

Transportation Engineering and Safety: Sacrificing the Most Crucial Element of Ethics

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Interdisciplinary Article Summary

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In “Transportation Engineers Are Legally Obligated to Protect the Public. It's Time to Demand They Do So” by Steffen Berr, Berr describes how transportation engineers’ hesitancy to follow certain safety policies can lead to deadly failures. The article starts out with a strong quote to highlight the ignorance that is often presented. When describing the American Society of Civil Engineers’ code of ethics, the most important safety section demands that “engineers: first and foremost, protect the health, safety, and welfare of the public” (Berr, 2021). But, it is immediately underscored that this “has fallen on deaf ears in the transportation profession for far too long” (Berr, 2021). As the article continues, a picture of how the ethics landscape has dramatically improved in the engineering world is painted – as well as how the transportation sector of engineering neglected to make such strides. The article highlights statistics, especially those related to death, and lays out a plan for effectively changing the dangerous pathway that transportation engineers travel down far too often.

Ethics in engineering is important for many reasons, but safety is paramount. The article begins by highlighting a catastrophic failure that occurred in the design of a new Hyatt Regency Hotel which opened in 1981. Two suspended walkways collapsed and 114 people were killed, among many more injured. Berr emphasizes how this led to a new era of safety in engineering design along with a more broad focus on ethics. This is contrasted, however, by a reluctance to follow suit in these changes by the general transportation engineering sector. It is noted that

about 38 thousand Americans lose their lives per year to traffic deaths. While these cannot be placed entirely on the design of roads, intersections, and vehicles by engineers, as many roads are reconstructed and created every year, the numbers are not trending down. Berr excellently contrasts the direction of safety in transportation with the direction of other industries, tasking the reader to “suppose a major dam suffered a catastrophic failure and the resulting flood killed 40,000 Americans, injured several million more, and caused billions of dollars of property damage” (Berr, 2021). This dam example is equivalent to the yearly deaths from traffic occurring in a single event, as with the Hyatt Regency Hotel disaster.

To solve this problem, or at least begin heading in the right direction, Berr argues that transportation engineers should start by realigning the order that they focus on three main things: efficiency, safety, and aesthetics. This listed order is the way that they are currently considered, but he states that the order should be changed to safety, aesthetics, and efficiency. Of course, putting safety first is the most important part of starting to cure this traffic death epidemic. Berr mentions how countries who employ this ranking of importance, such as the Netherlands and New Zealand, see much lower rates of traffic deaths, often more than nine times better. Obviously, this mass of traffic deaths cannot be cured overnight, but sacrificing efficiency and aesthetics to focus on traffic safety is an important step.

I agree with Berr’s notion that the transportation engineering sector has failed in protecting Americans. I will often note to myself while driving how poorly designed an intersection or piece of roadway seems to be, or if I feel like an intersection has to be a frequent collision causer. While varieties of landscapes can present challenges in creating safe roads in certain situations, far too often the convenience of drivers is the focus, rather than safely getting them from point A to point B. A way that Berr argues this direction can be attained, which I

agree with, is by standardizing certain safety measures in transportation engineering. The transportation engineers of the future must make safety a priority, even if it means sacrificing efficiency in creating the fastest routes.

References

Berr, S. (2021, February 18). *Transportation Engineers Are Legally Obligated to Protect the Public. It's Time to Demand They Do So*. Strong Towns.

<https://www.strongtowns.org/journal/2021/2/17/transportation-engineers-are-legally-obligated-to-protect-the-public-its-time-to-demand-they-do-so>