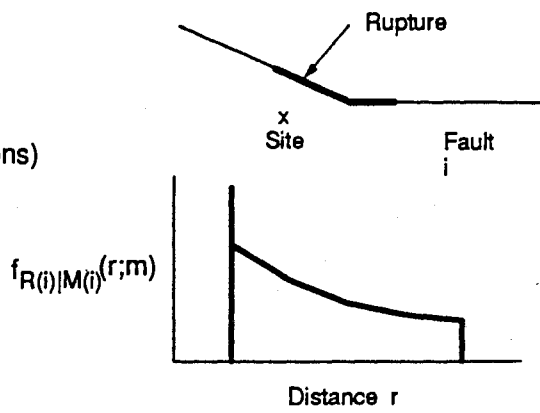
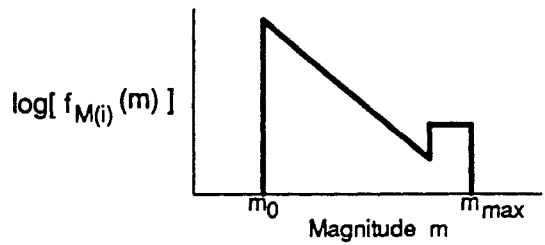


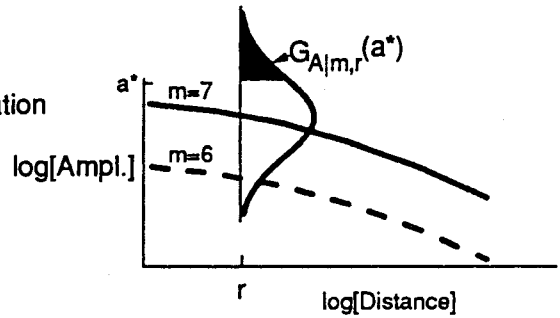
a) Seismic source i
 Earthquake locations in space (and
 magnitude-dependent rupture dimensions)
 lead to a distribution of distance
 $f_{R(i)|M(i)}(r;m)$



b) Magnitude distribution and rate of
 occurrence for source i
 $f_{M(i)}(m), \nu_i$



c) Ground-motion attenuation equation
 $G_{A|m,r}(a)$



d) Probability analysis:
 annual exceedence probability

$$\approx \sum_i \nu_i \int_r \int_m G_{A|m,r}(a^*) f_{M(i)}(m) f_{R(i)|M(i)}(r;m) dm dr$$

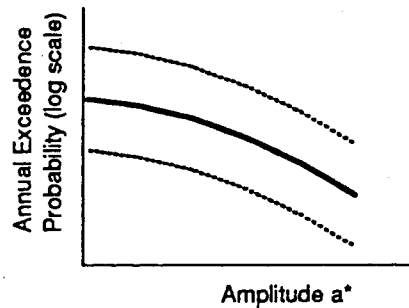


Figure 7-1 Seismic hazard computational model (modified from McGuire and Arabasz, 1990)

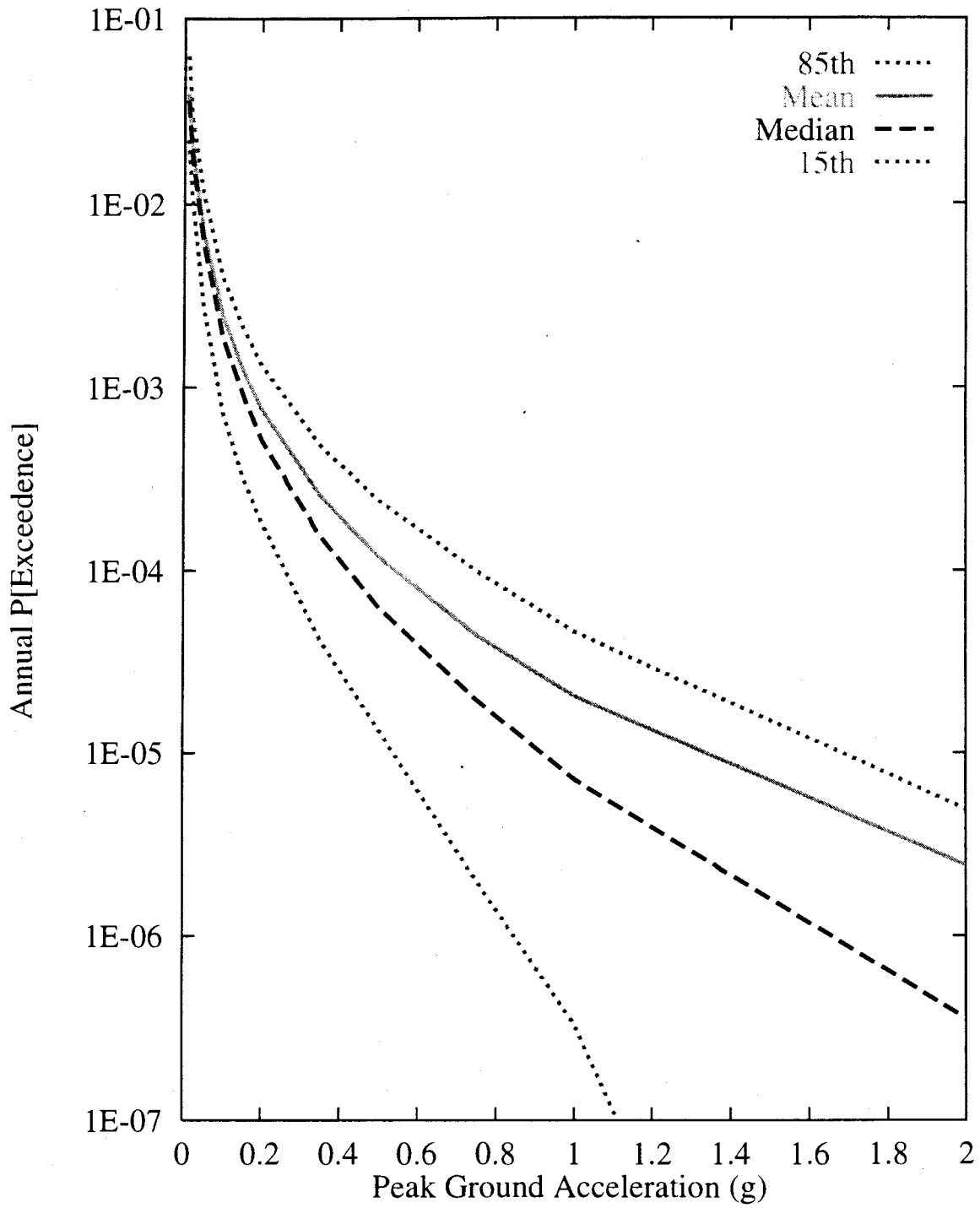


Figure 7-4 Integrated seismic hazard results: summary hazard curves for horizontal PGA