dependence on finite, non-renewable resources has an unpleasant end. It is imperative to develop and apply behaviors that motivate and encourage new constructs that will motivate different areas of research and discovery that will help all of man-kind. Higher education has an important role in that endeavor.

To achieve this end, the understanding of our current situation and the willingness to seek out new and better ways of resource allocation are needed. The world business community can and should play a major part in the education, capitalization, and implementation of activities, both at the firm level, as well as the industry level. Partnering with business, business schools can part an important role. Through a joint and concerted effort better understanding, development, and solutions can move toward reality. Sustainability education in business programs, at the undergraduate and graduate levels, may create a deeper sense of understanding the necessity of efficient and effective resource management, as well as the impetus to develop new and renewable sources of energy. Our survey is one step in better understanding current business school curricular initiatives and programs. Empowering the next generation of business leaders with sustainability education can have a great effect on future corporate directions. While the global business community is a major stakeholder in this new sustainability philosophy, other partners, including higher education, governments and geo-politics, must align themselves with all active participants to create a global strategy to embraces the move toward sustainability.

The global business community is poised to take a leadership position in this world-wide initiative. The business leaders of tomorrow must be involved in the knowledge, education, and research focused on the concept of sustainability. This will create a level future leadership that will direct the global business community to seek out and develop new practices to help ensure a future that will allow mankind to live in a safer, more productive, and interesting world.

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