

America's Campuses: Models for a Greener Future

A National Report Card on Environmental Performance and Sustainability in Higher Education

The nation's institutions of higher education, through their teaching, operations, and research are moving forward with programs that balance human needs with sustaining the health of our environment. A new survey of 891 of the country's colleges and universities demonstrates how these important learning centers are implementing green programs in everything from energy and water conservation to procurement and landscaping. Responses to the survey included those from presidents, provosts, chiefs of administration and operations. From the survey results, the National Wildlife Federation has devised a report card on national campus environmental performance showing areas in which leadership is strong as well as activities and programs that need more emphasis. The grades are promising and provide a valuable tool for facilitating positive change.

	Report Card Highlights	*
	Energy efficiency, conservation and renewable energy	
0	Water efficiency upgrades	
	Environmental Lessons in the C+ Classroom	
	Landscaping B-	
0	Transportation C-	
*Grades ties. For a veyed mu	reflect overall results from 891 U.S. colleges and universia category to receive an A, 60 percent of campuses surst have activities related to that category in place.	



Energy and Water Conservation

As our nation struggles to find a workable balance between people and nature, colleges and universities continue to demonstrate positive and practical solutions to the energy debate through conservation and efficiency. Indeed, those who frame the energy issue with a heavy-handed emphasis on simply increasing fossil fuel supplies should take heed. America's campuses are already well embarked on an alternate path that emphasizes conservation and efficiency. Nearly a quarter meet at least some of their energy needs from renewable sources and 12 percent power at least part of their vehicles with alternative fuels. Respondents cited a number of innovative sources for energy including

waste heat, solar, and geothermal energy. And almost all have programs in place or in the works to increase the efficiency of lighting, heating, ventilation and air conditioning systems. Additionally, more than half the schools have developed efficiency design codes for new or existing buildings. Taken together, these initiatives represent crucial steps toward a cleaner and more sustainable energy future. Good practices for water conservation and efficiency are also widely embraced by campuses. Seventy-two percent of respondents report they have installed efficient toilets, showerheads, and faucets and that they re-circulate water. A few campuses even report using recycled water for campus landscapes.



Recycling and Waste Reduction

Recycling boasts the highest activity levels of any issue covered in the survey. Perhaps not surprisingly, more campuses recycle aluminum and various grades of paper than other materials. Almost half of all campuses also recycle glass, plastic, construction materials and compost food scraps. Two in ten campuses report they recycle 40 percent or more of their waste, and five percent of campuses report they recycle between 70 and 100 percent of their municipal solid waste.

To ensure there are markets for the materials recycled, 49 percent of campuses have programs in place to encourage

environmentally sound purchasing.

Beyond recycling materials, campuses are also working to reduce the need for recycling by reducing consumption and waste. For instance, 69 percent have programs in place to reduce the need for paper hard copies; 55 percent have materials exchange programs for computers, furniture, office supplies and lab equipment; and 43 percent encourage lab courses to implement micro-scale experiments that will consume milliliters rather than liters. When all is said and done, however, on average more than 70 percent of campus municipal solid waste still ends up in landfills.



Reducing congestion and pollution associated with travel to and from colleges and universities is one of the biggest opportunities campuses have to improve community relations and air quality. At many thousands of dollars per space, reducing the need for new parking is an added incentive. Yet, transportation management remains largely untapped territory on U.S. campuses. While a majority of campuses report they offer adequate bicycle racks, key initiatives for reducing single occupant vehicles such as discounted bus passes for students, faculty, or staff, carpooling programs, and incentives not to drive alone such as emergency rides home, are practiced by fewer than 25 percent of campuses.

Environmental Lessons in the Classroom

Trends in curricula are mixed. On the one hand, half the schools surveyed have programs supporting their faculty's professional development on environmental topics and 43 percent offer major or minor programs in environmental studies.

On the other hand, many students may graduate without achieving basic environmental literacy. While environmental courses are integrated into many sciences and humanities programs, only eight percent of campuses require all students to take environmental studies courses regardless of major. Certain professions in which environmental literacy is crucial, such as engineering and education, benefit only modestly from environmental training at the undergraduate level. Only 12 percent of engineering and 11 percent of education programs, for example, currently offer undergraduate environmental courses. This contrasts with 68 percent of biology departments and 33 percent of political science programs.

Survey Highlights

America's colleges and universities are moving in the right direction when it comes to balancing the needs of people with the environment. These key results illustrate some encouraging news as well as areas in need of improvement.

Most Surprising effort, despite the odds:

Renewable energy

Strongest campus environmental program:

Recycling

Most popular transportation strategy:

▶ Bike racks

Biggest surprise:

Number of campuses requiring all students to take an environmental course

Most popular energy strategy:

► Lighting retrofits (high-efficiency light bulbs)

Areas campuses are most likely to focus on in the future:

▶ Reducing solid waste, environmentally preferable purchasing, energy and water conservation and efficiency, design of new buildings

Area where most improvement is needed:

Ensuring graduates, regardless of major, are environmentally aware and literate



Landscapes for People and Wildlife

ampus landscapes are excellent places to put ecological principles into practice. Conserving water by planting locally adapted, native plants; limiting applications of pesticides; providing food, water, and shelter for songbirds and butterflies; and restoring degraded habitats are just a few of the methods campuses are using. The most common of such programs, practiced by 60 percent of campuses surveyed, is integrated pest management (IPM). IPM minimizes applications of pesticides and herbicides through careful choice and location of plants, natural insect and disease control, and ongoing monitoring. Half of

campuses report they plant native trees and shrubs, and 37 provide food and shelter for wildlife. Another 36 percent of campuses are working to restore degraded wetlands and other habitat near or on campus grounds, creating attractive stopping grounds for migrating birds throughout the year. They also provide areas for students to study ecological systems in action.

