

# Prompt:

Give me scientific data and real-world case studies explaining the Sunk Cost Fallacy. I want peer-reviewed research papers, Nobel-winning theories (if any), or behavioral economics experiments that prove how people irrationally continue investing in failing decisions. Include key statistics, summaries of the studies, and links to original sources if possible. Write in clear, non-academic language suitable for a business presentation.

# Answer:

## Sunk Cost Fallacy: Evidence from Research and Case Studies

Studies consistently show that people cling to past investments even when it's irrational. For example, in a classic experiment participants chose between two weekend trips after buying tickets. Rationally everyone should pick the more enjoyable trip (Wisconsin), but only **46%** did – over half “threw good money after bad” and picked the sunk-cost trip. In a modern neuroeconomics experiment, **47.9%** switched to the inferior option under sunk-cost conditions (vs only 0.8% in control). Similarly, a field study found theater subscribers who paid full price (higher sunk cost) attended more plays (4.11 on average) than those with discounts (~3.3 plays). A meta-analysis of 100 studies reports a **moderate effect** ( $d \approx 0.5$ ) for money-based sunk costs. In short, large surveys and lab tests confirm that *many* people irrationally escalate commitment when prior costs loom large.

*Figure: Behavioral experiments often frame sunk costs clearly. In one design, subjects first choose a preferred trip, then learn they've paid more for the nonpreferred option. Nearly half then “throw good money after bad” by switching to the higher-cost trip.*

- **Classic experiments:** Arkes & Blumer (1985) showed people ignore sunk costs contrary to economic theory – only 46% picked the objectively better option. Thaler's famous “all-you-can-eat” buffet study found diners who were refunded their entry fee ate significantly less pizza, proving that the *unrefunded* fee drove extra consumption. (When sunk costs disappear, so does the over-consumption.)
- **Modern tests:** In a recent decision task, about **48%** of subjects switched to a less enjoyable travel option under sunk-cost pricing, versus **~1%** in a normal condition. Another study showed people are far more likely to stick with a project if **85% of the budget** is already spent, compared to if the same absolute cost (\$7,800) is smaller in

percentage. These stats quantify how much earlier investments bias choices.

- **Fields & meta-analysis:** Both questionnaire and real-money tests (e.g. theater tickets, lab games) confirm the effect. A meta-review of monetary investments found a consistent, medium-sized sunk-cost bias. (Even animal studies find that pigeons sometimes show a “Concorde effect”, though humans and especially leaders are more prone.)

## Nobel Insights and Behavioral Theory

Behavioral economics pioneers explain *why* sunk costs loom so large. **Prospect theory** (Kahneman & Tversky, Nobel 2002) shows people overweight past losses. Arkes & Blumer noted that the sunk cost effect is “well described by prospect theory”: past spending is seen as a loss to avoid, making quitting feel even costlier. Nobel laureate Daniel Kahneman explicitly warns students to **avoid the sunk-cost trap**, saying good scientists must “just make a quick turn” to better ideas rather than cling to past work. Richard Thaler (Nobel 2017) gives vivid examples: in one anecdote a snowstorm illustrates the fallacy – a rational decision would ignore the \$50 ticket (it’s gone), but people often feel compelled to drive through the storm just to “not waste” that sunk cost. As Thaler notes, economics textbooks say to ignore sunk costs, yet people typically do not.

- **Loss aversion:** Under prospect theory, sunk costs are framed as certain losses. People become *risk-seeking* to avoid realizing a loss, so they irrationally double down.
- **Behavioral advice:** Both Kahneman and Thaler emphasize retraining the mind. Kahneman stresses snapping out of a project “just because you began it”. Thaler points out that even economists have to be reminded not to let “sunk cost” influence decisions.

## Real-World Case Studies

- **Concorde (Aerospace):** The Concorde supersonic jet is a textbook example. By 1976 over **\$2.5 billion** had been sunk into development; despite clear losses and low demand, the UK and French governments **kept funding it** solely to justify past spending. This “Concorde fallacy” illustrates how even nations fall prey to sunk costs.
- **Government projects:** In the 1980s the U.S. Tennessee–Tombigbee Waterway had already spent **\$1.1 billion** when lawmakers debated canceling it. Proponents argued termination “at this late stage” would **waste** all already-invested funds. In other words, the huge sunk cost itself became the reason to continue, despite poor cost–benefit logic. (Similar pressures appear in defense and infrastructure: e.g. once a multi-billion-dollar

nuclear plant or war fund is spent, politicians cite past sums to justify carrying on.)

- **Business/R&D:** Firms often persist with weak projects because of prior investment. Industry data (e.g. Spanish firms) show sunk costs are a **key driver** of ongoing R&D commitment. In practice, companies throw more money at a failing product or research program just to recover their sunk cost, delaying termination. Some surveys find managers continuing high-cost projects far longer if large budgets were already spent.
- **Everyday & Tech:** The bias shows up in daily business and tech choices too. For instance, after paying a high fixed fee people use a service more intensively: Singapore studies found drivers with very expensive car permits drove **more** than those who paid less, and diners with fully sunk-all-you-can-eat tickets consume extra meals. In start-ups and IT, teams often “double down” on a software or app even as data suggest a pivot is needed – simply because of time and money already sunk in development (a known cognitive trap).

**Sources:** Peer-reviewed experiments and analyses, Nobel lectures/interviews, and documented cases illustrate these points. All citations link to original research or official publications as noted.