

**The Value of Environmental
Amenities Implied by
NeoClassical Economic
Growth Theory**

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Why Assess Amenity Values?



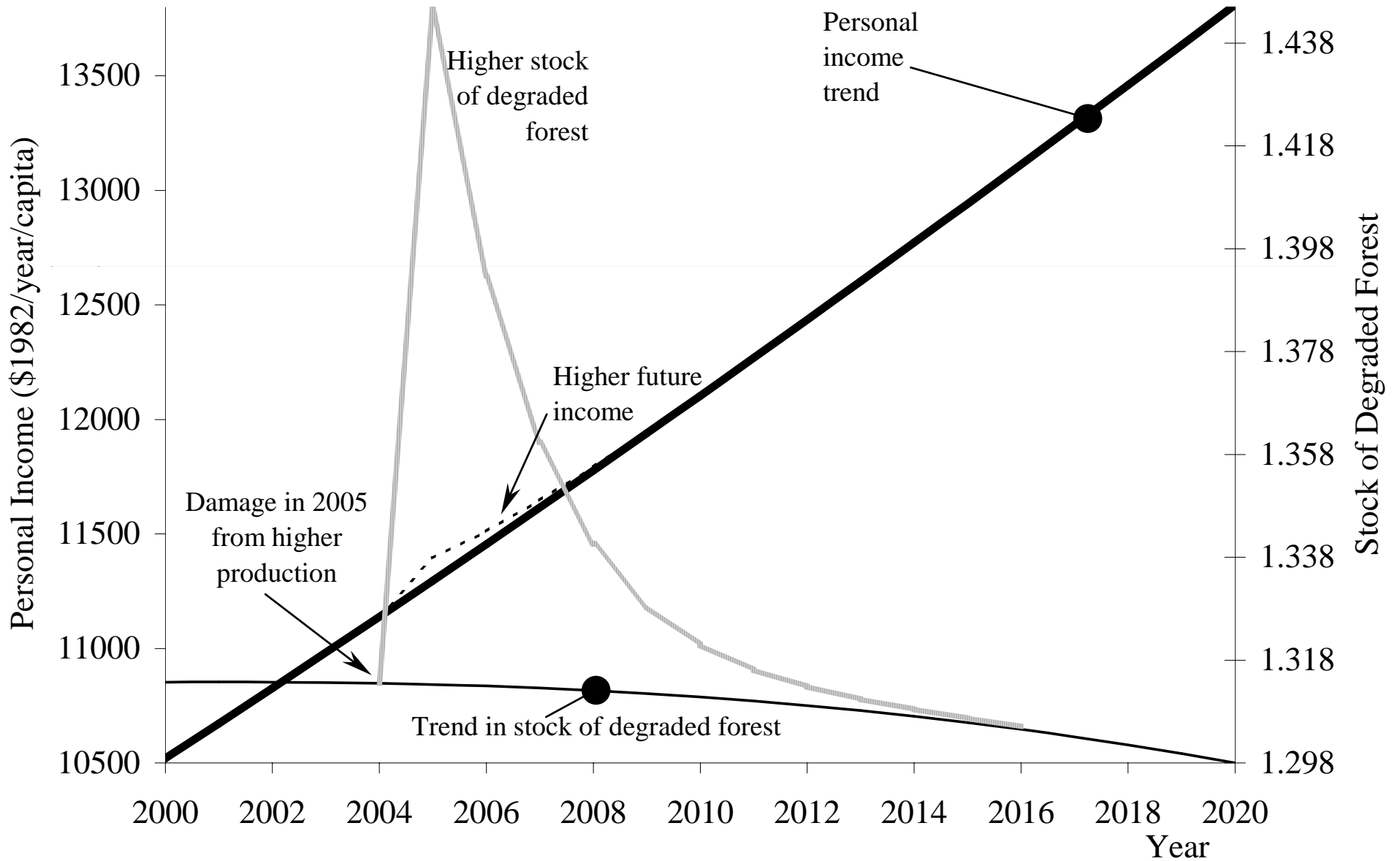
Why Assess Amenity Values?

- “Ignoring” non-market values assigns the very precise but inaccurate value of zero
- Amenities are increasingly valuable in an affluent economy
- Lord Kelvin
 - "To measure is to know "
 - "If you can not measure it,
you can not improve it."

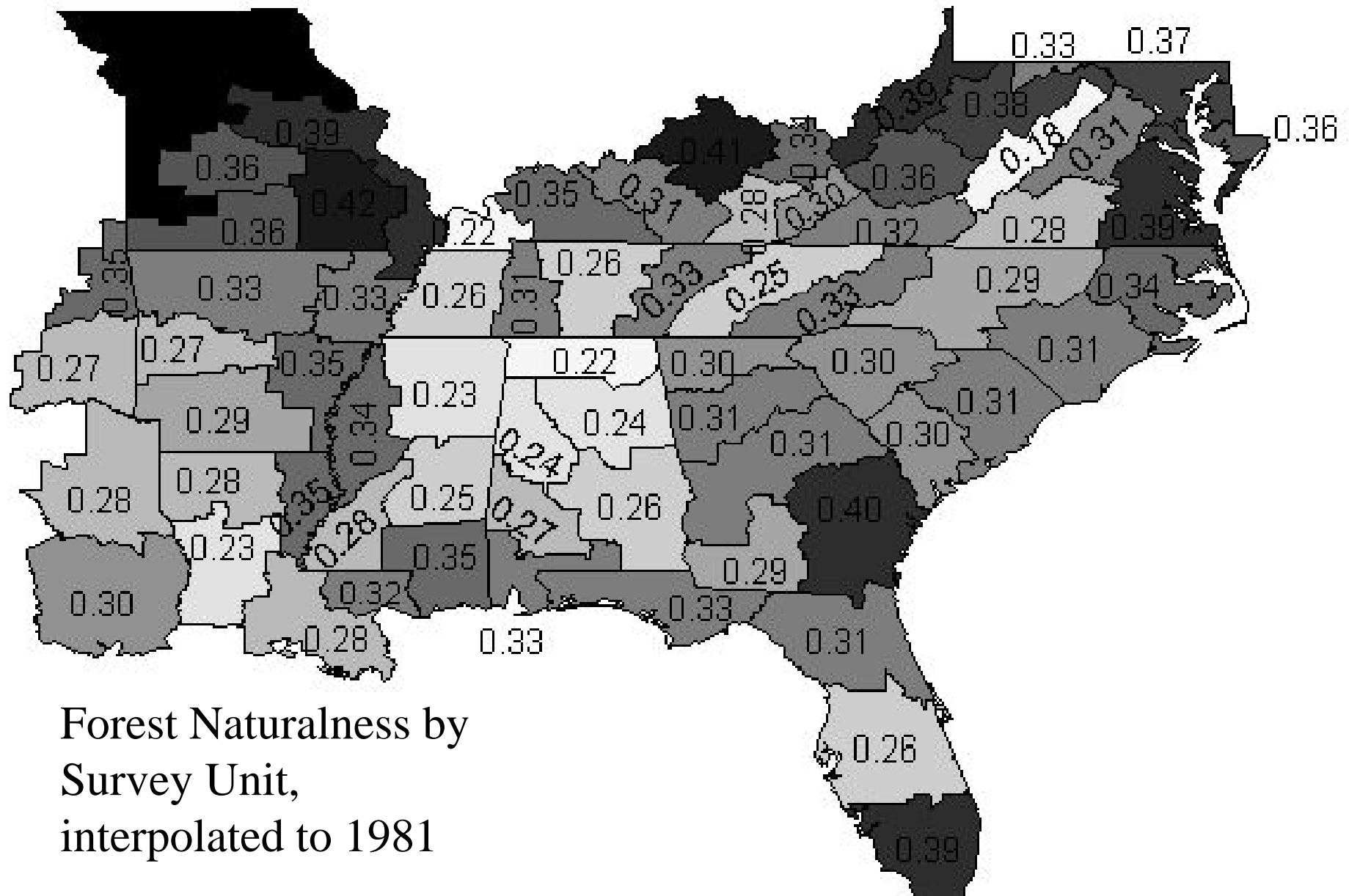
Non-Market Valuation Techniques

- Household Production Function
 - e.g. Travel Cost Method
- Hedonic Pricing
- Contingent Valuation

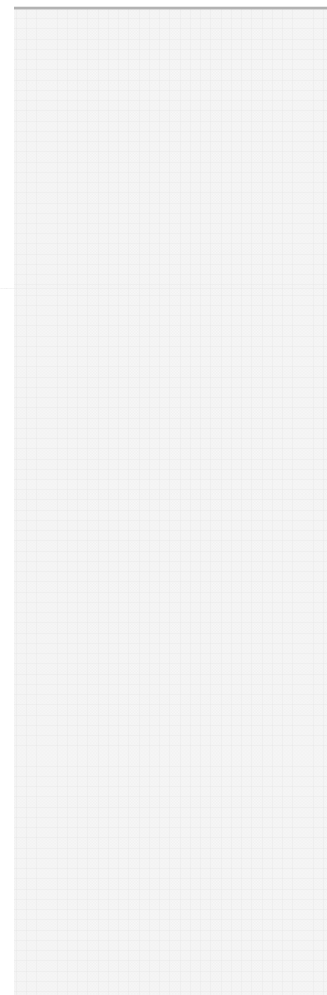
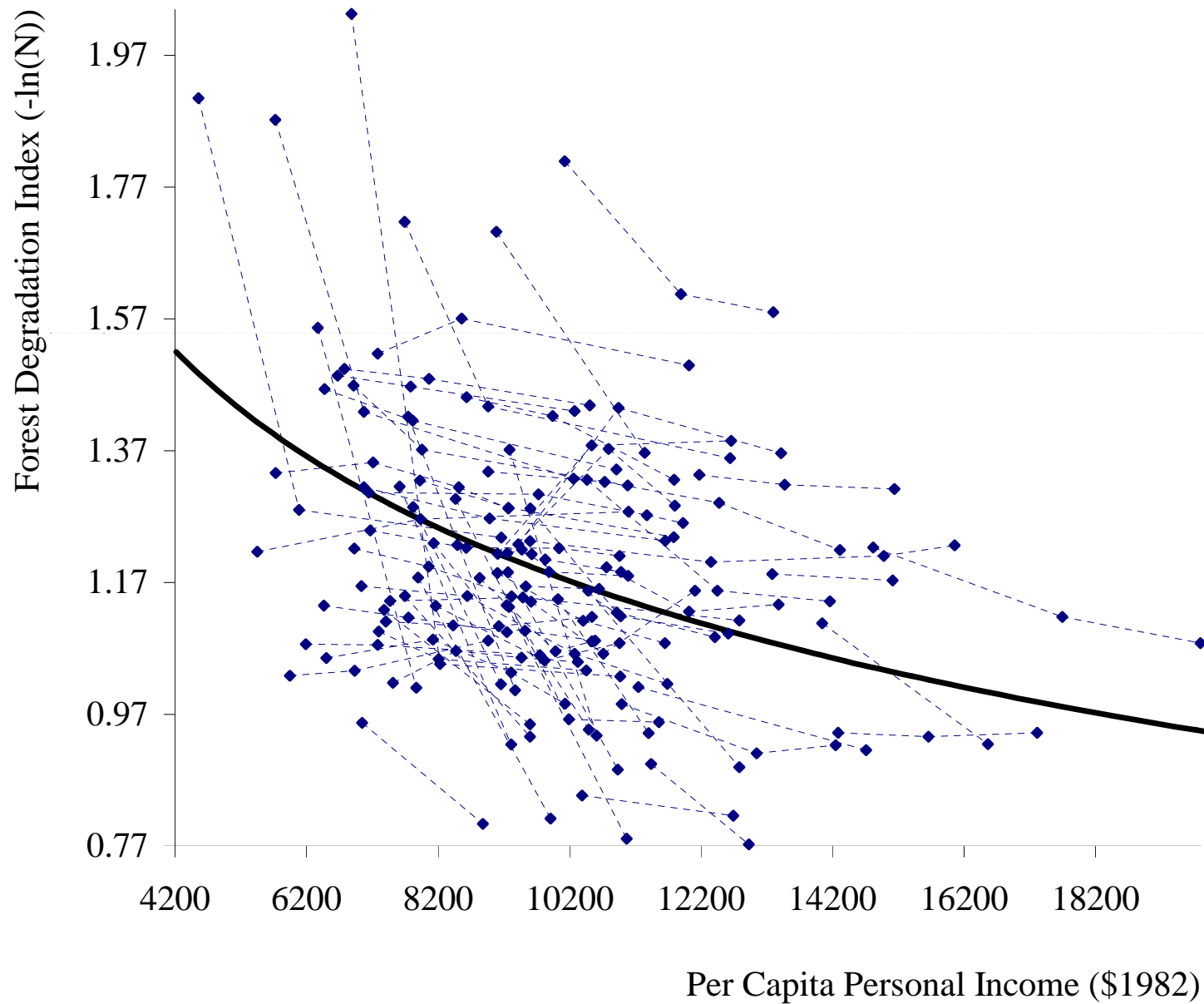
Aggregate Revealed Preference



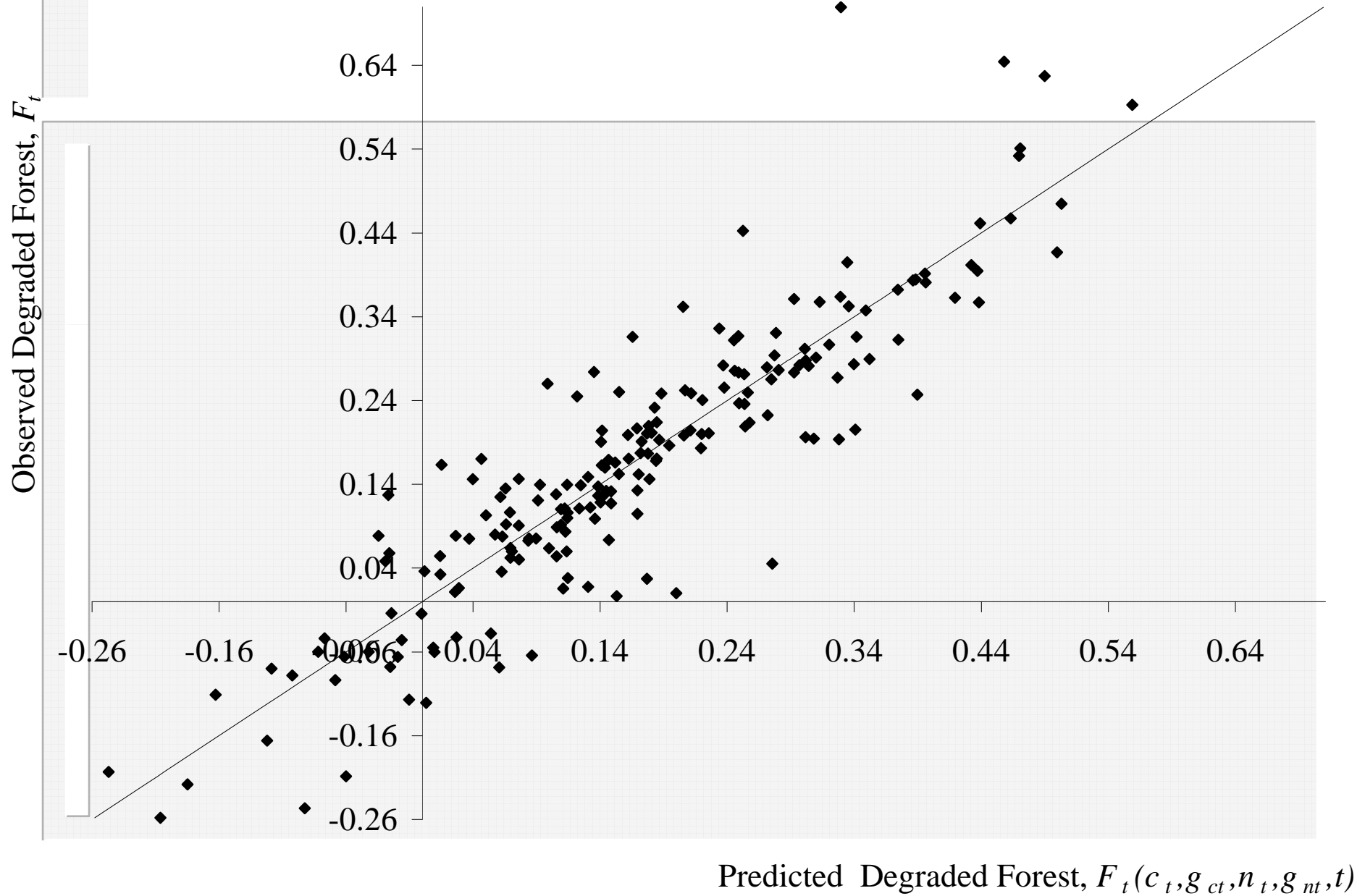
Forest Landscape Assessment



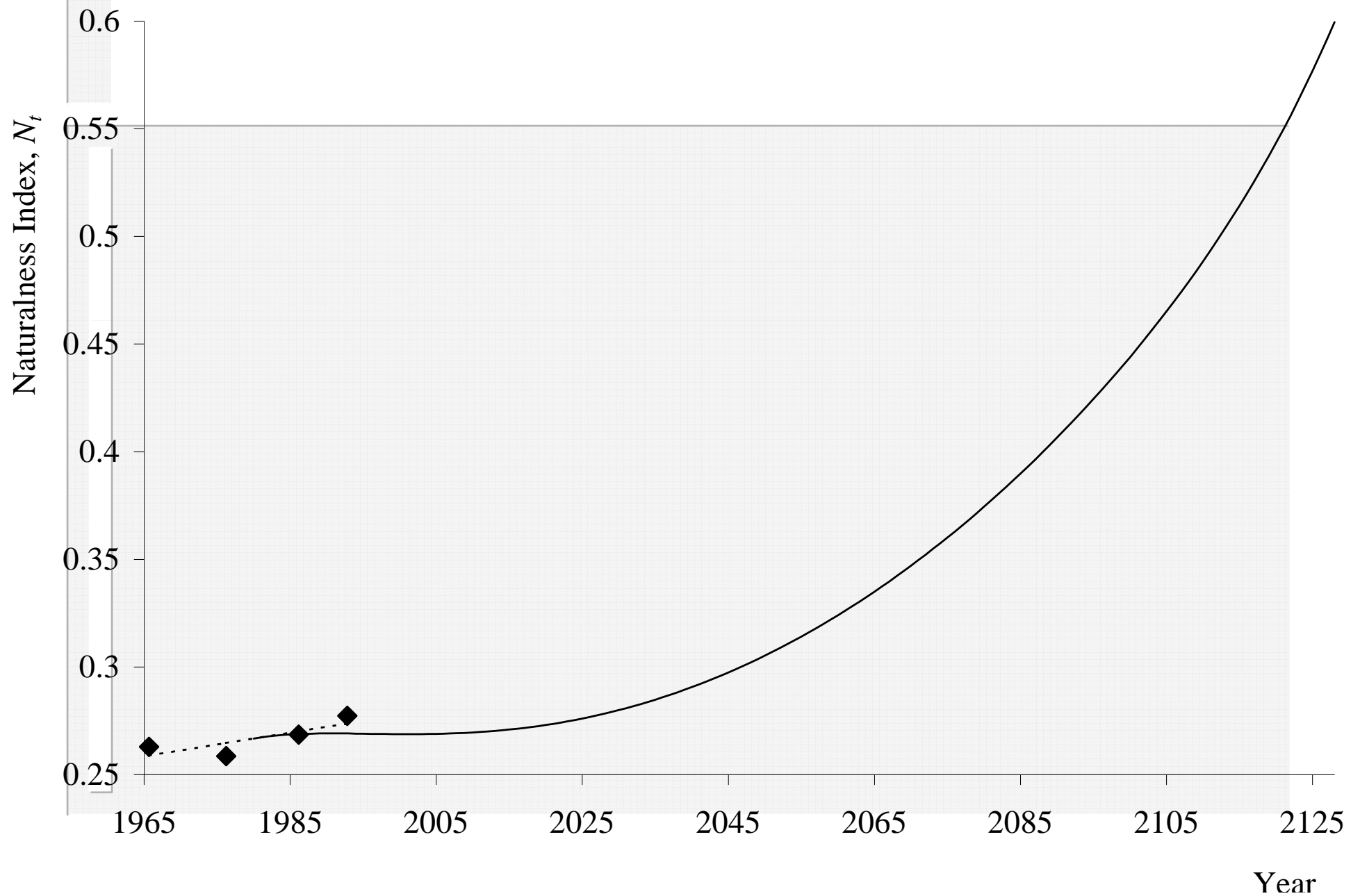
Forest Quality Trend vs. Income



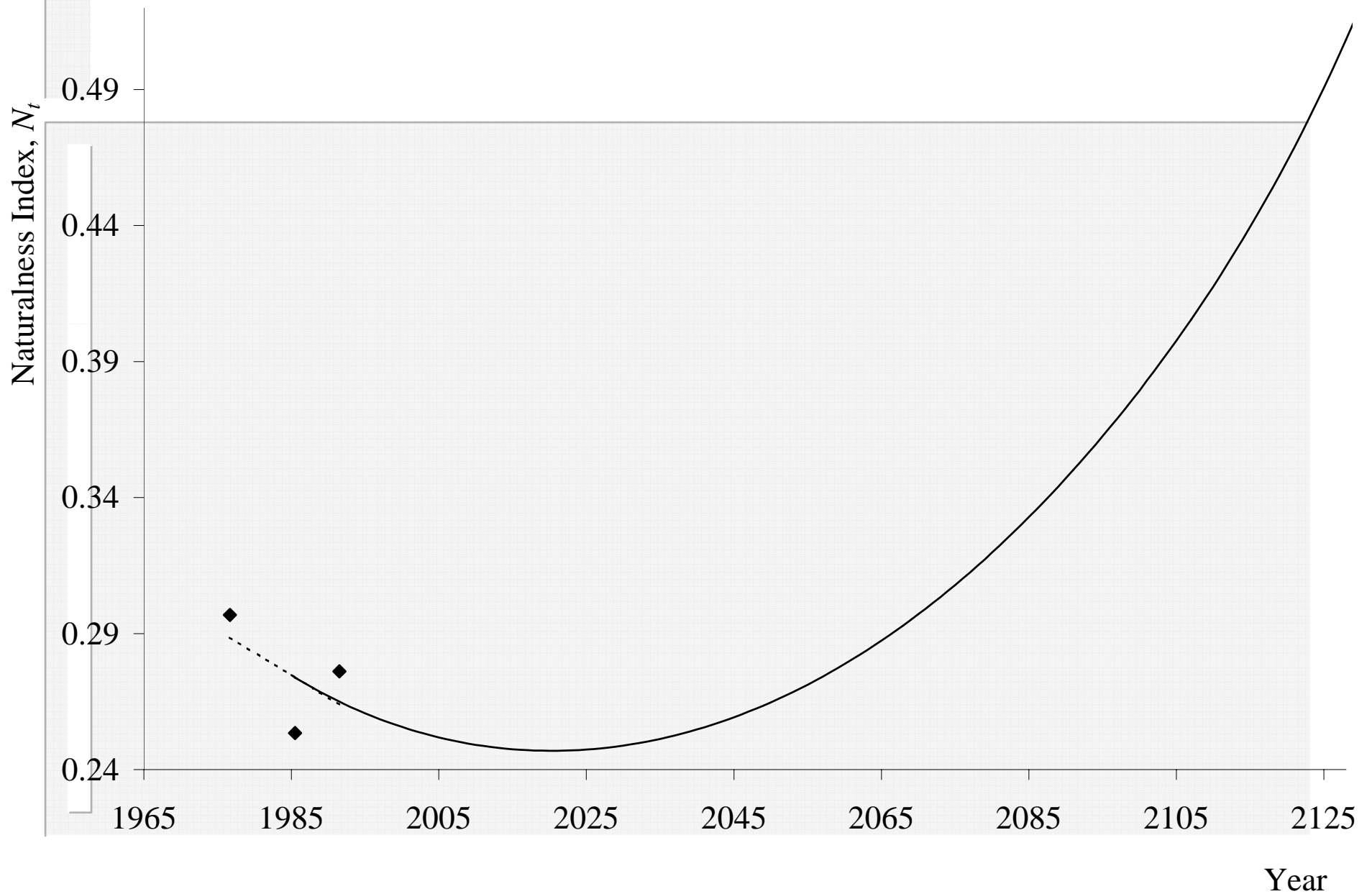
Stokey Model



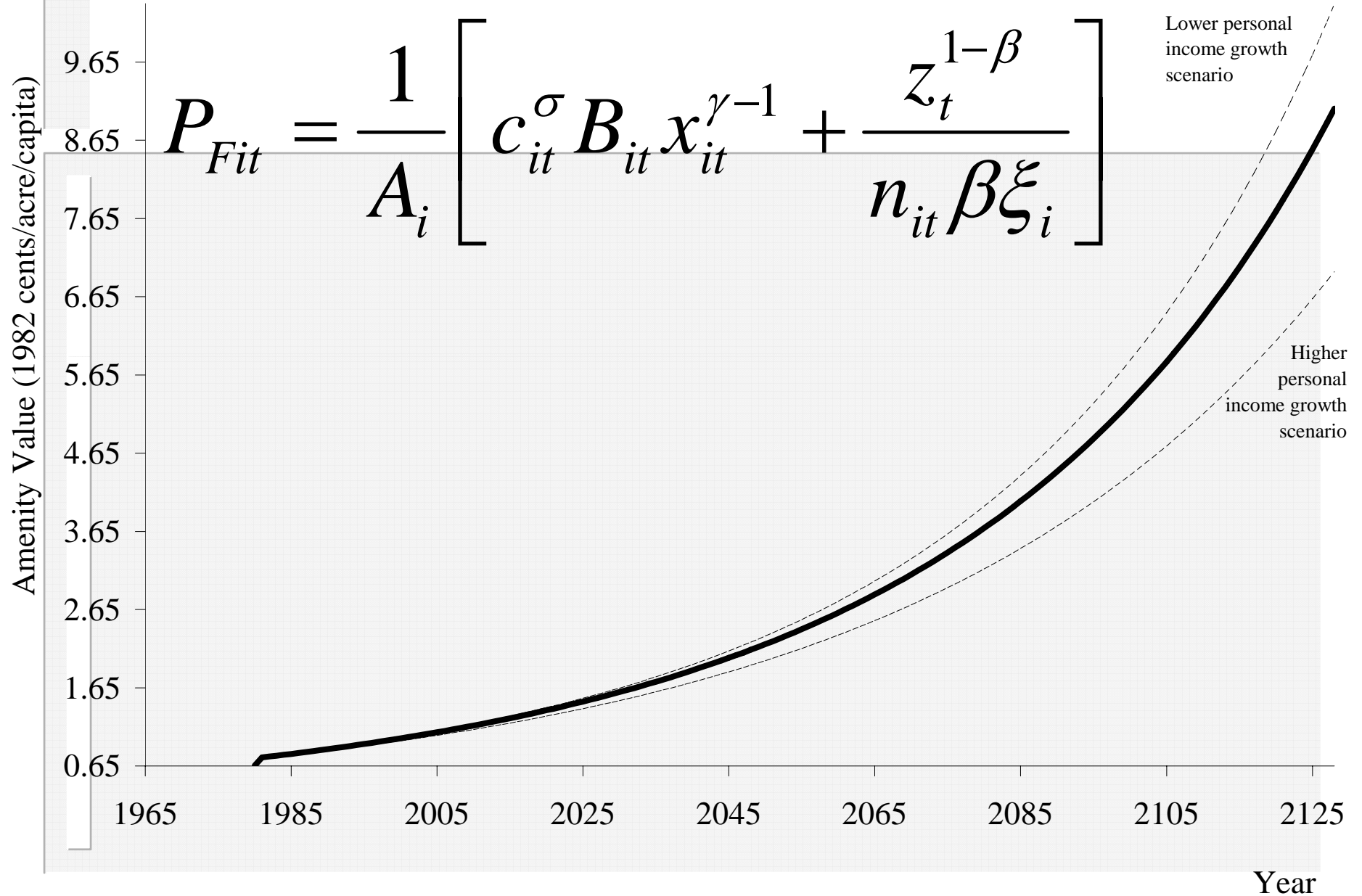
Model of Forest Naturalness Trend



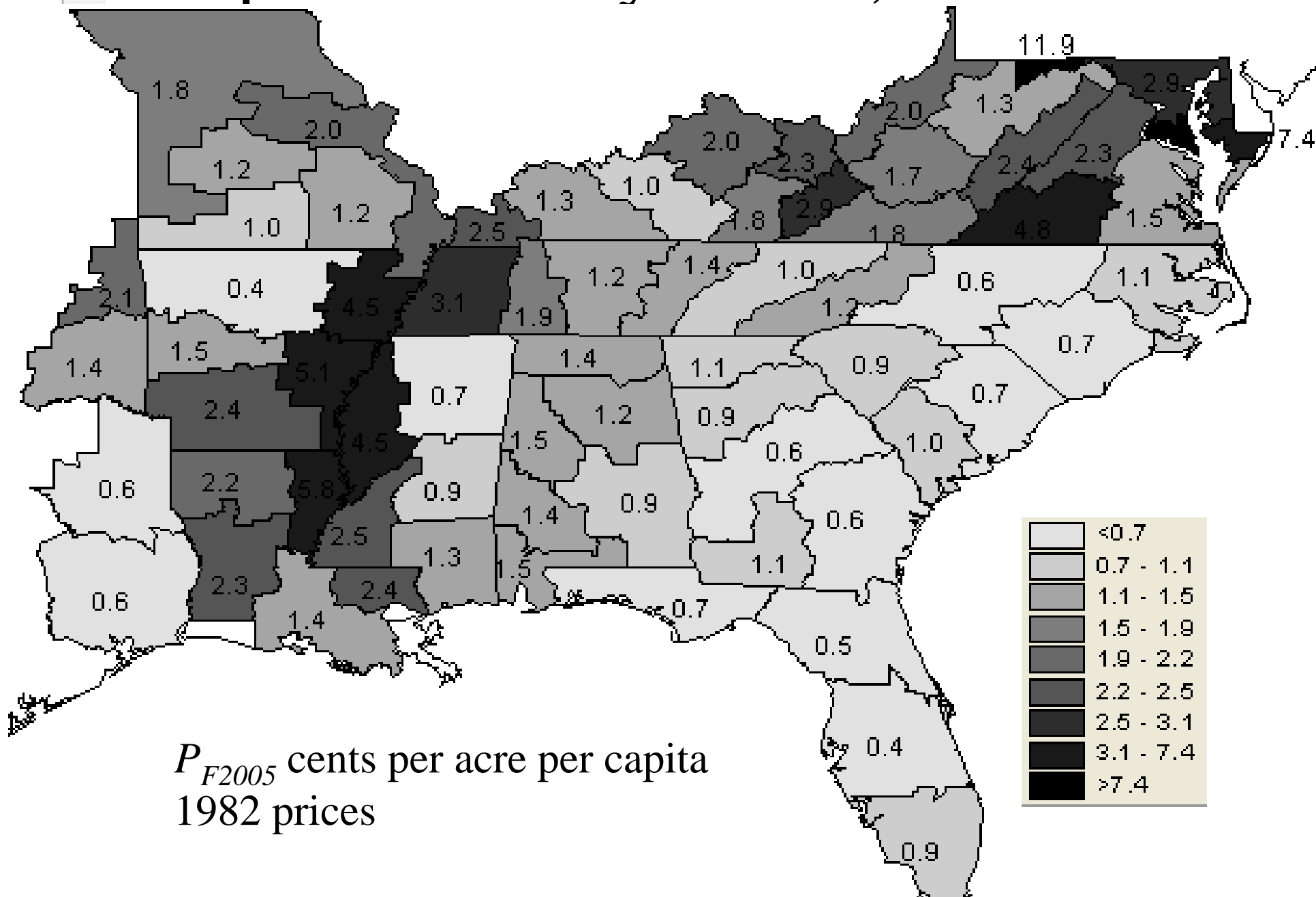
A Different Survey Unit, VA2



Amenity Value



Per Capita Amenity Value, 2005



Effects of variables on amenity price

	Amenity per capita		Total Amenity	
N_t	34	(14)*	265968	(76441)*
N_t^2	-40	(17)*	-305644	(91591)*
N_t / N_{t-1}	-0.5	(0.3)*	-3011	(1374)*
$n_t (10^{-4})$	-0.008	(0.002)*	29	(12)*
g_{nt}	-0.8	(0.4)**	-9523	(2270)*
c_t	0.0004	(0.0001)*	6	(0.6)*
g_{ct}	-3	(1)*	-10848	(6655)

Conclusions

- Forest Amenity Value to Society
 - 1.0 to 2.3 cents per person
 - \$6,280 to \$17,300 per acre
- Forest Amenity Value to Landowner
 - \$2,010 per acre
- Landowners pay more than average
- Landowners pay only part of the total
 - Classic under-provision of a public good

Acknowledgements

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