Max Russell had always been a conscientious student, but when his father died during his junior year of high school, he had to take on a 25-hour-per-week job to help his family pay the bills. The gig inevitably ate into the time he spent on homework, and Russell’s G.P.A. plummeted from 3.5 to 2.5, which complicated his ability to get the aid he needed to attend a four-year college. So he ended up at Ivy Tech Community College in Indianapolis. Last year, after finally qualifying for student loans and cobbling together some grant money, he transferred to Purdue University, one of the state’s top public schools.

At Purdue, Russell reconnected with Christopher Bosma, a friend from high school. Bosma’s family was considerably wealthier, but his entire tuition was free — as will be medical-school costs. An outstanding high-school student, he received a prestigious merit scholarship that covered both. Russell told me that he believed the two friends are about “equivalent in intelligence” but acknowledged that Bosma studied much harder in high school. He was unusually driven, he said, but it probably didn’t hurt that Bosma had the luxury of not having to help support his family.

Over the years, many state-university systems — and even states themselves — have shifted more of their financial aid away from students who need it toward those whose résumés merit it. The share of state aid that’s not based on need has nearly tripled in the last two decades, to 29 percent per full-time student in 2010-11. The stated rationale, of course, is that merit scholarships motivate high-school achievement and keep talented students in state. The consequence, however, is that more aid is helping kids who need it less. Merit metrics like SAT scores tend to closely correlate with family income; about 1 in 5 students from households with income over $250,000 receives merit aid from his or her school. For families making less than $30,000, it’s 1 in 10.

Schools don’t seem to mind. After years of state-funding cuts, many recognize that wealthy students can bring in more money even after getting a discount. Raising the tuition and then offering a 25 percent scholarship to four wealthier kids who might otherwise have gone to private school generates more revenue than giving a free ride to one who truly needs it. Incidentally, enticing these students also helps boost a school’s rankings. “The U.S. News
rankings are based largely on the student inputs,” said Donald Heller, dean of Michigan State University’s College of Education. “The public universities in general, and the land grants in particular, are moving away from their historical mission to serve a broad swath of families across the state.”

This is obviously troubling for the students who need help, but it is also bad for the state economies that public colleges are supported by and are supposed to help advance. While merit aid sounds like an effective way to combat brain drain, there is no conclusive evidence that it works. One recent study by economists at Cornell and the University of Chicago found that “nearly all” of the spending on state merit-based scholarships had little effect on keeping students in state after they graduated. Merit aid may not even be a good deal for those who earn it. A recent study by researchers at Harvard Kennedy School looked at a scholarship program in Massachusetts in which high-scoring students get tuition waivers at in-state public colleges. It found that taking the scholarship actually reduced a student’s likelihood of graduating because they ended up at a school with a completion rate lower than one of the other schools they could have gone to. Peer effects matter, it turns out. The long-term costs of going to school among those who are more likely to drop out could outweigh the upfront benefits of a cheap education.

Financial aid, however, has a hugely positive impact on whether low-income students graduate. Among needier kids, the six-year graduation rate is 45 percent when grants cover under a quarter of college costs versus 68 percent when they cover more than three-quarters, according to Mark Kantrowitz, the publisher at Edvisors.com, a network of college-planning Web sites. If you look at comparable stats for high-income students, the amount of aid makes almost no difference. Their graduation rates are around 78 percent either way.

The share of Americans with college degrees has risen significantly in the last few decades, but almost all of the growth has been among children of wealthier families. The share of 24-year-olds from families in the top-income quartile who hold college degrees rose from about 40 percent in 1970 to 70 percent in 2011. The share from the bottom quartile, however, remained pretty flat, edging up to 10 percent from 6 percent, according to Tom Mortenson, a higher-education policy analyst with Postsecondary Education Opportunity. These graduation rates also matter. Not only is the gap between the earnings (and employability) of college grads versus high-school grads widening, but an increasing amount of research shows that having a higher density of college-educated workers boosts wages of even those around them without college degrees. Economists refer to the ripple
effect as the “positive externalities” of higher education.

By devoting more aid dollars to the likely college students rather than to more marginal ones, states are limiting the overall pool of residents who will be able to obtain college-level skills. Perhaps just as important, they are also limiting the economic prospects of their entire populations. The institutions that try to maintain their commitment to needy students like Russell, even in the face of state-budget cuts, recognize that extending access to college isn’t just about altruism. It’s about investing in your future tax base. And that’s thinking outside the box.

*Catherine Rampell is an economics reporter at The Times. Adam Davidson is off this week.*