



FIGURE 3.10. Schematic diagram showing fault geometry and activity since the late Oligocene-early Miocene. The fault offset from active Basin and Range deformation is estimated from the elevation of basalt deposits in the Stillwater Range ( $A_f$ ) and depth of the same unit ( $A_h$ ) interpreted from our seismic profiles. The fault offset from the late Oligocene-early Miocene pulse of extension is calculated from the total basin depth interpreted from our gravity results (C), and the depth at which reflections interpreted as coming from volcanoclastic deposits change to reflections interpreted as coming from basin fill deposits (B). Constraints on duration of faulting are provided by isotopic age dating and paleomagnetic rotation of rock units [Hudson et al., 2000; John, 1995].