Gel depth

The photographs below depict the effect of gel depth on DNA electrophoresis. Gel thickness has a profound effect on the resolution of smaller fragments. The smaller DNA fragments in the 10 mm thick gel are fuzzy, whereas in the 3 mm thick gel the resolution is sharp throughout the gel. There is also a higher background staining in gels thicker than 5 mm.

Separation of DNA markers in 1% SeaKem® GTG® Agarose gels prepared and run in 1X TBE Buffer.
Lane A: *Hind* III digest of lambda DNA (Boehringer Mannheim); 0.1 µg/lane.
Lane B: *Hae* III digested φX174 DNA (New England Biolabs); 0.5 µg/lane. 20 cm long gels were run at 6 V/cm for 2 hours 15 minutes (10 mm thick gel) and 2 hours 10 minutes (3 mm thick gel).