

MAP-21 – Induced Changes to HPMS Pavement Data Reporting

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Introduction

- Review of principal HPMS pavement data items
- Non-MAP-21 changes to HPMS (since reassessment)
- MAP-21 changes to HPMS
- 2012 HPMS pavement data findings
- Note: all changes to requirements in next update of *HPMS Field Manual*



Main HPMS Pavement Data Items– current requirements

- **IRI (MRI):** full extent for all principal arterials & NHS. Sampled on rural minor arterials. 2-yr. cycle. Annual for NHS.
- **Surface Type:** sampled. 2-yr. cycle.
- **Rutting:** sampled. 2-yr. cycle.
- **Faulting:** sampled. 2-yr. cycle.
- **Cracking Length:** sampled. 2-yr. cycle.
- **Cracking Percent:** sampled. 2-yr. cycle.

- Note: sampled functional systems exclude rural minor collectors and rural & urban local.



Overriding Issues

- Data collection frequency
- Data collection extent (including directionality)
- Section length
- Data standards
- QA/QC by FHWA Division Office pavement staff



Non-MAP-21 Changes

- **IRI (MRI):** require 0.10 mile maximum section lengths for all required functional systems & NHS. Shorter sections allowable for route termini, intersection, etc.
- **Cracking Length** (transverse/reflective): now optional reporting– not required.
- **ARNOLD: All Roads Network Of Linear-referenced Data**
 - Due June 15, 2014
 - Includes all public roads
 - Including dual-carriageway network (divided facilities)
- Updated reference to most recent applicable AASHTO and ASTM specifications and standards



MAP-21 Changes

- IRI (MRI): collection/reporting cycle, extent changes.
- Surface Type: extent changes.
- Cracking Percent: extent changes.
- Rutting: extent changes.
- Faulting: extent changes.

- NHS expanded to virtually all Principal Arterials
 - IRI unaffected (already required on all PAS)

Note: final rule-making changes to be incorporated into *HPMS Field Manual*

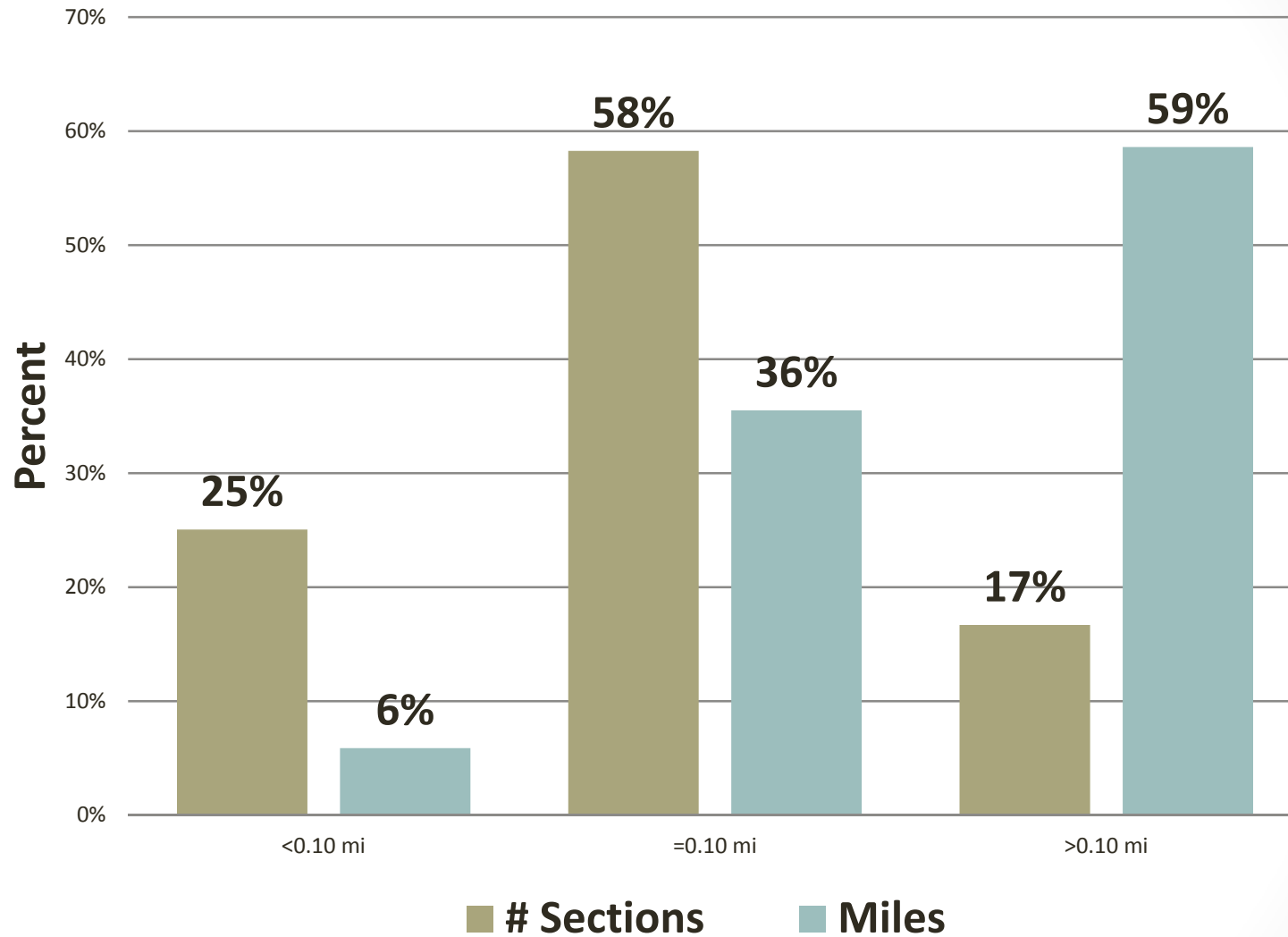


QA/QC Initiative

- FHWA memo to field offices re: HPMS pavement data (8/9/2012)
 - MAP-21: Using HPMS data, report conditions, performance, & investment needs
 - Recent studies indicate significant variation, errors, & omissions
 - FHWA tasked to develop standards & guidance for National Highway Performance Program
 - Involves Division pavement staff to assist in HPMS QA/QC
- Soon-to-be-developed FHWA Pavement Monitoring Guide (PMG)
 - Used in conjunction with *HPMS Field Manual*
 - Best practices, references to standards, etc.

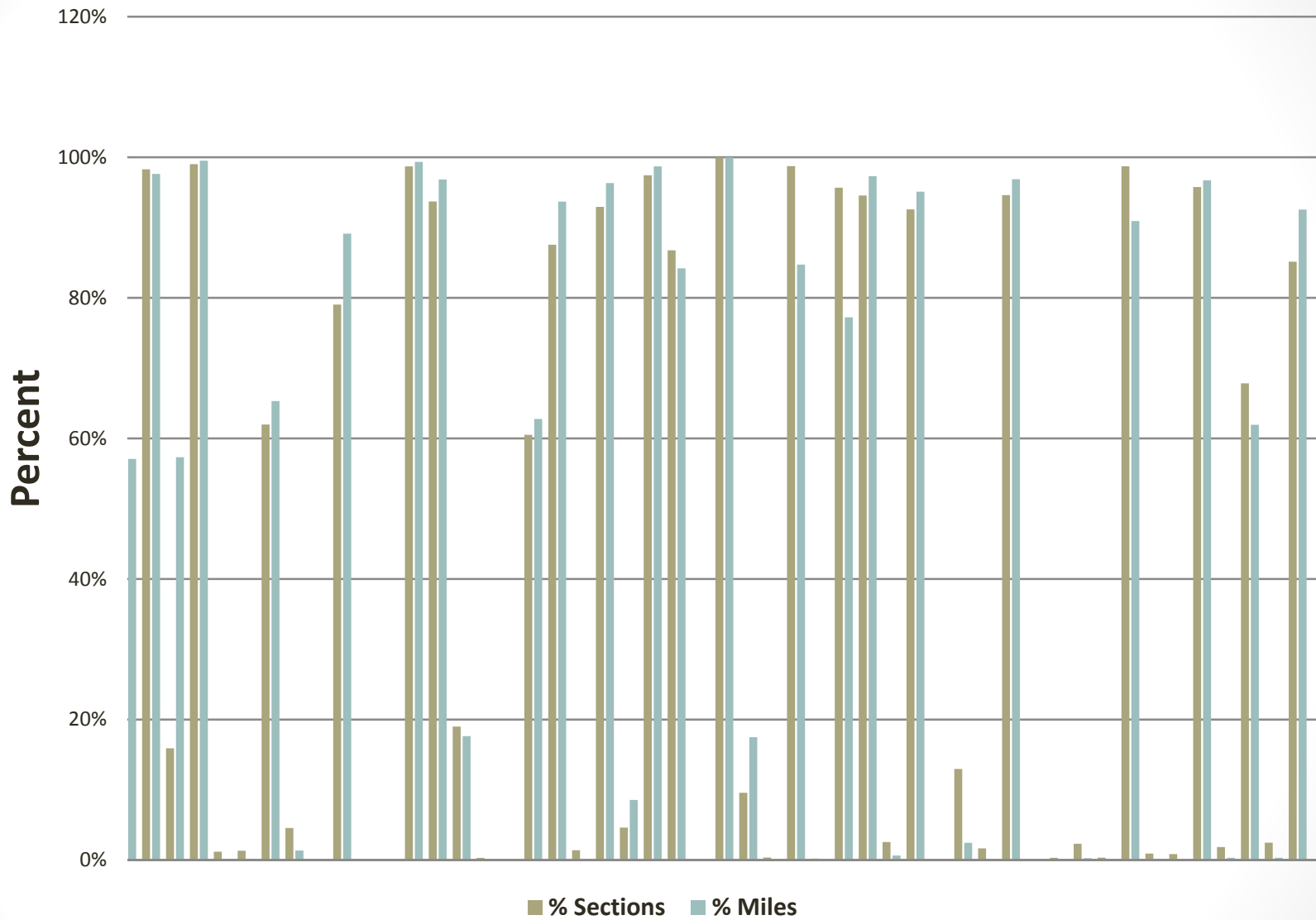


2012 HPMS IRI Sections



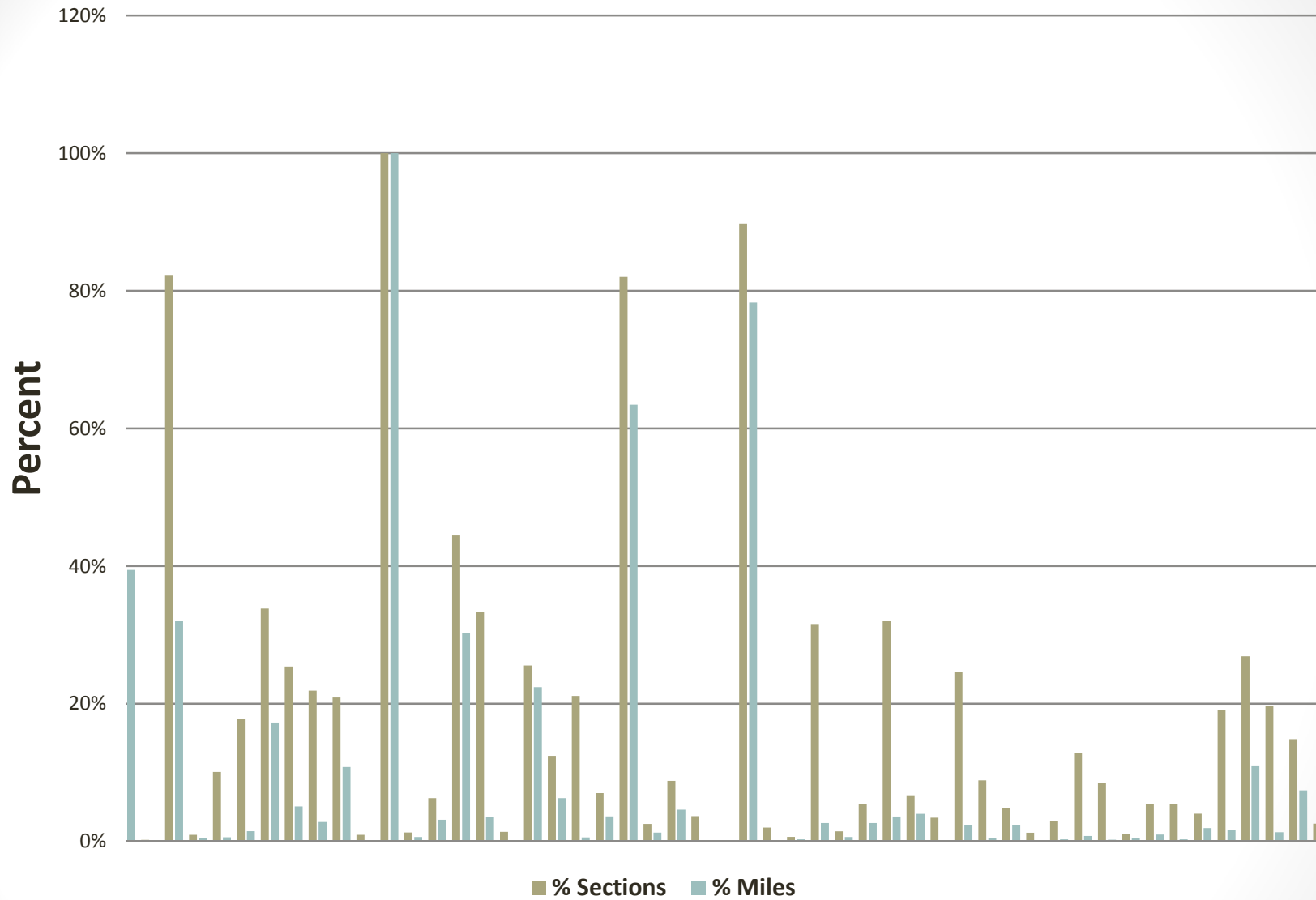
Note: analysis may include data beyond HPMS requirements.

2012 HPMS 0.10 mi IRI Sections



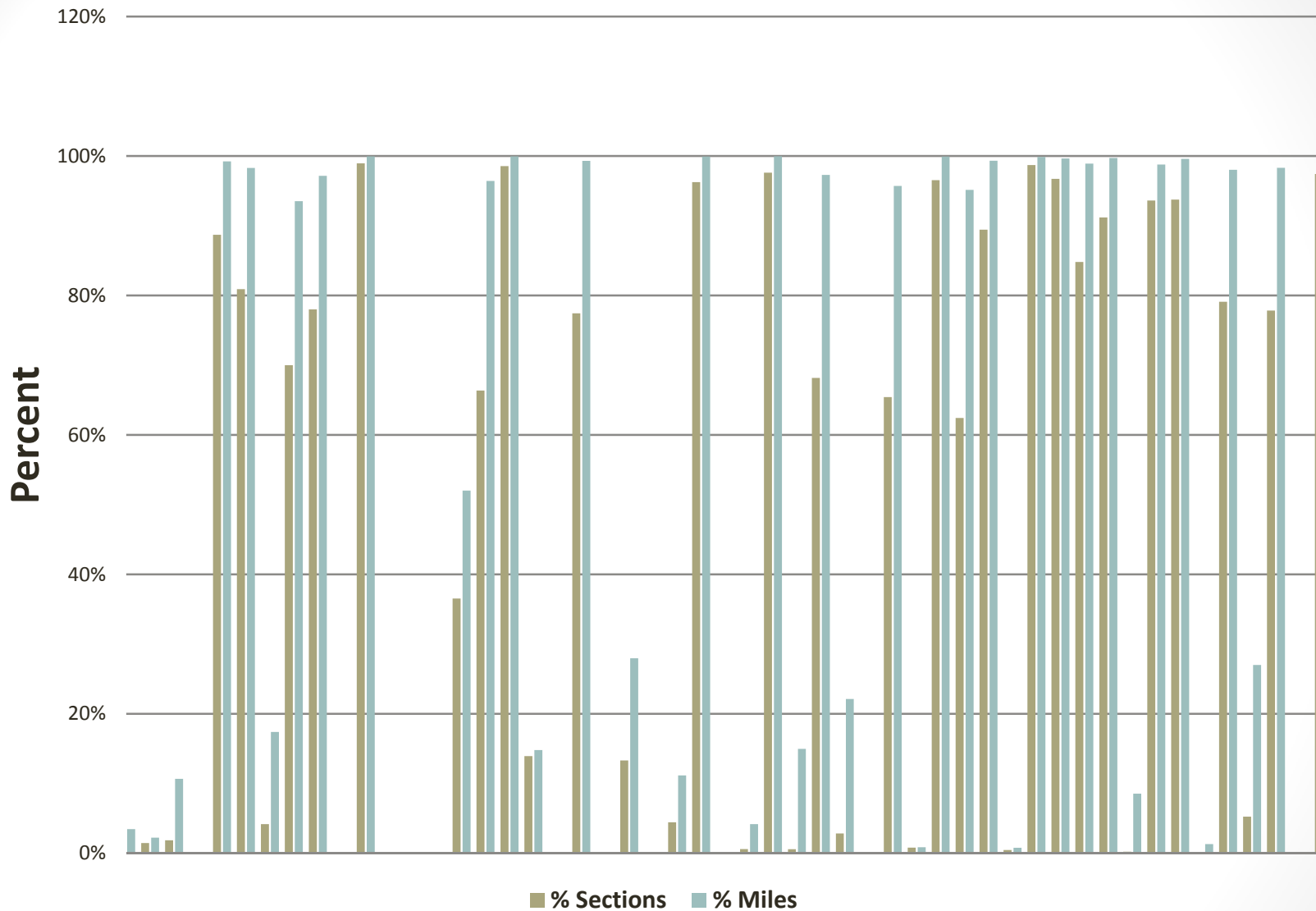
Note: analysis may include data beyond HPMS requirements.

2012 HPMS <0.10 mi IRI Sections



Note: analysis may include data beyond HPMS requirements.

2012 HPMS >0.10 mi IRI Sections



Note: analysis may include data beyond HPMS requirements.

2012 HPMS IRI Data

- IRI Year:
 - 14% Sections are Null
 - 21% Mileage is Null
 - 10% Sections are 2013 (too early) data!
 - 7% Mileage is 2013 (too early) data!
 - 7% Sections are older than 2 years (too old)
 - 10% Mileage is older than 2 years (too old)



Questions and Comments

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