

Appendix C

Potential Selection Bias in Difference-in-Differences Estimators

Omitted variables are not the only potential source of bias in our estimates of DD coefficients. CHs that have been revised several times due to new information, new scientific data, political pressure, or court cases are not included in our study because they make identification of the economic impact of CH more difficult (i.e., certain parcels may pop in and out of CH rapidly). However, we suspect that these complex CHs are likely to have had a greater impact on land prices than the “simple” CHs that we currently include in our study. Presumably, their imposition of high economic cost is one of the main reasons for “complex” CHs’ unsettled path to finalization.

For example, the originally proposed Canada-lynx CH included 27,530 sq km of commercially managed forest land in Maine. However, for economic reasons, the final CH excluded all of this Maine forest land because of the Maine forestry industry’s (voluntary) conservation strategy for the Canada lynx and the FWS’s desire to “preserve partnerships” with Maine’s forest industry. Then, three years later the FWS published a new “final” Canada-lynx CH that included most of this previously excluded Maine forest land. We would not be surprised if a study of the most recent final Canada-lynx CH uncovered evidence of negative impacts on affected forest land values given that the “new” CH covered land deemed very important to Maine’s forest industry. Therefore, by not including the potentially more expensive CHs like the Canada lynx, our estimates of the DD coefficients μ and ω likely underestimate the actual cost that CH imposes on American land values.