

# Effect of Adding a Passenger Restriction to an Existing GDL System

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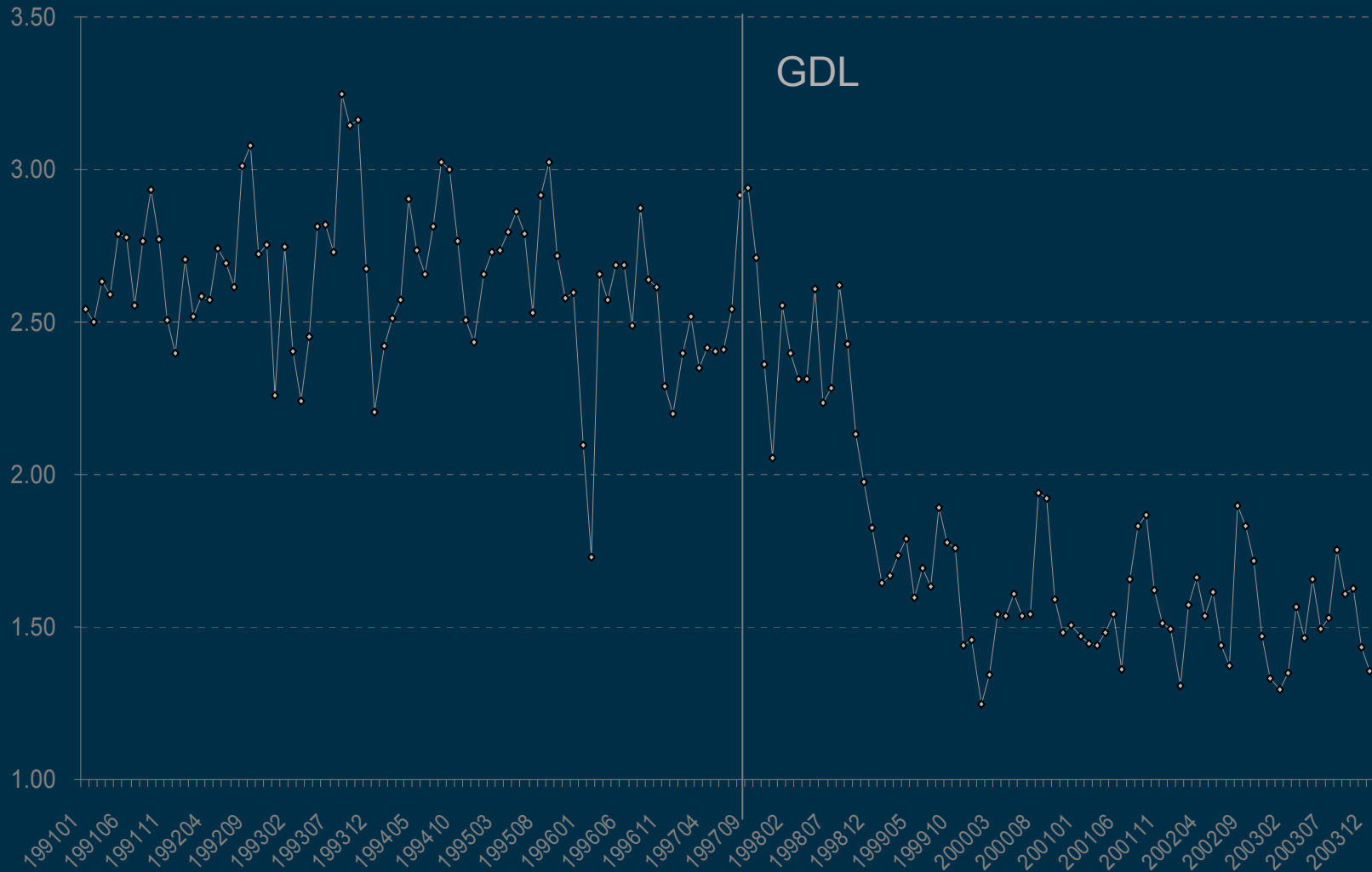
# Background

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- Most passenger restrictions introduced along with other elements
  - Difficult to measure indep. effect
- NC added restriction alone, 5 yrs later

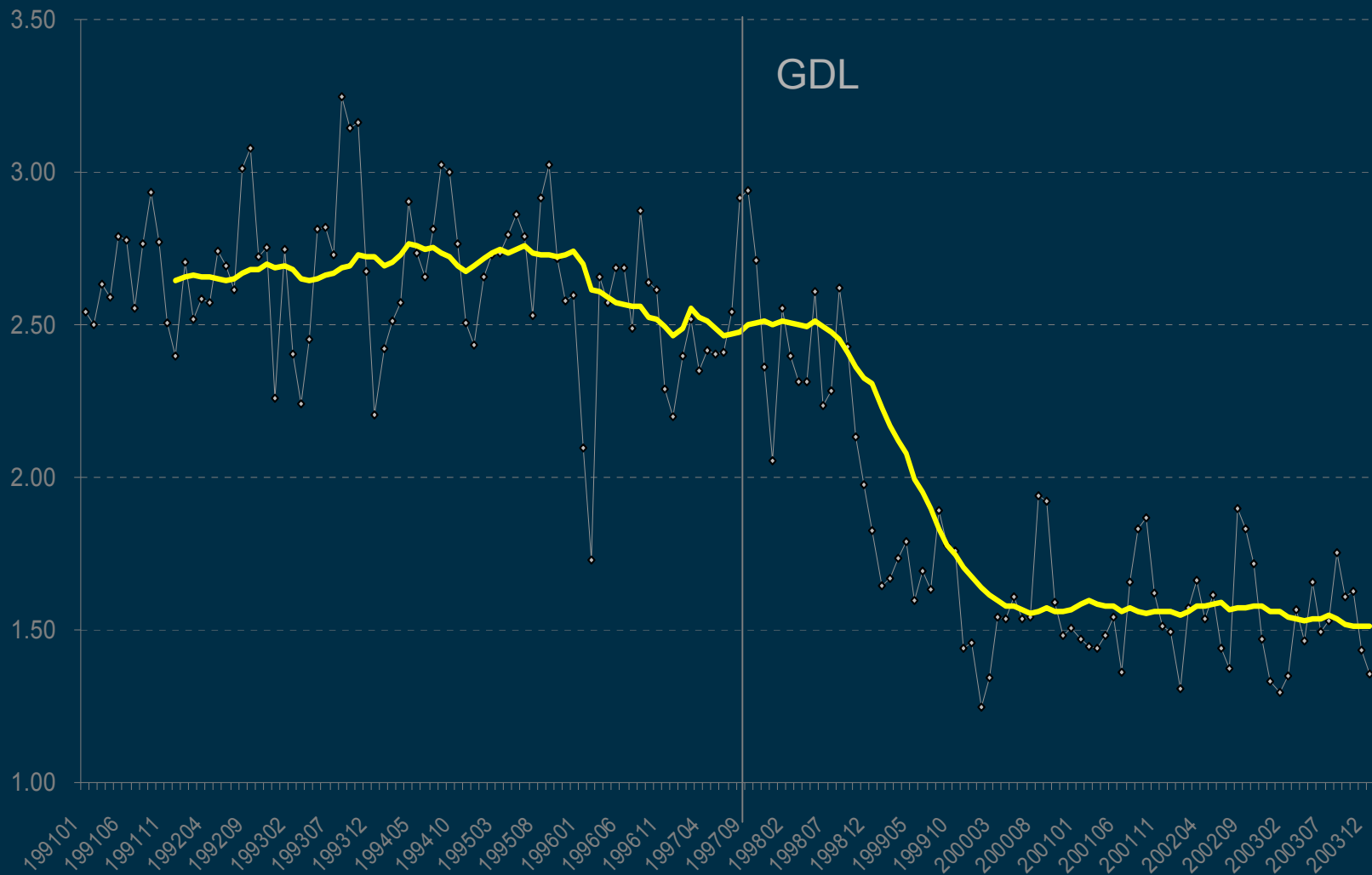


# Crash Rate Ratios for 16 year-olds vs. 25-54 year-olds, NC 1991-2003



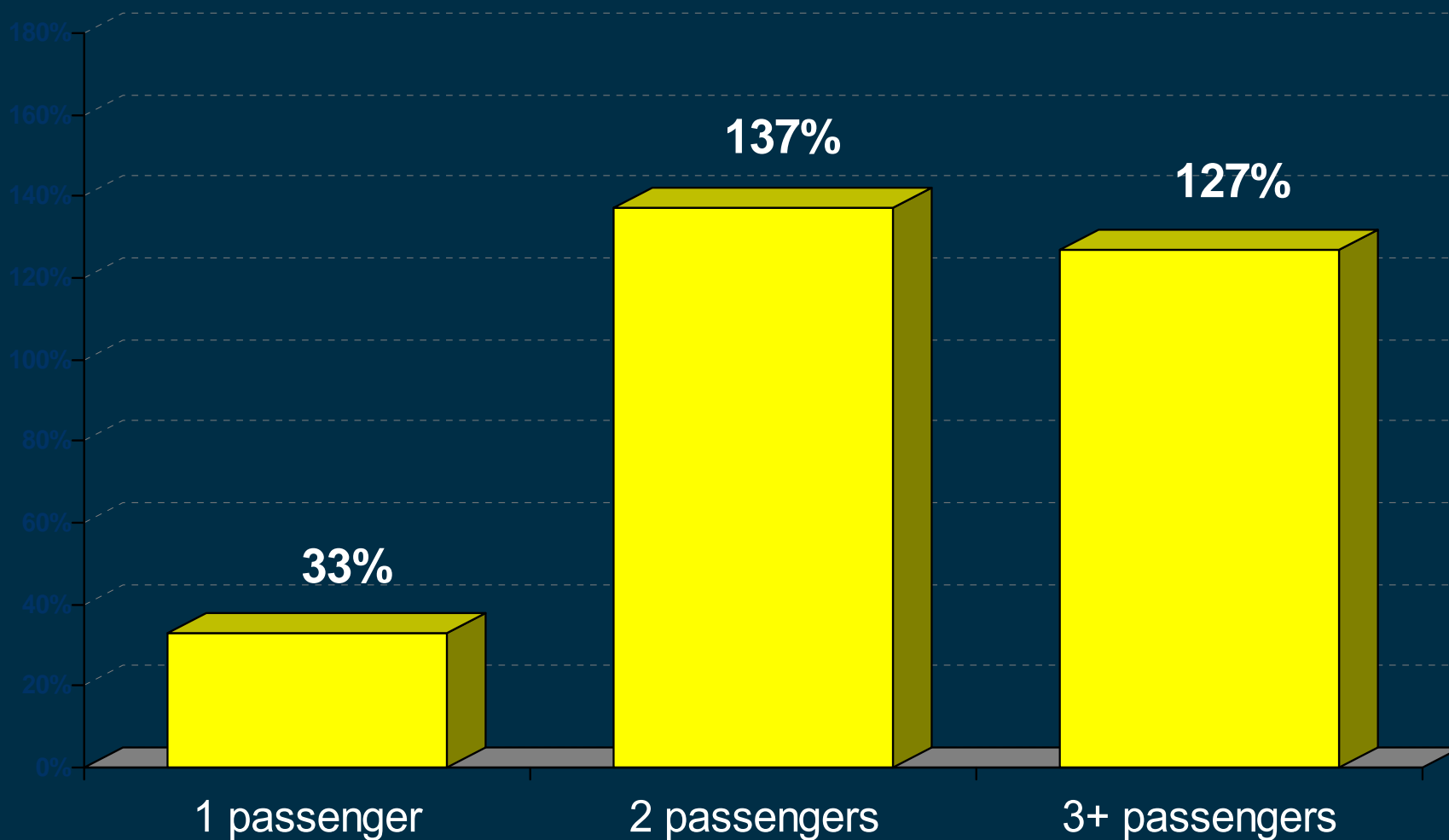


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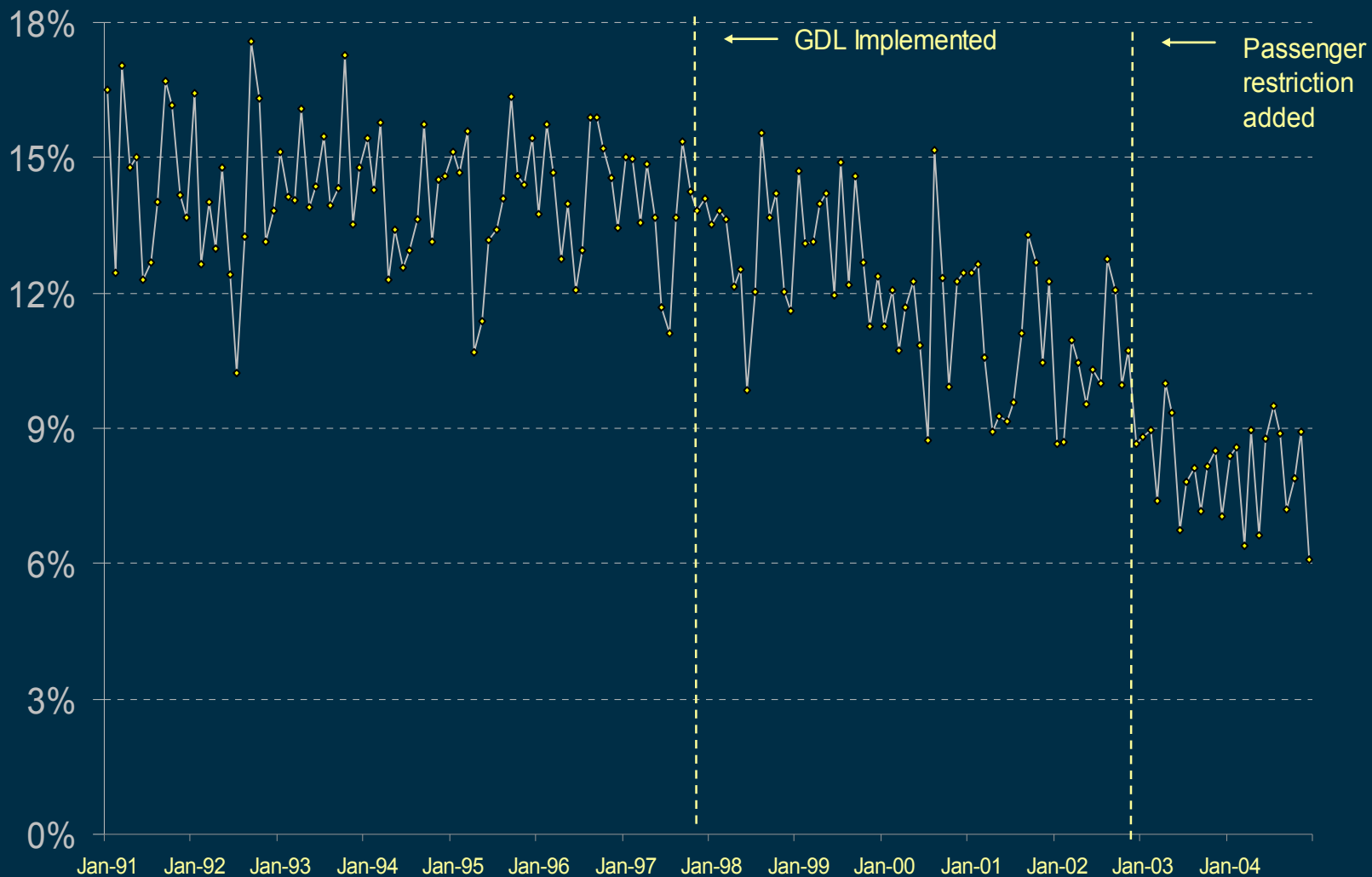


# Increased Fatal/Injury Crash Risk, 16 & 17 Yr-old Intermediate License Drivers by # Teen Passengers



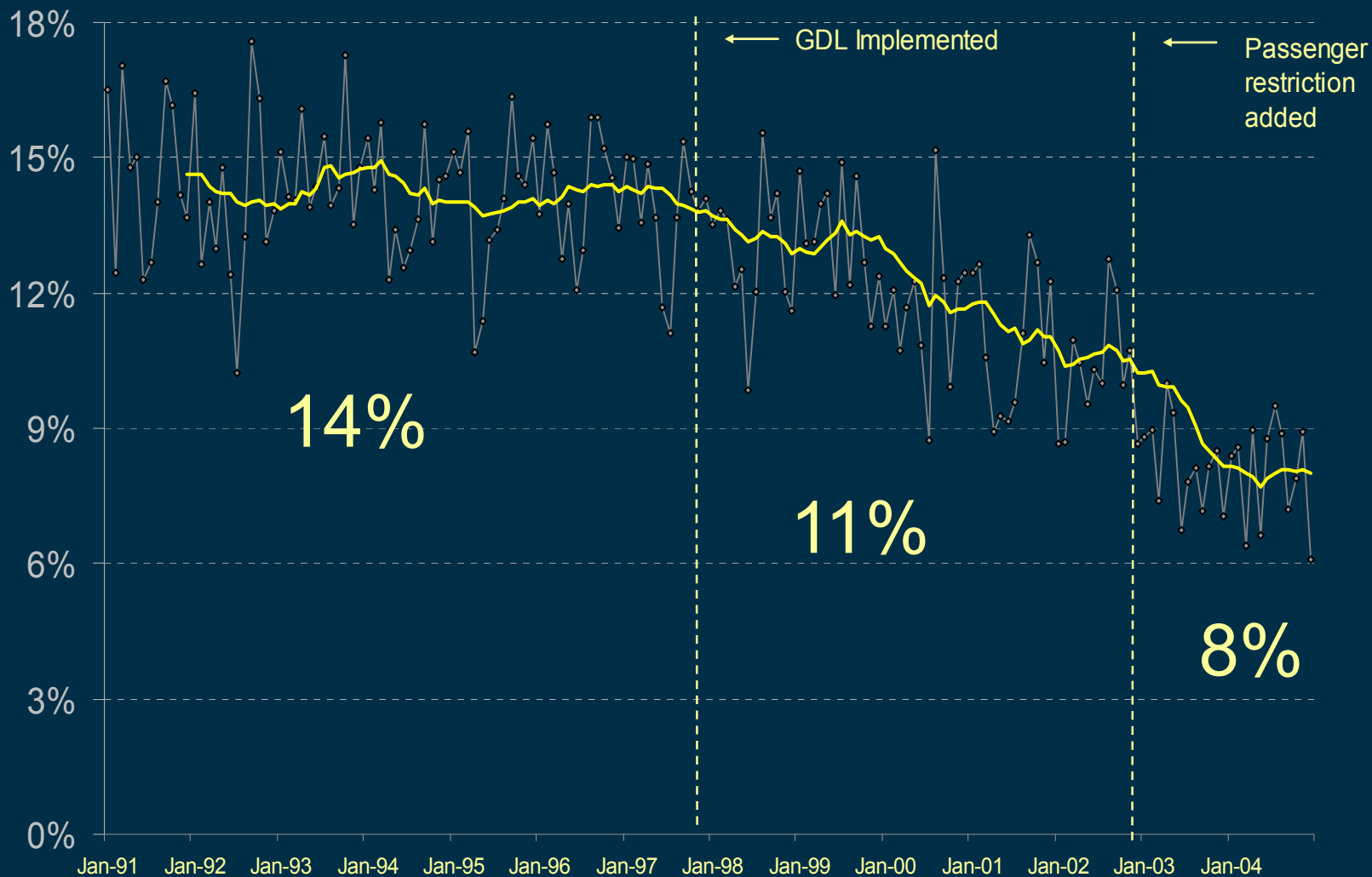


# Percent of 16 year-old crashes involving multiple passengers - NC, 1991-2004





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# Effect sizes:

- **14%** decrease with GDL, before Psgr restr.
  - $\omega = -0.159$ ,  $t = -6.88$ ,  $p < .001$
- **32%** decrease following Psgr. Restr.
  - $\omega = -0.385$ ,  $t = -13.90$ ,  $p < .001$
- Caution, mid-series hard to quantify (never stabilizes, model-fit complications)
- **8% & 15%** decr. among 17-yr-olds (signif.)



