HPack
Reference Set Choice
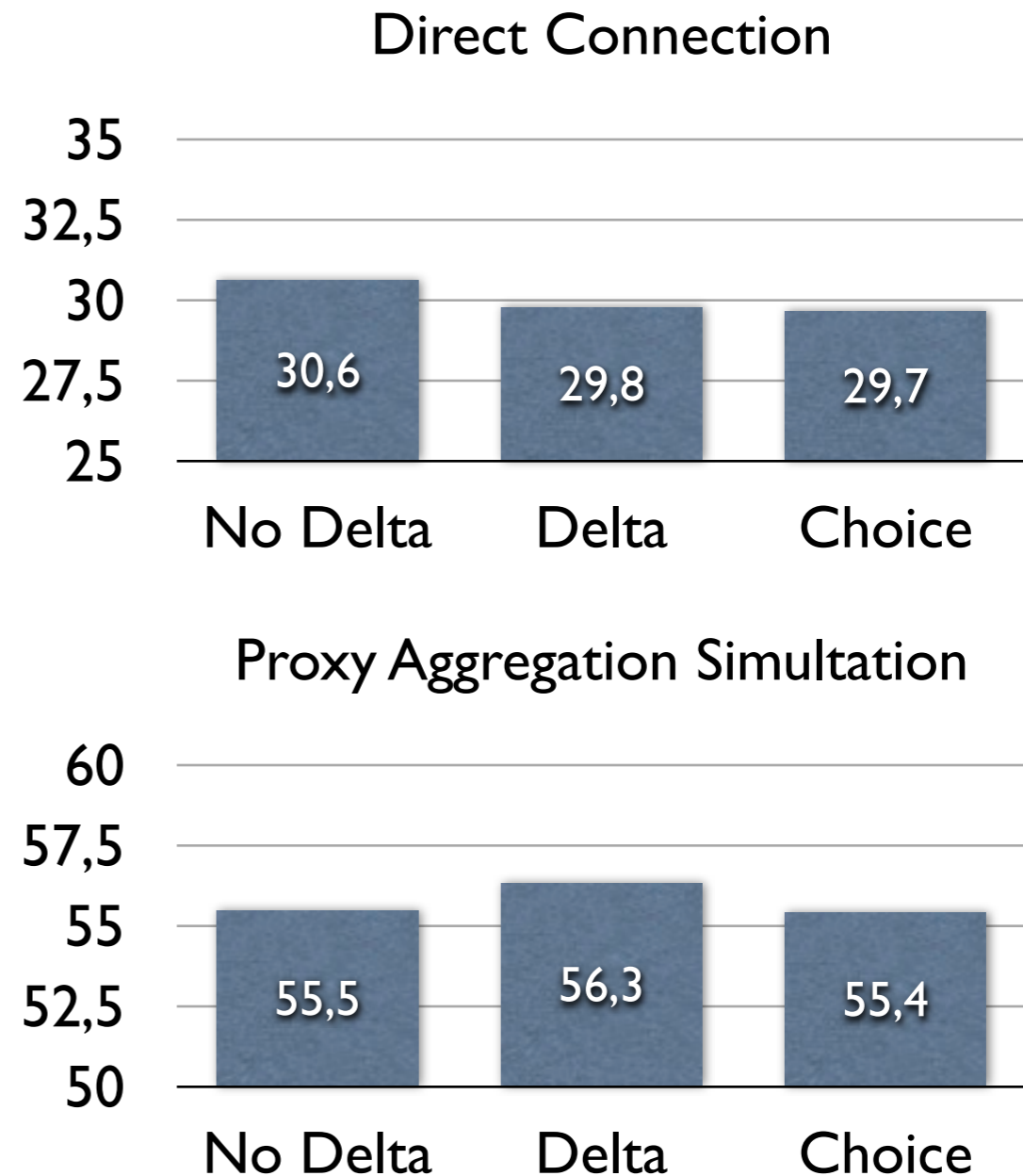
HPack Delta Encoding

- Delta encoding
  - Encode only differences between header sets
  - Useful on requests, less on responses
- Proposal: make delta encoding optional
  - At the header set level

Implementation

- Integrated into header set encoding

- Use index 0

  - Semantic: empty reference set

  - Real indexes shifted by 1

- No measurable compression efficiency impact when using delta encoding

Results

- Testing Conditions

  - `mnot` test suite

  - 4KB buffer

- Results

  - Small improvement for direct connection (~1%)

  - Stronger for proxy-like aggregation (~2%)

Direct Connection

	No Delta	Delta	Choice
	30,6	29,8	29,7

Proxy Aggregation Simultation

	No Delta	Delta	Choice
	55,5	56,3	55,4

Conclusion

- Small change

- Some compaction gain

  - Larger for aggregated connections

- Remove sequential dependance of header sets

  - Allows out-of-order decoding (e.g. when using Minion)