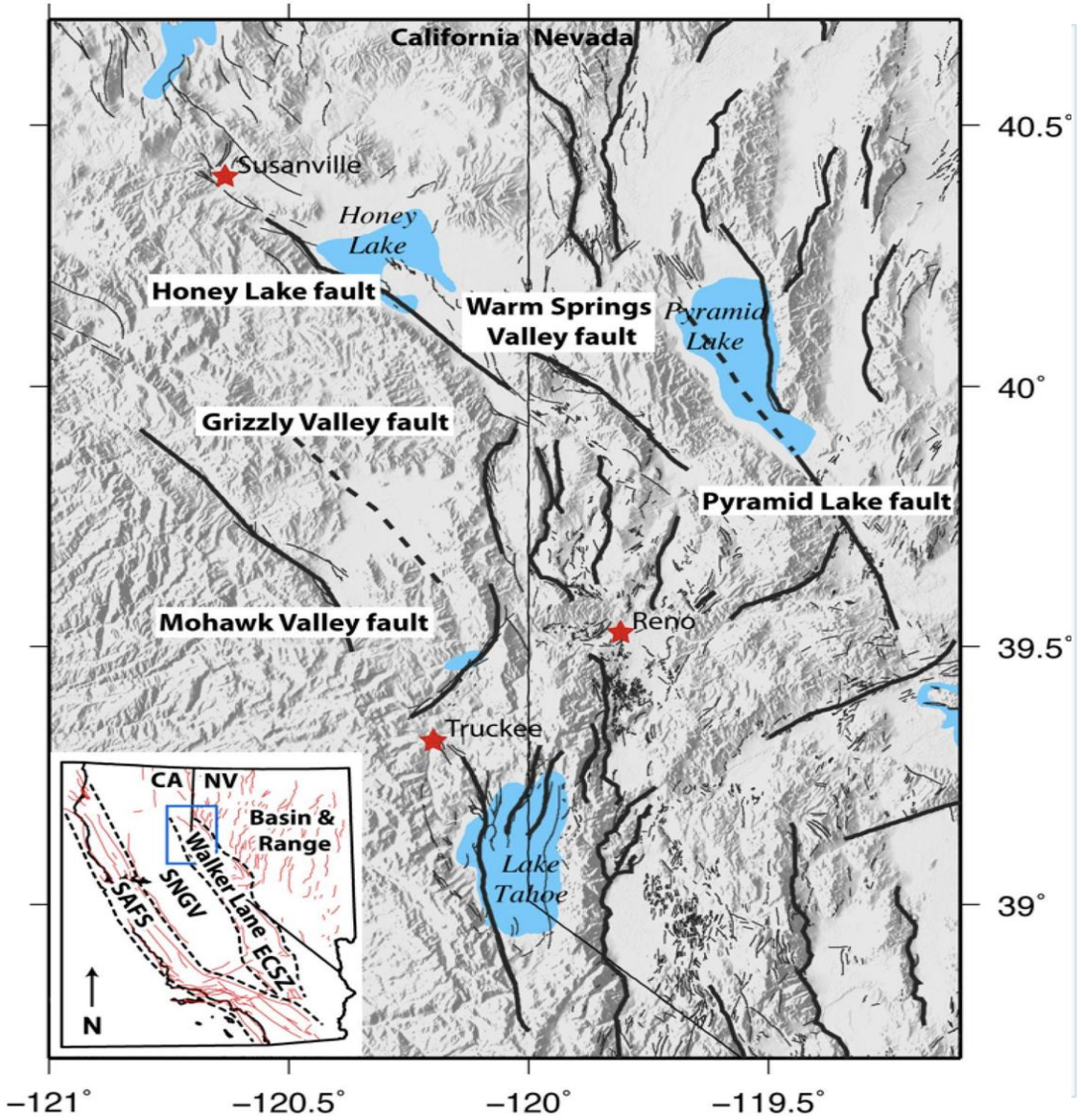
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1 Where does all the deformation go?

- Can we detect previously unmapped faults?

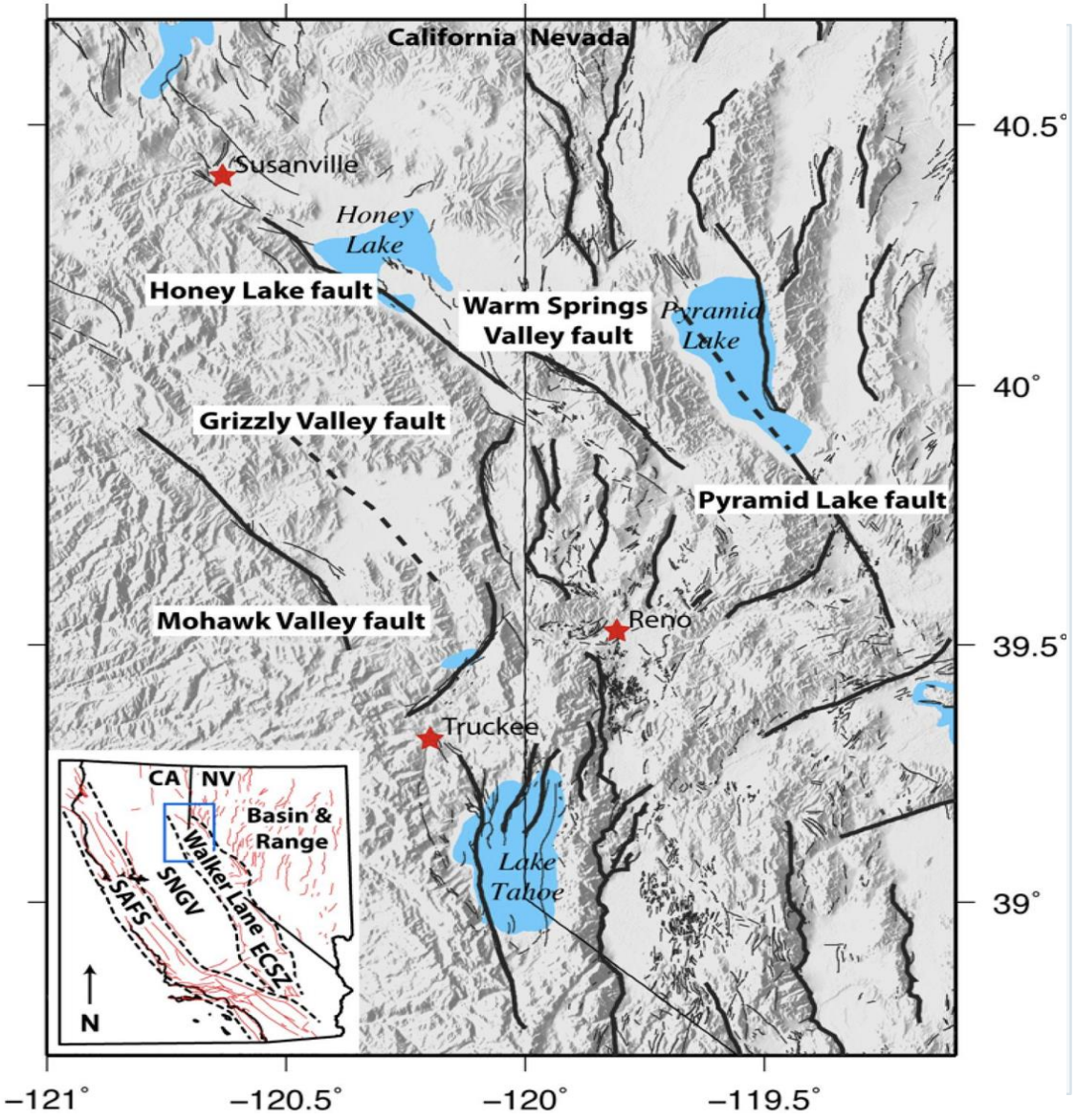
2 How do fault networks evolve?

- Is the northern walker lane mechanically frustrated? What does northern vs central vs southern walker lane reveal in terms of evolutionary pathways?

3 How do faults partition strain rate?

- Shadow or trampoline: does slip inhibit or promote activity on adjacent faults? Also do fault slip rates vary in time (implications from dating)

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4 Why do orthogonal faults form?

- Can we tell if they are: inherited? Conjugate? Dynamically separated?

5 What is the crustal strength and stress state?

- What does a highly segmented crust entail for rheology?
- On what scale does the stress field vary?
- What is the absolute level of stress?

SiERRa | Translational research

01	**Datasets that are FAIR (Findable, Accessible, Interoperable, Reusable)**	Data exist, but may be fragmented, distributed, or protected. SCEC can help incorporate approved data into FAIR community models while working with data stewards to protect sensitive information.
02	**Fault mapping**	Improve maps of known faults and identify previously unmapped structures
03	**Ground-motion estimates**	Advance physics-based ground-motion simulations and site-specific response, validated with observations and tailored to infrastructure and risk decisions (specially for rare events and for high frequencies).
04	**Shallow-crust models**	Improve near-surface velocities, basin structure, and shallow heterogeneities. Organize in datasets. Fuse in velocity models. Build higher-fidelity 3D site-specific models