

ASSESSING THE LOCAL ECONOMIC IMPACTS OF LAND PROTECTION IN NEW ENGLAND

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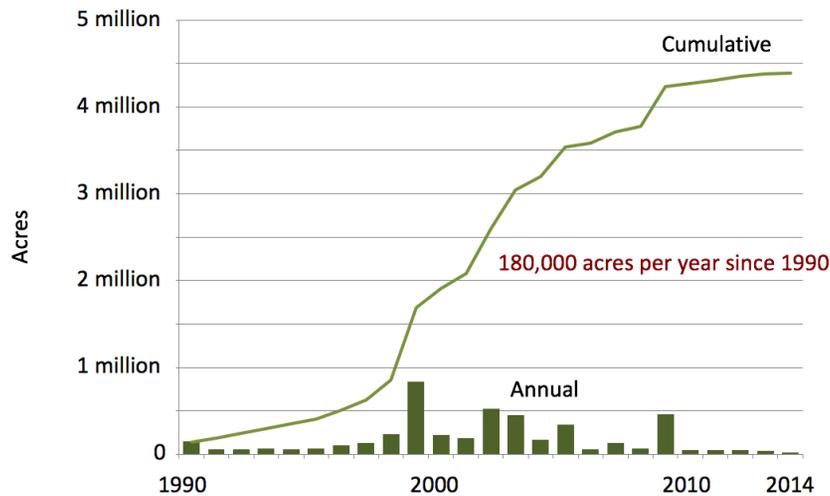
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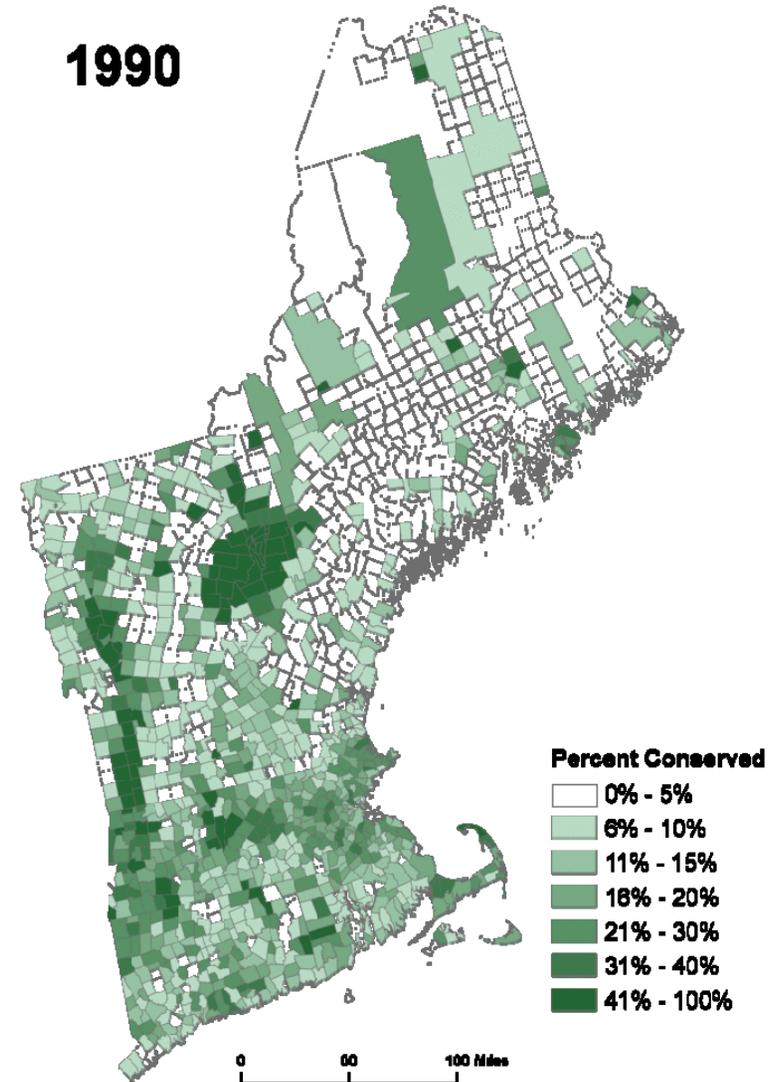
> 4.5 million acres protected since 1990

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Land Conservation in New England



- Substantial land protection in last two decades (*Wildlands and Woodlands 2017*)



What does this mean for local economies?

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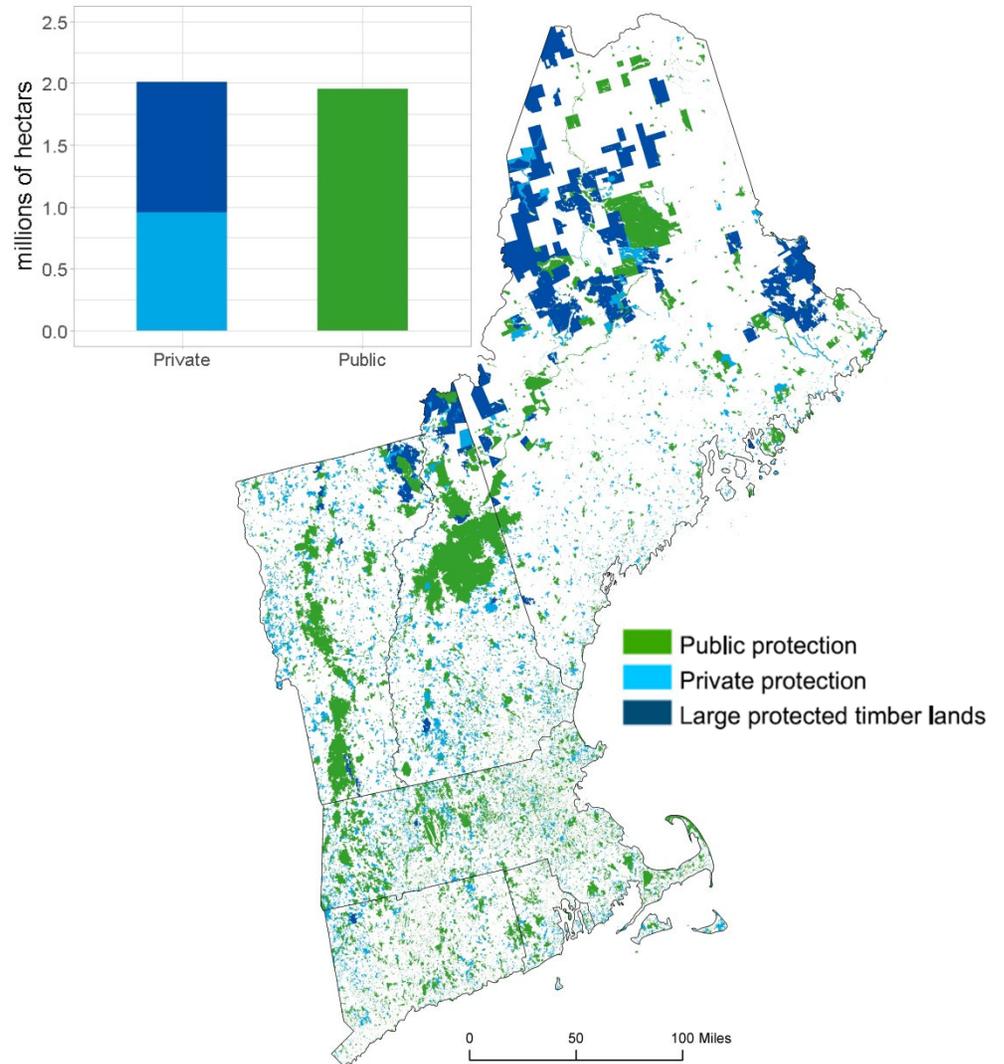
- Clear benefits of land protection
- But also costs (forgone use, management costs)
 - Benefits to many, costs often local
 - Question: what are the **net local impacts** of protection on **key economic indicators** at the town and city level across New England?



Land protection data: 1990-2015

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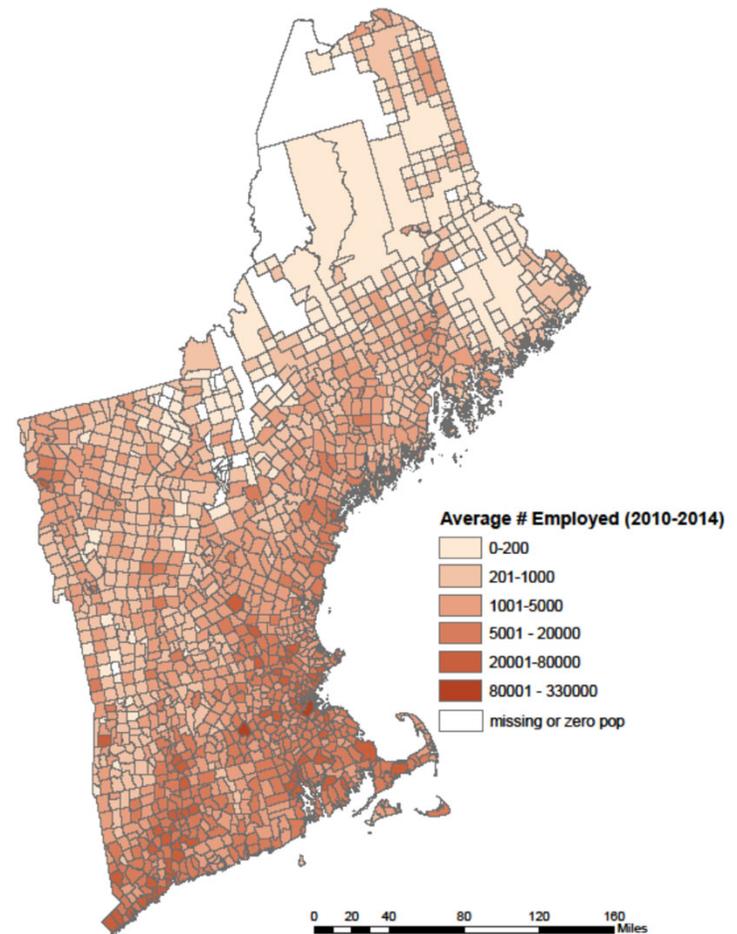
- **Public, Large protected timber lands, Other Private**
 - ▣ Highstead/Harvard Forest: aggregation of multiple databases
 - ▣ Includes ownership class and date of establishment



Local economic indicators: 1990-2015

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- **# people employed, # people in labor force, unemployment rate** (BLS Local Area Unemployment Stats)
- **# new residential building permits** (Census Bureau Building Permit Series)
- median household income, population, employment by major sector (Census and ACS)
- **Study coverage: 1501 towns and cities; > 99% of population in NE**



Average # employed, 2010-2014 (LAUS)

Methods: Multiple regression, panel data

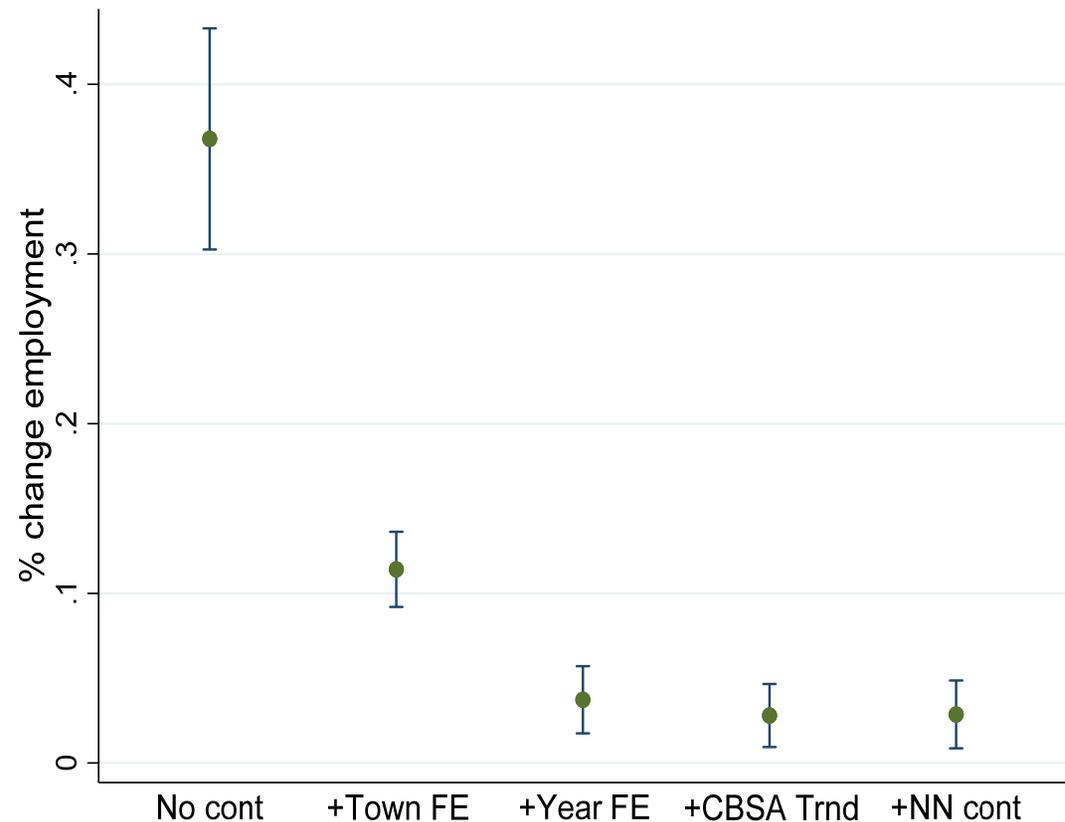
- Estimation goal: causal impacts
- Changes in employment due to changes in land protection?
- Strategy:
 - ▣ Panel data: compare changes across time within towns/cities (5 yr. avg.)
 - ▣ Timing: assess changes in economic indicators after protection
 - ▣ Controls for other factors: town-level fixed factors, regional growth trends, common time factors (recessions/expansions), protection in neighboring towns



Findings: additional land protection → # employed responds positively in next 5 yrs

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- No controls: strong positive association
- Controls for:
 - towns (“fixed effects”)
 - + time period
 - + regional trends
 - + neighbors’ protection
- → positive and statistically sig. effect



Points: coefficients; bars: 95% Confidence Intervals

Greater employment

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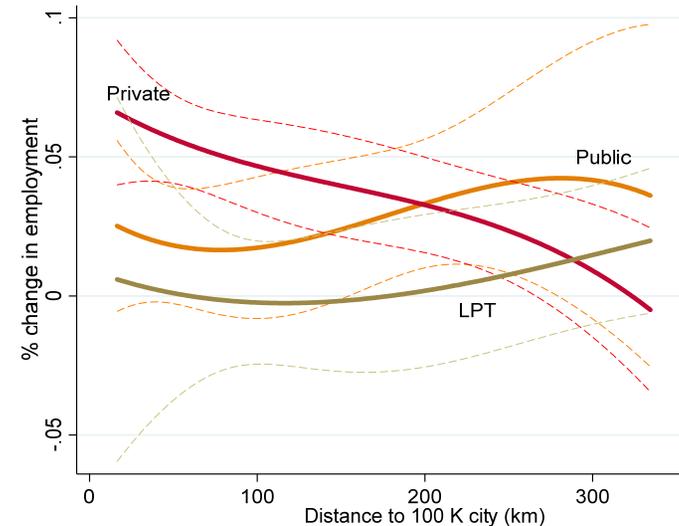
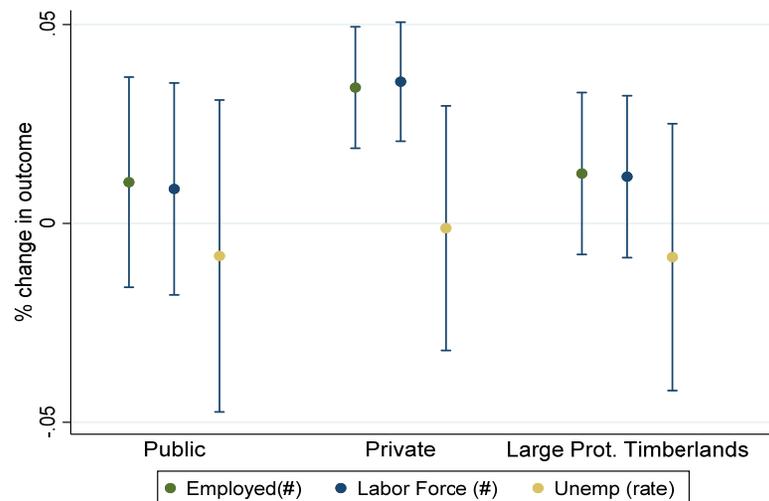
- Impacts on emp.: + but small-moderate
 - Elasticity: +1% in share of town protected → +.03% increase in # of people employed
 - E.g.: town w/ 20,000 employed people: share protected 10-15% (50% change) → + 1.5% in # employed (or +300 people)
- Why/how?
 - Recreation and tourism: spending on travel, equipment, rentals, etc.
 - Amenity value: draws people and business
 - Allowed resource use: e.g. timber, maple syrup



Additional findings

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- No significant impact on new housing permits or median household income
- Rural and exurban areas: largest positive impacts
- Public, Private, LPTs; possible complementarities



Conclusions

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- ❑ Substantial new protection → generally positive impacts on local economic indicators
- ❑ Land protection can help local economies
- ❑ Key questions remain:
 - ❑ What other factors must be in place for success?
 - ❑ Impacts on tax base, small businesses?
 - ❑ Public access and equity considerations?
- ❑ **Welcome your reflections**

