Joshua P. Howe. Behind the Curve: Science and the Politics of Global Warming. xviii + 290 pp., illus., bibl., index. Seattle: University of Washington Press, 2014. $34.95 (cloth).

There is a real need for a book that carefully and historically outlines how climate change science and politics in the United States developed into its contemporary adversarial, polarized state. Joshua Howe’s ‘Behind the Curve’ provides this, constructing two compelling arguments along the way. First, that the continual re-enforcement of a science-led advocacy and focus on consensus has meant that any contestation about policy inevitably leads to a challenge about science. Second, that the historically uneasy relationship between environmentalists and climate scientists, became aligned with the Democrats in the 1980s in a formation that has created rifts that have stymied climate politics. The Keeling curve diagram of rising carbon dioxide (CO2) concentrations in the atmosphere provides the thread through the book’s chapters with concentrations continuing to rise as the politics of climate change become ever more gridlocked. The unfolding tragedy challenges both science warriors and sceptics with its careful unravelling of the historical contingency of science, actors’ motivations and political interventions that have shaped and re-shaped climate politics throughout the second half of the twentieth century.

The first chapter provides an insightful exploration of the development of climate change science in the Cold War period in particular highlighting the contingent emergence of CO2 research within the context of the International Geophysical Year, the development of computer modelling and the internal politics of atmospheric research budgets, buildings and scientists in the United States. The supersonic transport (SST) controversy sets the stage for the second chapter in which Howe argues that CO2 research benefited from the attention given to atmospheric risks and society-focused climate research by SST. At the same time SST engendered environmentalist angst with science and technology not least because scientists studied environmental problems to find solutions rather than open up broader social contentions. This becomes crucial in chapter three as the emergence of systems science and the first United Nations Conference on the Human Environment invoked the ‘global environment’ as a threatened object of concern and thereby directly politicized the study of global climatic changes. The global environment became a battleground for different interest groups and chapter four highlights the gradual fixing of a science-based approach or what Howe describes as a trust in the ‘forcing function of knowledge.’ Tasked with co-ordinating reports on climate expertise, the National Academy of Sciences and later the American Association for the Advancement of Science, re-enforced scientists’ faith that consensus science might lead to effective climate policy. As Howe points out, however, in the context of the 1970s this was less than straightforward because while scientists gained increased access to federal authorities, interested groups, especially environmentalists, remained cautious of the CO2 argument as the scientists frequently worked in institutions that were deemed to have failed to effectively tackle previous environmental issues. In the 1980s, as chapter five outlines, the networks of science and politics were re-shaped partly through the nuclear winter controversy and partly through Ronald Reagan’s dismissal of environmental concerns. Howe’s analysis is particularly incisive here. Scientists joined the environmentalists and Democrats to form an alliance on issues about energy and defence, but in doing so they actively created a partisan politics and consequential divide between progressive and conservative interests in the United States. Scientific consensus and ideals of neutrality were placed at the mercy of political interests.

The remaining analytical chapters contain less original evidence and while useful for expanding the argument, contribute less to developing our historical understanding. In chapter six, Howe focuses on the international stage, arguing that the emergence of the Intergovernmental Panel on Climate Change again emphasizes consensus science approaches, even as it was equally shaped by geopolitical interests. The political debates that followed this science-led approach are traced in chapter seven, first in the context of the United Nations Framework Convention on Climate Change and then the Kyoto Protocol. While science would be the primary driver for policy, in political terms economic analysis dominated national and international debates at the expense of ethics and equity.

‘Behind the Curve’ therefore provides an accessible historical account of the development of climate change in scientific and political circles in the United States. The book is not written as an in-depth, narrow history of climate science and may feel underwhelming in parts if read as such; neither does it fully sketch out the moral argument (which also has a historical context) that Howe argues is vital to making progress on climate change. But the book deserves a wide audience, both as a guide for students (from the natural sciences to the humanities) to understand the political consequences of these early interactions and contingent co-productions of science and policy, and as required reading for climate scientists, policy-makers and activists who wish to understand how the polarized nature of climate politics in the United States came about.