

Where Do All Those iPod Profits Go?

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When we think about globalization, we often imagine a simple transfer of jobs from one country to another: cars made in Osaka rather than Detroit, or jeans made in Guangzhou instead of San Francisco. But this view of globalization is too simple. According to business scholars Greg Linden, Jason Dedrick, and Kenneth Kraemer, it's more useful to look at a product like the iPod: a little bundle of techno-wonder assembled, piece by piece, in factories around the world. In their new paper, "Innovation and Job Creation in a Global Economy: The Case of Apple's iPod," published in the *Journal of International Commerce and Economics*, they break the iPod manufacturing process down, figuring out who makes money and where they live.

Because Apple, understandably, isn't sharing its iPod secrets, Linden et. al. have to do a fair bit of guesstimating, drawing on publicly available information about wages, jobs, and component prices. Still, their careful analysis paints a picture in broad strokes. They estimate that the iPod produces about 14,000 jobs in the U.S., and about 27,000 overseas; predictably, most of those jobs are in China (about 12,000), followed by the Philippines, Japan, Korea, and a host of other countries. Looking at jobs, it seems that American workers are only reaping one-third of the harvest. From the point of view of wages, of course, things look different. "We estimated that workers received over \$1 billion in earnings from iPod-related jobs in 2006," the authors say. "Of this total, nearly \$750 million went to U.S. workers and about \$320 million, less than half as much, to workers outside the United States." The bulk of those U.S. wages went to highly paid engineers, corporate executives, and administrators; the rest went to retail employees. In terms of revenue, the U.S. wins out.

In its outlines, there's not much that's too surprising about this picture: It's precisely because globalization benefits educated Americans while outsourcing less-skilled jobs that our politicians talk about a disappearing middle class. And yet looking at globalization on a per-product basis is revealing. An iPod, which is a perfectly unremarkable object nowadays, contains an extraordinary number of precision-made components. Some are basic (capacitors), some are cutting-edge (displays), and others are less tangible, but still decisive (design and systems integration). The skills, facilities, and supplies involved are spread around the globe, and the largesse of the iPod value chain can move from one place to another very quickly. (Just think, the authors suggest, of the jobs lost and gained when Apple switched from small portable hard drives to solid state memory chips.) Sometimes globalization is, as it's often portrayed, actually a simple competition between the products of two nations: American and Japanese cars, or call centers in Birmingham versus ones in Bombay. But just as often, it's about dizzyingly complex, integrative products that, in the end, can *only* be created on a global scale. In fact, the innovative products that we hope will drive American growth are exactly the ones that will require the skills of workers from around the world. Innovation isn't necessarily a cure for globalization's ills, because the two go hand-in-hand.