Companies that pay employees different wages for the same work may wind up getting less than they bargained for.

That’s the takeaway of new research examining the impact of two-tier wage systems, where firms hire new workers to do the same work as veterans, but for less pay. General Motors Co., Ford Motor Co. and Chrysler Group LLC have taken this approach in recent years to cut costs and boost profits. But a new paper from researchers at Indiana University, the University of Pittsburgh and University of Zurich finds those strategies have a hidden cost.

Researchers found that lower-paid workers scale back their efforts in two-tier systems. Surprisingly, veteran workers also don’t work as hard, even as they continue to receive higher wages—a sign that they, too, feel the policy is unfair.

“It’s a social norm that’s being violated there,” said Jason Brown, an assistant professor of accounting at Indiana University and a co-author of the study, published in the journal the Accounting Review.

Researchers conducted a role-playing experiment in which participants represented either a company or a worker. At first, a subset of workers was randomly assigned to companies; later, a
new group of workers entered the fray too and firms could opt to pay them less. Workers were then asked to rate the effort they would put into the job.

The new lower-paid workers rated their planned effort 20% lower than did new workers whose firms opted to pay them the original wages. When a company employed both highly paid veteran workers and new ones who earned less, the older workers’ projected effort was 18% less than when all workers were paid the same.

In the real world, that reduced commitment to work can manifest in late arrivals to work or slower operation on a production line. More concerning, said Mr. Brown, is that workers may be less inclined to do anything that’s not in their job description. For example, noticing that a part needs to be changed in a machine, but failing to do anything about it, he said.

The two-tier phenomenon might occur in settings where some jobs are outsourced to lower-paid laborers elsewhere, Mr. Brown said, or in industries where pay is mandated by unions.

In the auto industry, some leaders on both the union and company sides have pushed to end the practice.

“You cannot have two classes of economic packages [for workers] who do the same work,” Fiat Chrysler Automobiles NV Chief Executive Sergio Marchionne said earlier this year at the Detroit auto show. “It’s impossible. It’s almost offensive,” said Mr. Marchionne.

Write to Rachel Feintzeig at rachel.feintzeig@wsj.com