The Design, Implementation, and Impact of Boston's Big Dig: An Analysis of Political Dynamics and Urban Transformation

Julia Dickinson, 2026

The Central Artery/Third Harbor Tunnel Project, more commonly known as the Big Dig, was the most expensive highway infrastructure project in U.S. history. The official name of the project described what the project included: moving the central artery of Boston (I-93) from an elevated highway structure into a tunnel following the same route, and building a third tunnel beneath Boston Harbor—the Ted Williams Tunnel—that extended I-90 out to Boston Logan International Airport. Though the Big Dig is known by locals for the decades of disruption it caused on city streets and endless cost overruns, it is revered by the urban planning community for its engineering innovations and as a success story for repairing a once vibrant downtown urban fabric torn apart by highways.

My research this summer focused on crafting a comprehensive knowledge of the Big Dig, understanding the stakeholders in the Big Dig and their relationships, conducting spatial analyses on how the Big Dig impacted the city, and narrowing my research topic for an honors project in the Department of Government and Legal Studies.

This summer, I was able to conduct primary research in Boston over three weeks. I visited Special Collections and Archives at Northeastern University, which has the largest collection of documents from the Big Dig. In particular, I analyzed documents from Fred Salvucci, Secretary of Transportation under Governor Michael Dukakis; Anthony DiSarcina and Jack Quinlan, both public affairs directors for the Big Dig; Nancy Caruso, a lead community activist in the North End; the Central Artery Environmental Oversight Committee; and the Boston Globe, including interview and research materials for articles;.

I also conducted spatial analyses of the Big Dig and its impacts on nearby neighborhoods. One map contextualizes the Central Artery in a flood plain, explaining the unique engineering challenges of the new tunnel. Another set of maps tracks land use in downtown Boston where the Central Artery went through, with snapshots from 1985, 2005, and 2016. Another series of maps tracks college education rates in each neighborhood of Boston before, during, and after the Big Dig. This is used as a measure of potential gentrification or neighborhood demographic change before, during, and after the Big Dig.

One of three maps on land use change in downtown Boston

In addition to archival research and spatial analysis, I reviewed existing and relevant political science and urban studies literature to contextualize my research. I read Jane Jacobs' *Death and Life of Great American Cities* and Robert Caro's *The Power Broker* on Robert Moses—two fundamental texts on highways and the urban fabric—in addition to *Megaproject Management: Lessons on Risk and Project Management from the Big Dig* by Virginia Greiman, which provided useful project management frameworks concerning the Big Dig and its needs.

Though my research this summer has been largely exploratory, I have decided to narrow the focus of my future research to the role of political narrative in the construction of the Big Dig. The Massachusetts Secretary of Transportation, and the state government in Massachusetts more broadly, had to convince project neighbors, taxpayers, community organizations, and the federal government, among other stakeholders, that the Big Dig was a worthwhile investment. The story the state government told to each stakeholder was different, and these narratives are well recorded in archival materials. As I continue my research, I will investigate these varying political narratives, their success and failure, and their interaction with public opinion and the local print media, like the Boston Globe and neighborhood publications.

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