Introduction
Land ownership in Oregon is a patchwork of privately owned lands and public lands owned either by the state or federal government. Forest management policies have focused on resource use and conservation in public forests, leading to potentially divergent timber extraction and forest management practices on private lands versus public lands.

Research Question
Is there a relationship between changes in forest cover on publicly managed lands and on privately managed lands?

Hypothesis: Public land forest cover will remain the same or increase between 1987 and 2001, while private land forest cover will decrease.

Important Policies Affecting Federal Forest Management

- National Environmental Policy Act of 1969
- National Forest Management Act of 1976
- Multiple Use and Sustained Yield Act of 1960
- Wilderness Act of 1964
- Northwest Forest Policy of 1994
- National Environmental Policy Act of 1969
- Multiple Use and Sustained Yield Act of 1960
- National Forest Management Act of 1976
- Northwest Forest Policy of 1994
- Timber harvested from BLM and USFS lands = 50% of total harvests in Oregon from 1960 to 1990 (Thomas et al. 2006).

Methodology
Data

- Land ownership: Gap Analysis Program USGS
- Satellite images: USGS Earth Resources Observation and Science Center
- Northwest Oregon
- Normalized Difference Vegetation Index (NDVI)
- Measure of reflectivity: band 3 (red), band 4 (near infrared)
- Combine data in ArcGIS 9.2
- Reclassify NDVI values: Forest ≥ 0.50
- Convert ownership raster to vector
- Zonal statistics determine total area by ownership
- Coding to allow for raster calculations
- Reclassification of NDVI set too low to delineate between forests and maturing agricultural crops
- Possible reasons:
  - High rates of timber extraction prior to NWFP: benefits of NWFP
  - Inclusion of county-level public lands
  - Possible reasons:
    - High rates of timber extraction prior to NWFP: benefits of NWFP
    - Inclusion of county-level public lands
    - High resolution satellite data in middle of the agricultural growing season, when crops are quite mature
    - Reclassification of NDVI set too low to delineate between forests and maturing agricultural crops
    - Future research directions:
      - Compare forest cover loss between each of the public land ownership types and between those and private lands

Conclusions
Hypothesis was not supported, as public lands experienced a greater loss in forest cover than private lands.

Possible reasons:
- Reclassification
- Inclusion of county-level public lands
- High rates of timber extraction prior to NWFP: benefits of NWFP

Future research directions:
- Compare forest cover loss between each of the public land ownership types and between those and private lands

Results

<table>
<thead>
<tr>
<th>Table 1: Change in forested area in study region</th>
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<tr>
<td>Public Lands</td>
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<td>Private Lands</td>
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References