



Review of USDA Baseline Projections for Planted Acreage versus Actual Land Use 1996-2011 and Changes in Overall Land Use Trends 1987-2007



CBES
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Introduction

The study examines trends in USDA projections for U.S. planted cropland area over the past twenty years and compares the projections with actual planted area. We attempted to identify relationships between trends in projections, actual area, and biofuel policies.

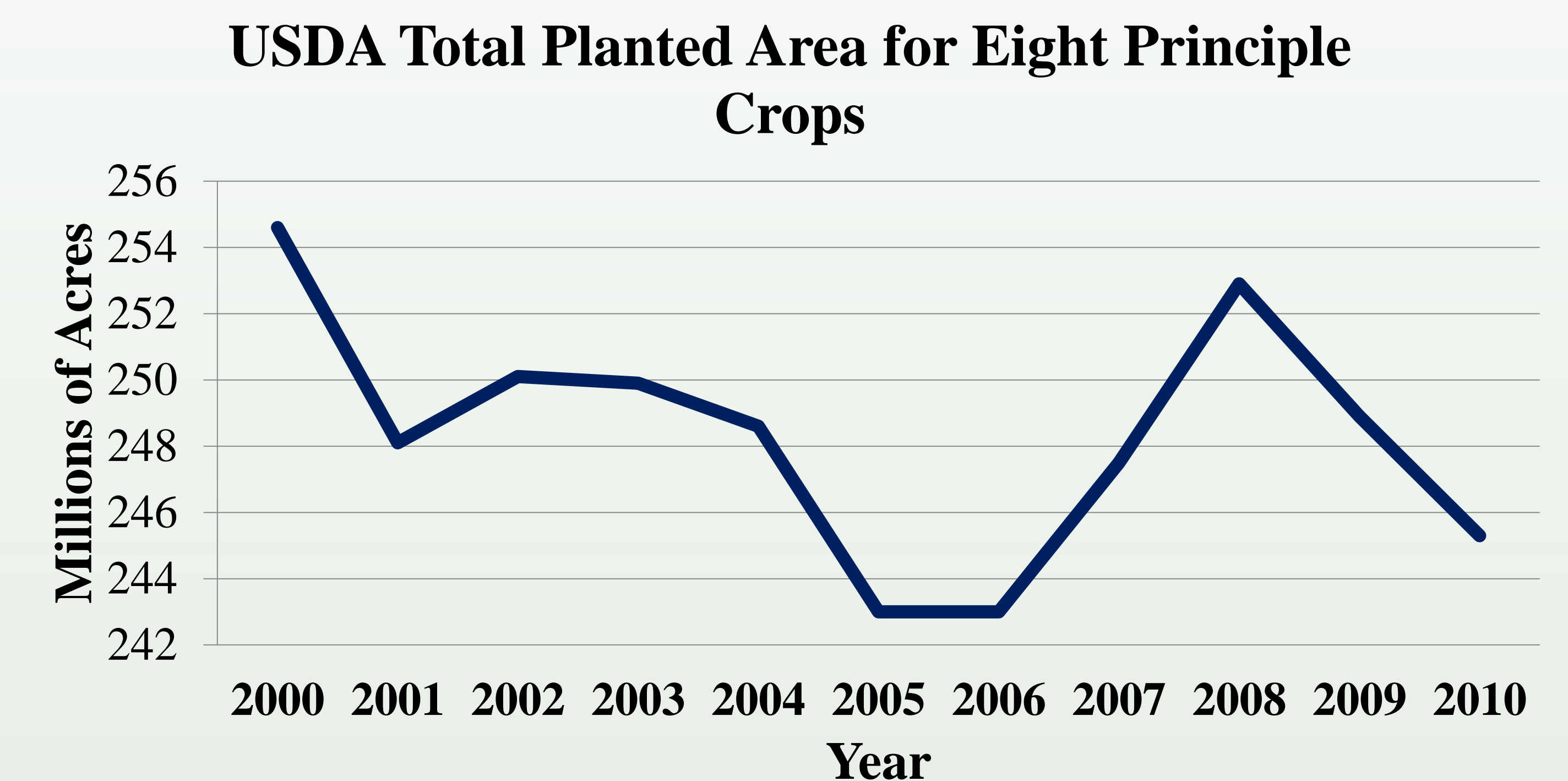
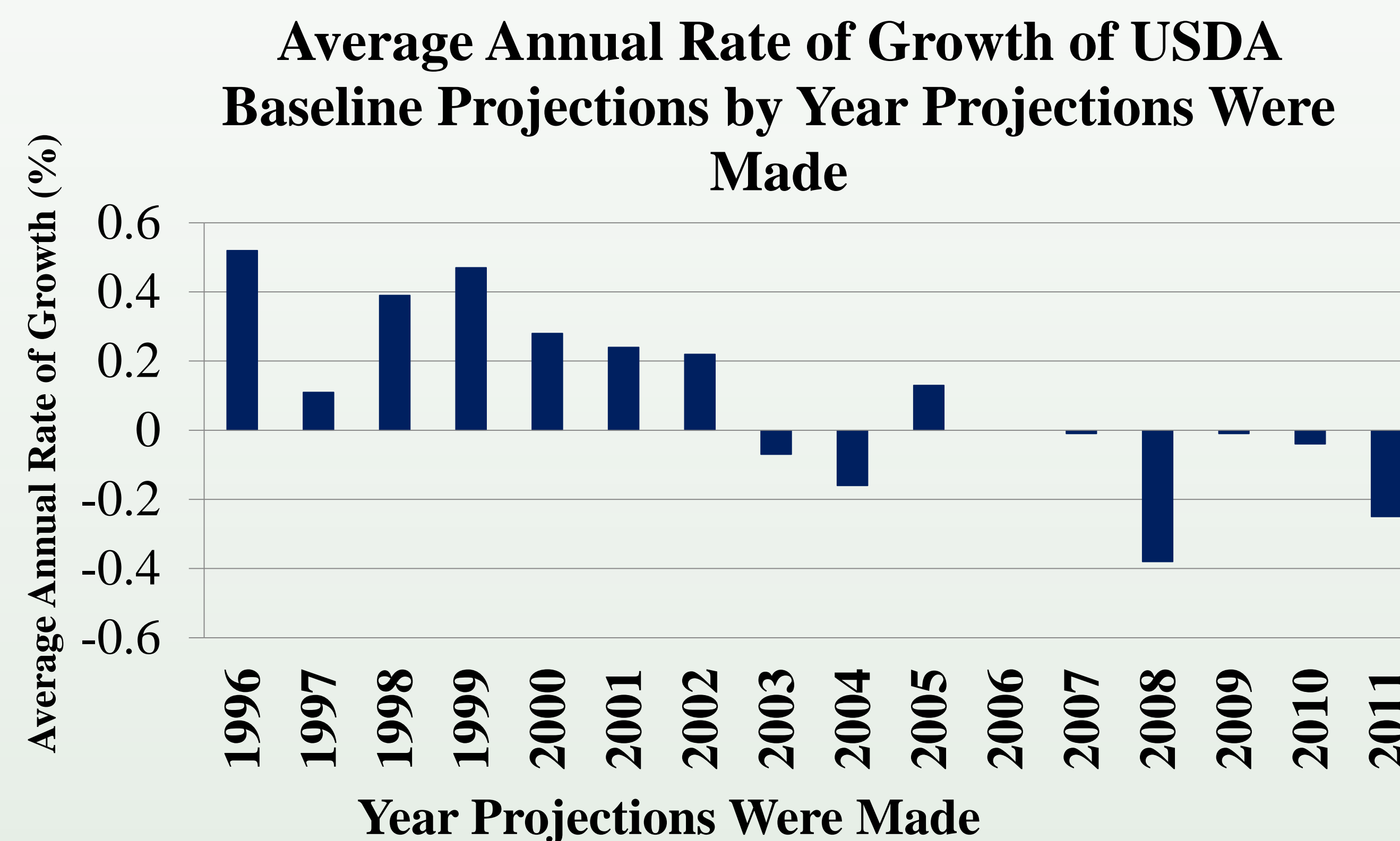
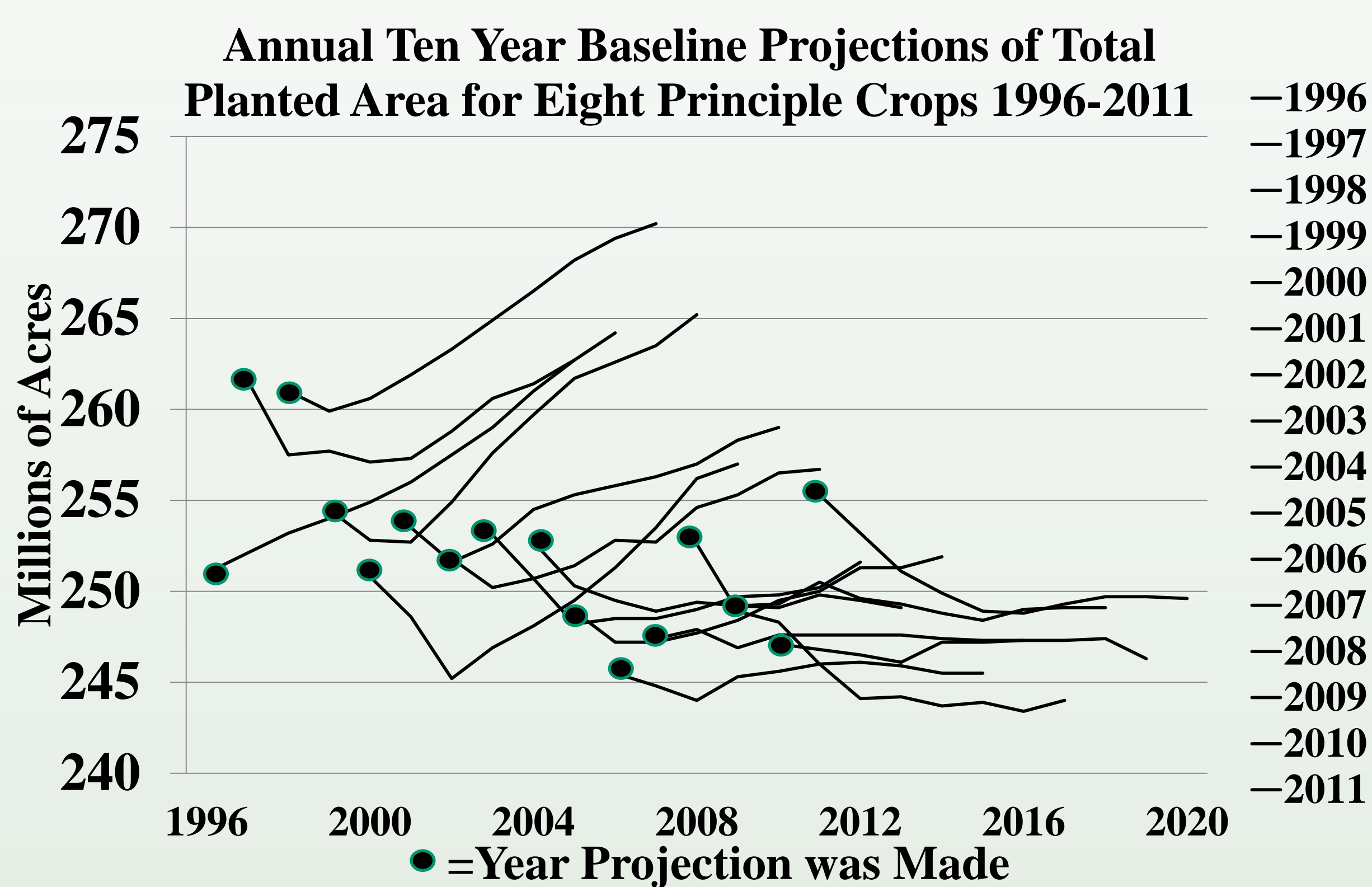
Sources and Methods

Data on projected and actual cropland use from the United States Department of Agriculture's (USDA) Economic Research Service (ERS): www.ers.usda.gov/Data/Baseline and on total land use trends from the National Resource Inventory (NRI): http://www.mrcs.usda.gov/technical/NRI/2007/2002_NRI_Summary. Data were downloaded between 06/08 and 07/14, 2011.

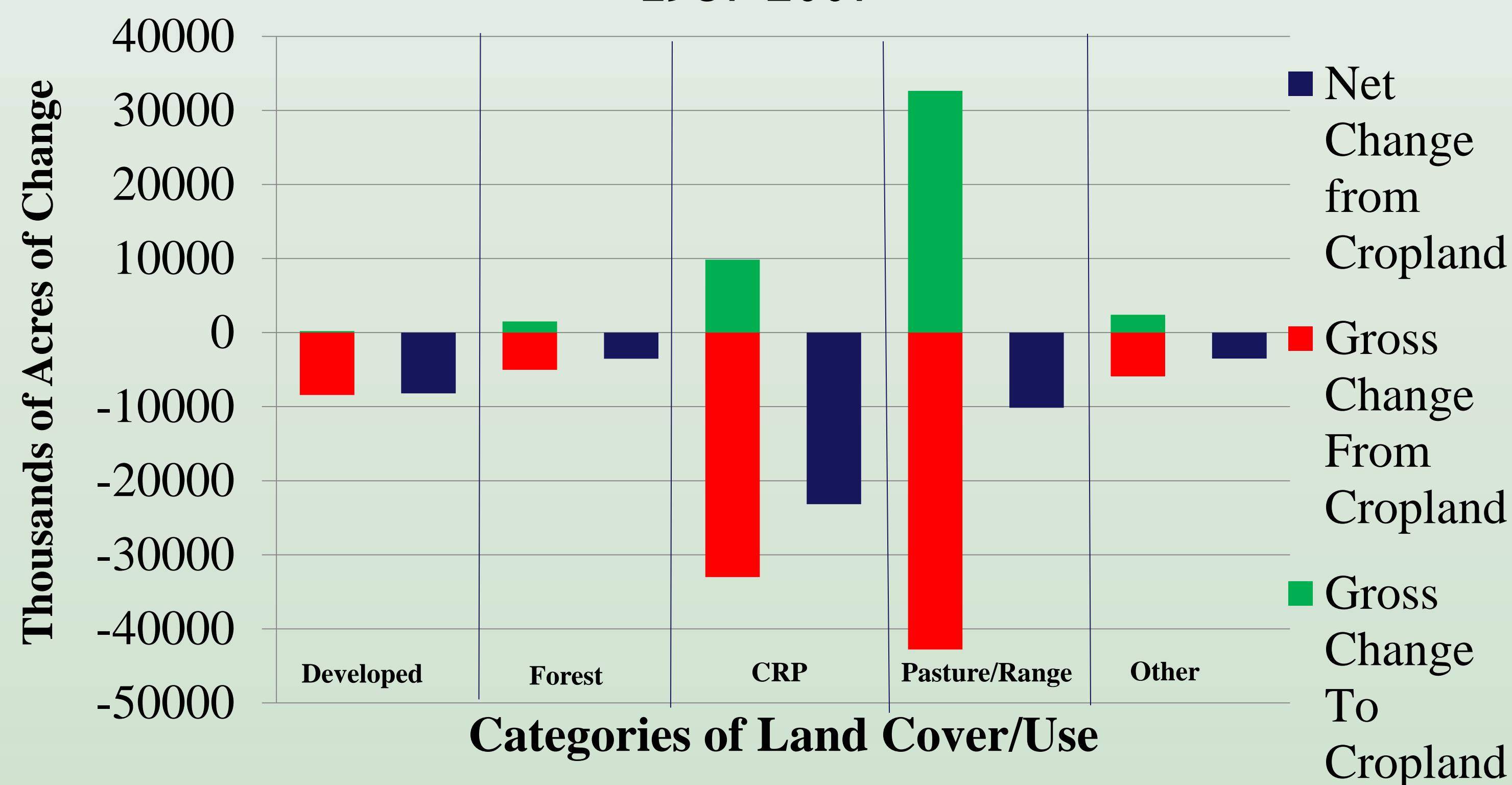
Ten year baseline projections have been developed annually by the USDA since 1995, based on models (FAPRI), prior years' data and other factors. Projections of planted area and subsequent reports on actual planted area are based on eight major crops: corn, soybeans, sorghum, oats, barley, wheat, rice, and upland cotton, that constituted 94 percent of 2009 total planted acreage (Horowitz et al., 2010).

Results and Discussion

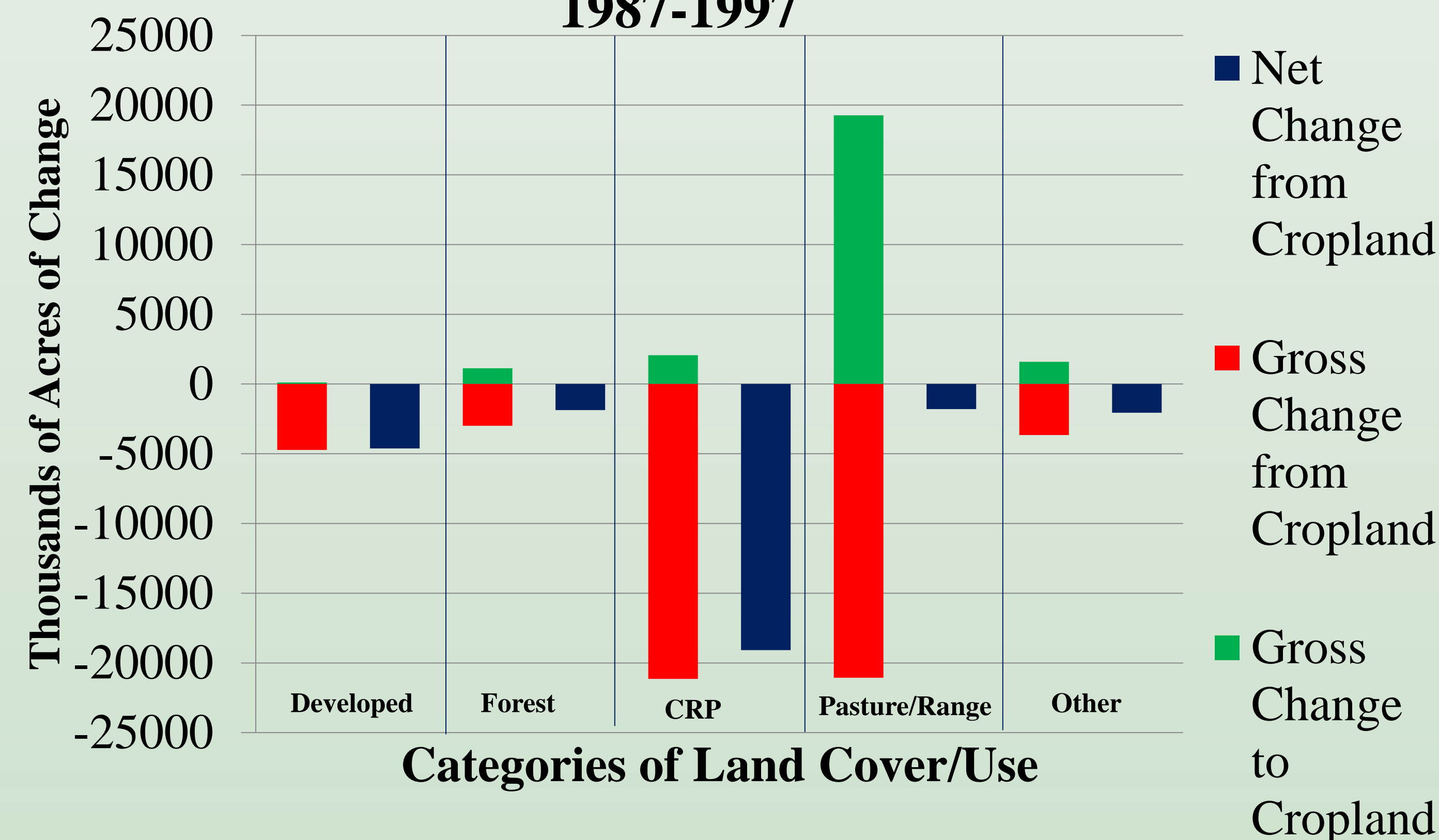
From 1996-2002, USDA baseline projections for total planted acreage of cropland estimated expanding U.S. acreage up to targets for 2006-2013 in the range of 255 to 270 million acres. Beginning in 2003, USDA baseline projections estimated future planted acreage would fall or remain relatively stable, at around 248 million acres. The data on actual total planted acreage showed that the USDA projections tended to overshoot actual planted area and that total acreage of cropland did not significantly change during the 2000-2010 period, when biofuel production increased five-fold.



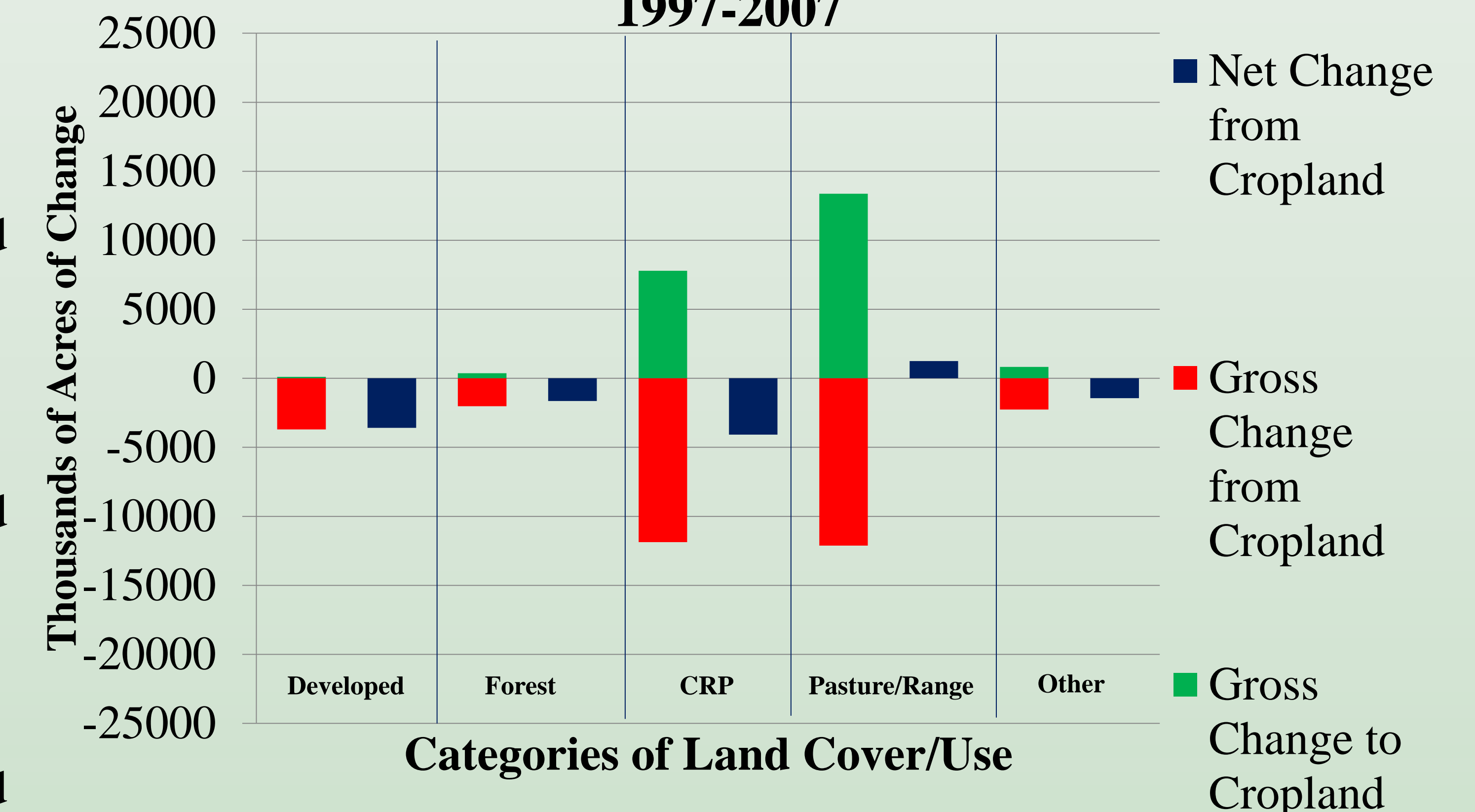
Comparing Net and Gross Changes in Cropland 1987-2007



Comparing Net and Gross Changes in Cropland 1987-1997



Comparing Net and Gross Changes in Cropland 1997-2007



Conclusions

The NRI data examine broad categories of land use and indicate that total U.S. land area dedicated to urban and developed uses grew at the expense of net reductions in total cropland. Total area in forests and pasture categories was relatively stable from 1992-2007, but there were large exchanges (gross change) between cropland and pasture categories. The NRI data show that gross changes and net losses of cropland were consistently larger in the decade preceding biofuel growth (1987-97) than during the past decade. These data suggest that the net loss of cropland to other uses might have been greater in the absence of biofuel incentives to keep farmland in production. In contrast to popular belief, there is no evidence that total U.S. planted area for cropland expanded as a result of the five-fold growth in ethanol production during the past decade. The USDA Baseline reports suggest that weather, global economic growth relative to commodity stocks, USDA farm programs (ARP, CRP, crop insurance, crop loans, disaster payments), exchange rates, and other factors affecting global commodity supply and trade, had more influence on national cropland area trends than biofuel policies. Acknowledgement: this work was supported by DOE Office of Biomass Program. For information contact: klinekl@ornl.gov