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A Plan to Improve Roads & Reduce Congestion | Marketing Healthier Foods to Kids
Caring for Both Mind and Body | Wetland Restoration of Coastal Louisiana

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THE NATIONAL ACADEMIES

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Page 1: (from top) Participants at the first annual conference of the African Science Academy Development Initiative, held in Nairobi, Kenya, November 2005, photo by Vaneé Vines; a working group discussion during the third annual conference of the National Academies Keck *Futures Initiative*, held last November in Irvine, Calif., photo by Paul R. Kennedy

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Foreign-Born Researchers Are Key to U.S. Prosperity and Security

I would like to use this space to comment on what I see as a deeply troubling change in public attitude. Last fall I testified to the House Judiciary Committee's subcommittee responsible for immigration issues. The subject was foreign-born students, especially in the physical sciences and engineering. I presented to the panel a few undisputed facts:

- Between 1980 and 2000, the percentage of Ph.D. scientists and engineers employed in the United States who were born abroad increased from 24 percent to 37 percent.
- The current percentage of foreign-born Ph.D. students in engineering is close to 60 percent.
- One-fourth of the engineering faculty at U.S. universities was born abroad.
- Between 1990 and 2004, over one-third of the U.S. scientists who received Nobel Prizes were foreign born.

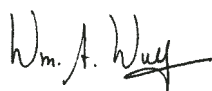
To me these facts suggest that the United States has been skimming the best and brightest from around the world — and that much of the prosperity and security we enjoy today is the result of having access to that incredible talent pool.

But reading between the lines of their questions, it seemed that the majority of the subcommittee members present had a completely different take — namely that every foreign student is a potential spy and, as one congressman explicitly said, the U.S. would be better off if there were no foreign students, since that would create room for all the U.S. students who want to be scientists and engineers.

I was stunned. What would our country be like today if this had been the prevailing attitude in years past? Fifty years ago many of our nation's scientific leaders came from Europe. They included famous names like Einstein, Fermi, and Teller — without whom we might not have been the first to build the atomic bomb; von Braun — without whom we would not have gone to the moon; and von Neumann — without whom we might not be leaders in computing and information technology.

Today, it isn't just Europeans who contribute to our successes. Our leading scientific minds have names like Praveen Chaudhari, who was born in India and now directs the Brookhaven National Laboratory; C.N. Yang, a Nobel Prize winning physicist born in China; and Elias Zerhouni, director of the National Institutes of Health who was born in Algeria.

Secretary of State Condoleezza Rice recently gave a speech in which she pledged to make the United States more “welcoming” to citizens of other nations. I sincerely hope she succeeds. But I remain concerned that unwise policies regarding foreign-born students and scholars may irreparably damage our own science and engineering capacity. You can read my complete Sept. 15, 2005, testimony by visiting <www.nae.edu>.



WM. A. WULF

President, National Academy of Engineering



TIME FOR A Change



Marketing Healthier Foods to Kids

Kids in the United States collectively wield \$200 billion in spending money annually, so it's understandable that food and beverage manufacturers and restaurant companies spend billions of their own dollars each year marketing directly to America's children and youth. High-calorie foods and beverages are among the top 10 items young consumers buy most frequently. Moreover, kids influence an estimated \$500 billion of their parents' purchases, as anyone who has heard the wheedling of an 8-year-old in a supermarket cereal aisle can confirm.

With the proliferation of food and beverage products and marketing aimed at kids in recent years, public concern has grown about the extent to which friendly cartoon characters, product-focused games, and other persuasive tactics are contributing to the rise in childhood obesity. The issue has been hotly debated, with some decrying the popular *SpongeBob SquarePants* for promoting junk food, and others pointing to physical inactivity, not eating habits, as the major culprit behind the obesity spike.

Now, however, a committee of experts convened by the Institute of Medicine has

announced that concerns about the influence of marketing on children's dietary patterns and weight are backed up by scientific evidence. With the evidence in hand, the committee said, it's time for a major turnaround in the types of foods and beverages marketed to kids and how they're promoted.

After analyzing the results of more than 120 studies, the committee determined that TV advertising influences kids under age 12 to ask for and consume particular products and brands. And because the majority of foods, beverages, and meals pitched to children are high-calorie, low-nutrient offerings, these are the types of products they desire.

There is no study that definitively rules out every other possible factor that could contribute to weight gain, so the committee's report stops short of saying that there is a direct cause-and-effect relationship between viewing television ads and childhood obesity. Even so, the collective evidence clearly indicates that there is a strong association — especially for children ages 2 through 11 — and it's sufficient to justify significant changes. Future research also needs to look beyond TV ads because marketing strategies now employ many other ways of reaching kids, such as Internet ads, pitches incorporated into games, and product placements in various media.

"We can't argue anymore about whether marketing influences children's diets and puts their long-term health at risk; it clearly does," said committee chair Michael McGinnis.

To spur a society-wide shift from low-nutrient, high-calorie items to healthier fare, the committee called on the food, beverage, and restaurant industries to redirect their creativity and resources to develop

offerings that are higher in nutrients and lower in fat, salt, added sugars, and calories and to make them just as appealing to children as their current products. Already, several companies have introduced new healthy lines of products that the committee would like to see expanded.

Voluntary efforts should be encouraged, and the government should pursue policy



initiatives such as awards, tax incentives, and other inducements. But if voluntary efforts fail to achieve a substantial shift, Congress should consider legislation to mandate changes in food and beverage advertising on both broadcast and cable television.

But changes cannot rest on industry's shoulders alone. To help families better understand nutrition and how to make healthy choices, the federal government should partner with the private sector to roll out a national campaign about healthful diets that employs all the promotional techniques that help make products and brands popular. — *Christine Stencel*

■ **Food Marketing to Children and Youth: Threat or Opportunity?** Committee on Food Marketing and the Diets of Children and Youth, Food and Nutrition Board and Board on Children, Youth, and Families, Institute of Medicine (2005, approx. 500 pp.; ISBN 0-309-09713-4; available from the National Academies Press, tel. 1-800-624-6242; \$54.95 plus \$4.50 shipping for single copies; also on the Internet at <books.nap.edu/catalog/11514.html>).

The committee was chaired by **J. Michael McGinnis**, senior scholar, Institute of Medicine. The study was funded by the U.S. Centers for Disease Control and Prevention.

