

turning knowledge into practice

Effects of the Tobacco Buyout on Production, Farmer Attitudes, and Future Intentions in North Carolina

Presented by

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Study Overview

- Develop survey and collect data from NC tobacco farmers on farm and household characteristics, tobacco production and marketing, and attitudes regarding various programs, policies, and entities affecting tobacco markets
 - Largest tobacco-producing state, about 40% of national production
- Evaluate tobacco farmer attitudes towards and interest in diversification into alternatives to tobacco
- Examine ability of tobacco farmers and tobacco-dependent communities to adjust to changes taking place
- Track changes in attitudes towards tobacco control policies over time
- Evaluate effectiveness of providing information about diversification opportunities and funding sources to tobacco farmers

Quota Buyout

- Removal of quota and price supports
 - More competitive on world markets
 - Greater price risk
 - Geographic relocation
- Elimination of reporting requirements
 - Difficult to obtain good secondary data

Data

- Panel survey of NC tobacco farmers drawn from 14 of the 15 highest-producing counties for flue-cured tobacco in the state
 - Fielded 1997, 1999, 2001, 2004, 2006
- Combined with secondary data on market variables
- HH Characteristics
 - Demographics (age, gender, race), education, tobacco use, self-indicated barriers to diversification, treatment county
- Resource Endowments
 - Total acreage owned, indicator variables for married, children

Data (2)

■ Market Incentives

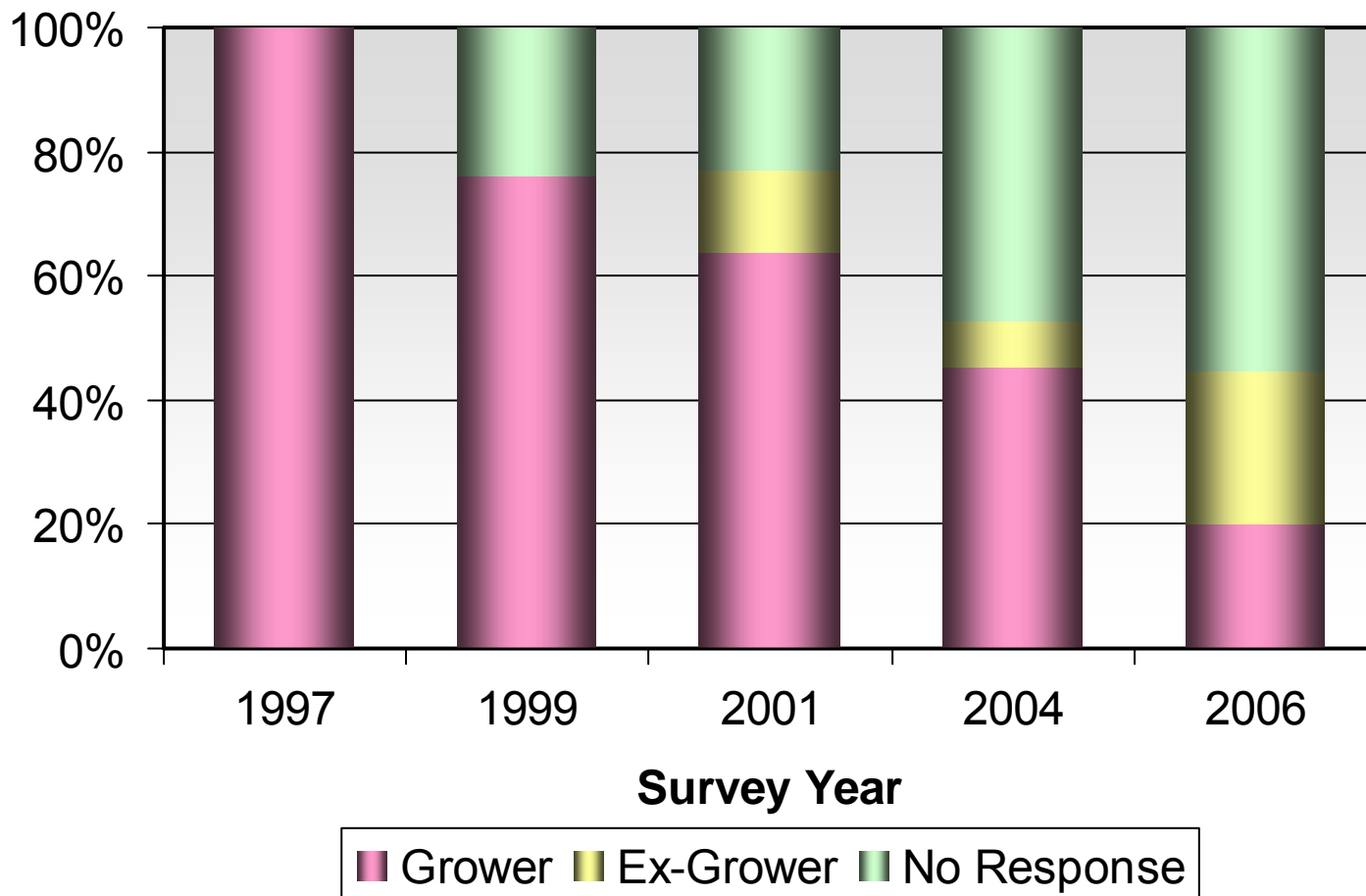
- Expected tobacco revenue per acre, index of expected revenue for other crops, average county wage, quota lease price, indicator variable for proximity to urban county

■ Risk and Uncertainty

- County-level tobacco yield variance, index of yield variance for other crops

■ Time dummies to capture changes in tobacco quotas and other policies impacting tobacco production

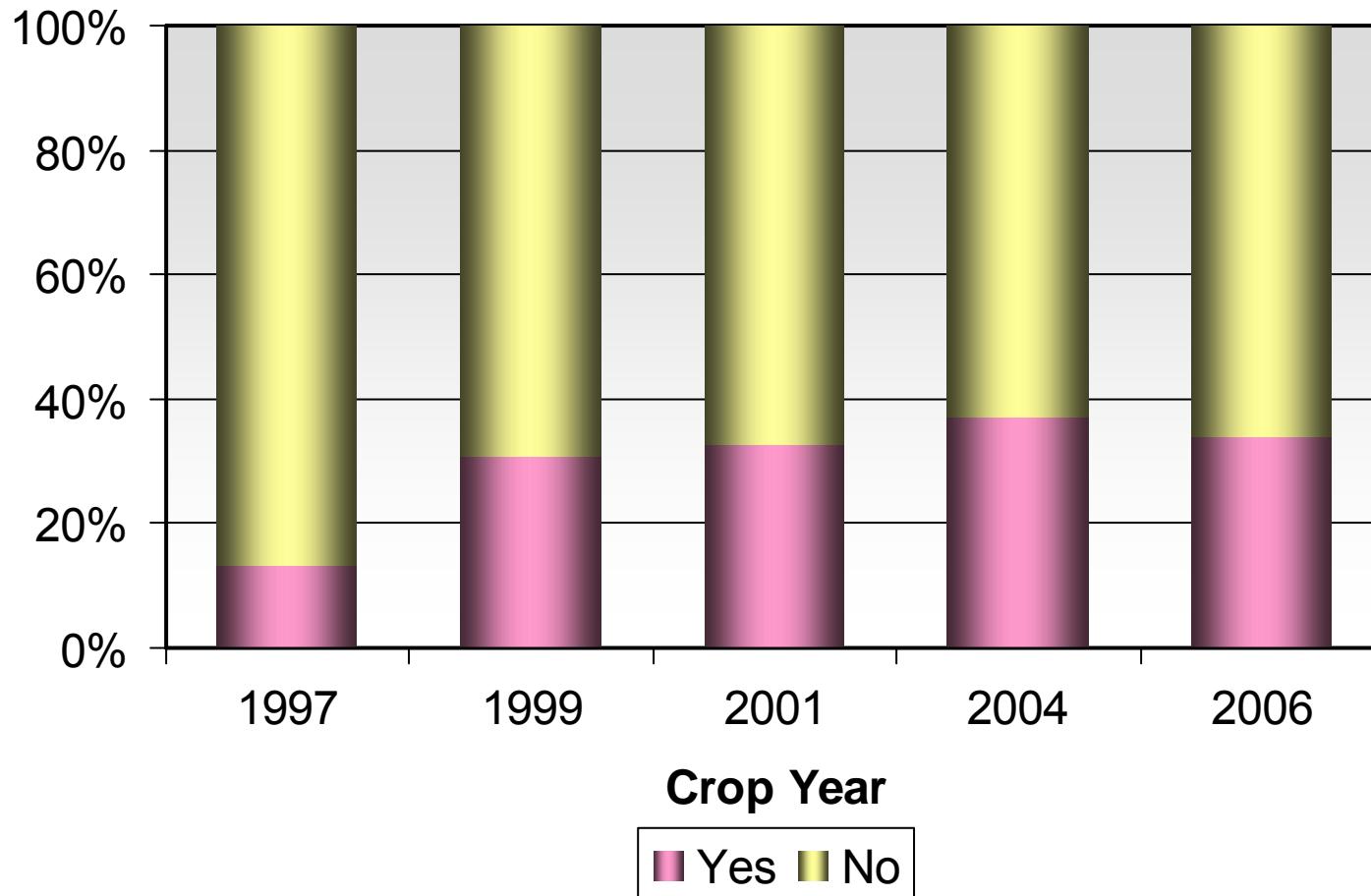
Tobacco Farmer Survey Panel Over Time (N=1,184)



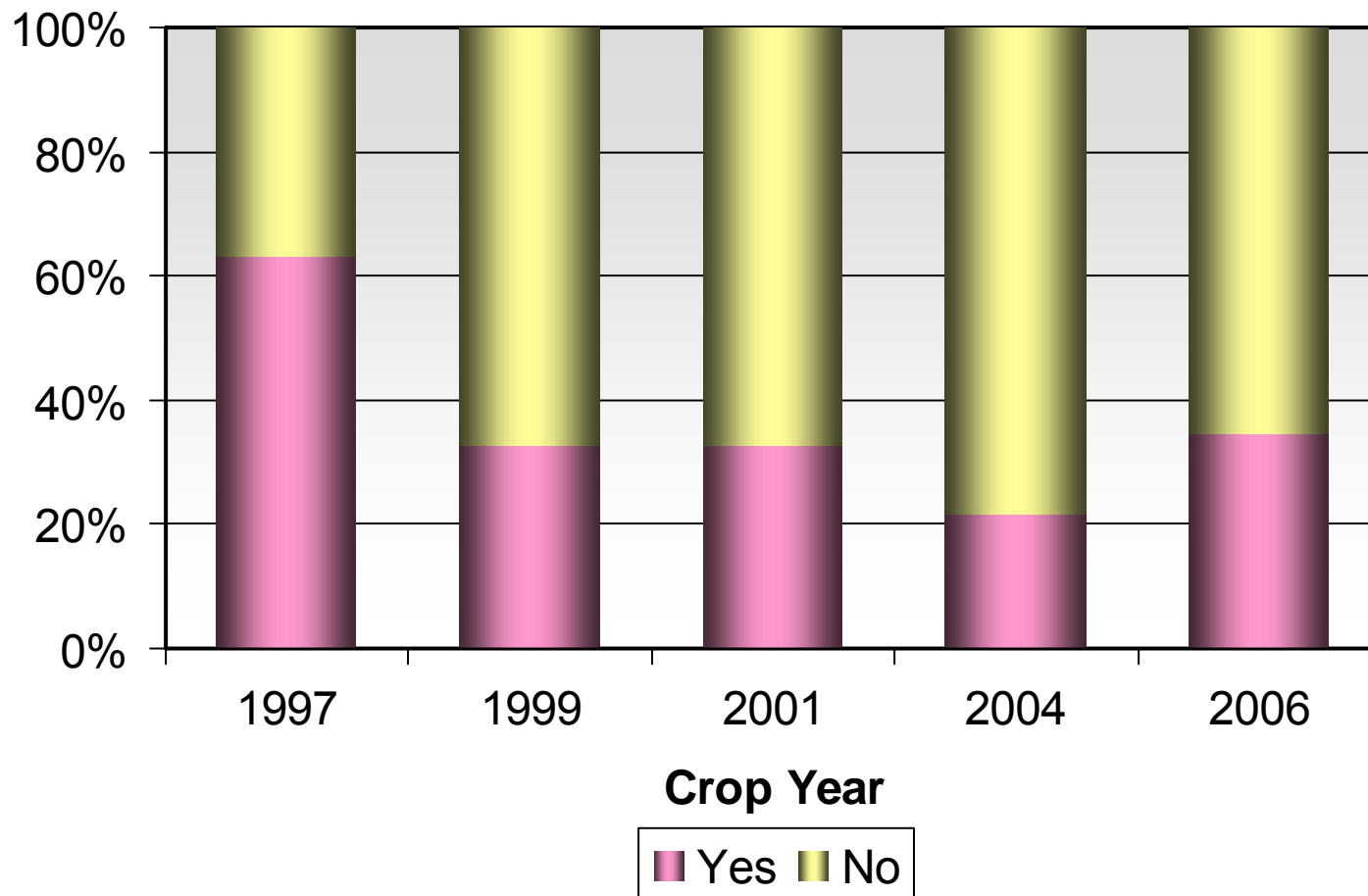
Expectations for Tobacco Production

- In 1997, >90% of the full sample expected tobacco to be grown on their farms in 10 years
- By 1999, only 68% of tobacco farmers expected tobacco to be grown in 10 years
- In 2001, among those remaining growers, back to >80% expected tobacco to be grown in 10 years
- In 2004, 69% of tobacco growers expected tobacco to be grown in 5 years
- In 2006, 76% of tobacco growers expected tobacco to be grown in 5 years

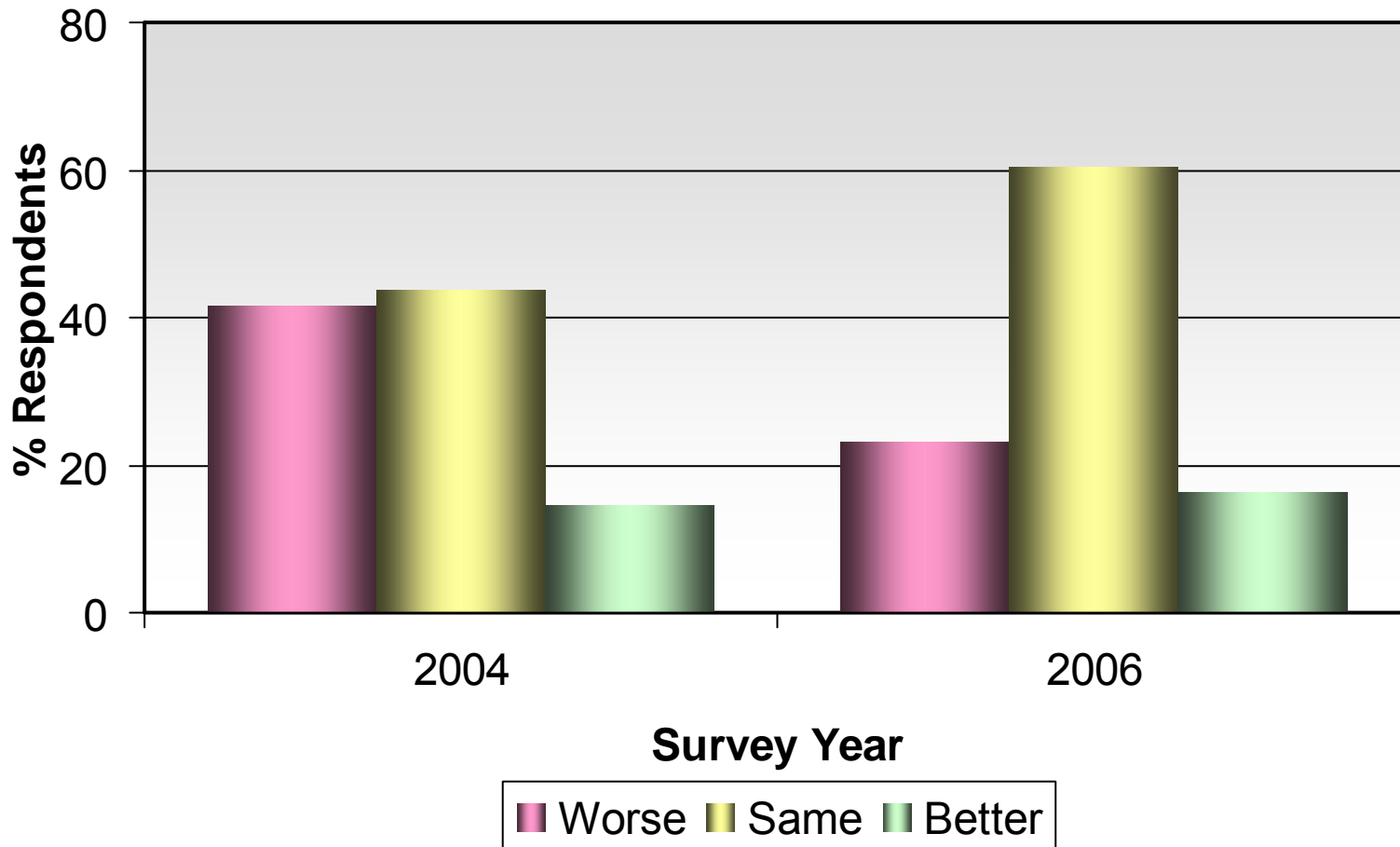
Do You Expect to Give Up Tobacco for Reasons other than Retirement? (Growers)



Would You Advise Your Children to Grow Tobacco? (Growers)



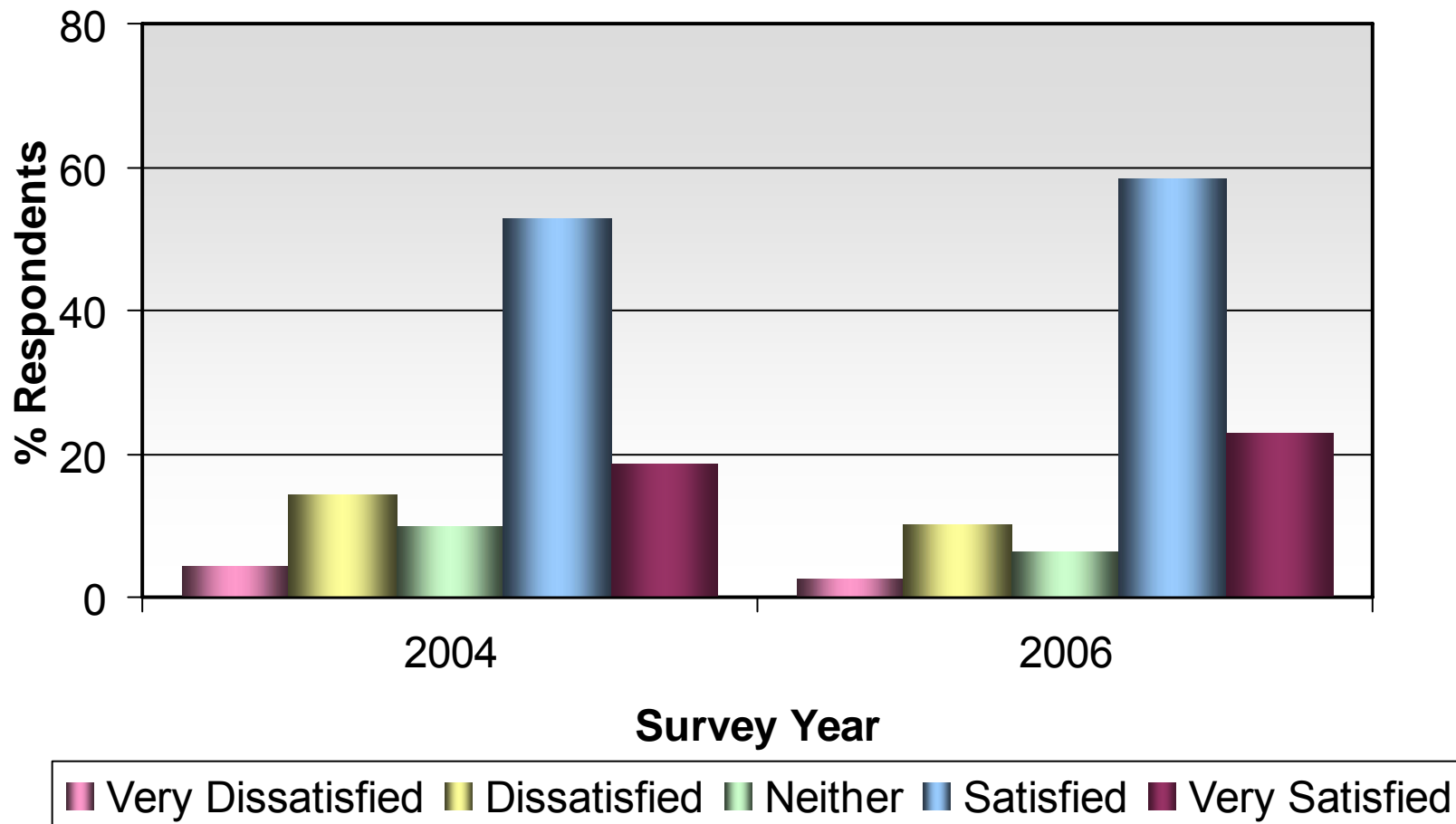
Standard of Living after Exiting Tobacco Production



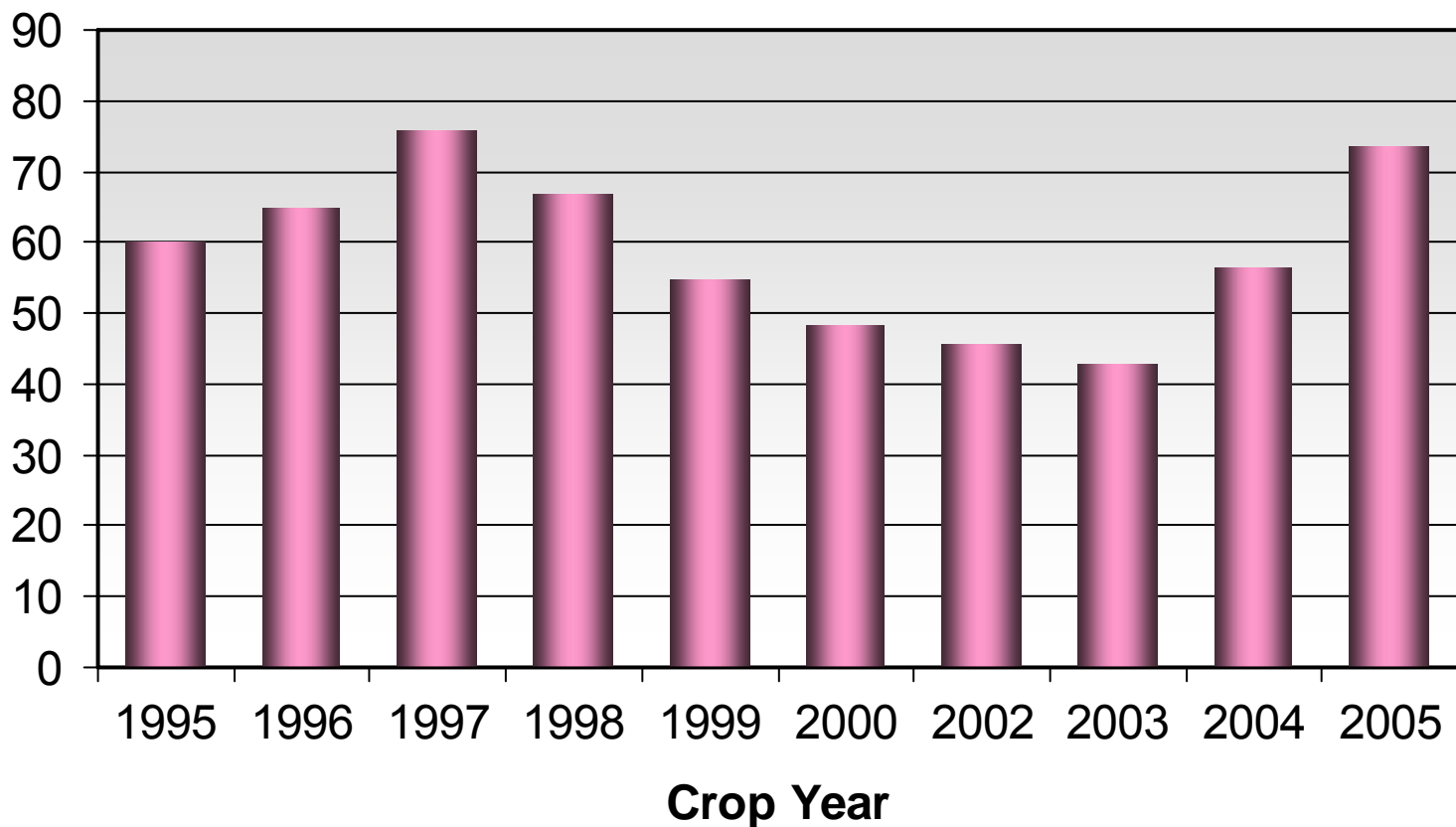
Intentions for Buyout Funds

	1999	2001	2004	2006
Expand/diversify farm	6.5%	7.0%	11.5%	5.7%
Invest in another business	10.5%	12.0%	5.2%	4.7%
Invest in a retirement acct	21.0%	26.7%	26.2%	18.5%
Pay off debts	51.6%	44.7%	39.0%	46.8%
Other	10.4%	9.5%	18.1%	30.4%

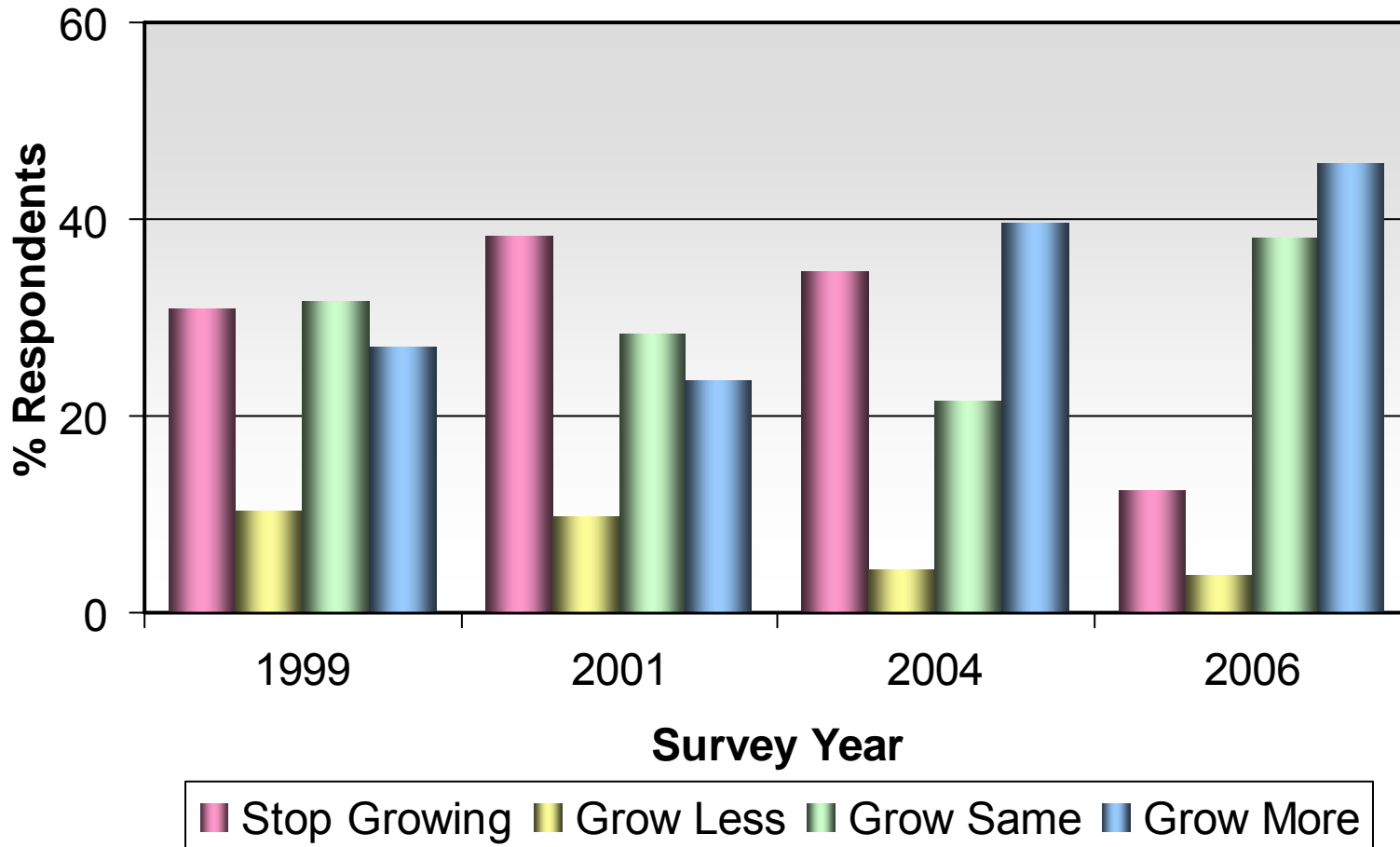
How Satisfied are You with Your Decision to Stop Growing Tobacco? (Ex-growers)



Average Tobacco Acreage Grown by Those Growing Tobacco



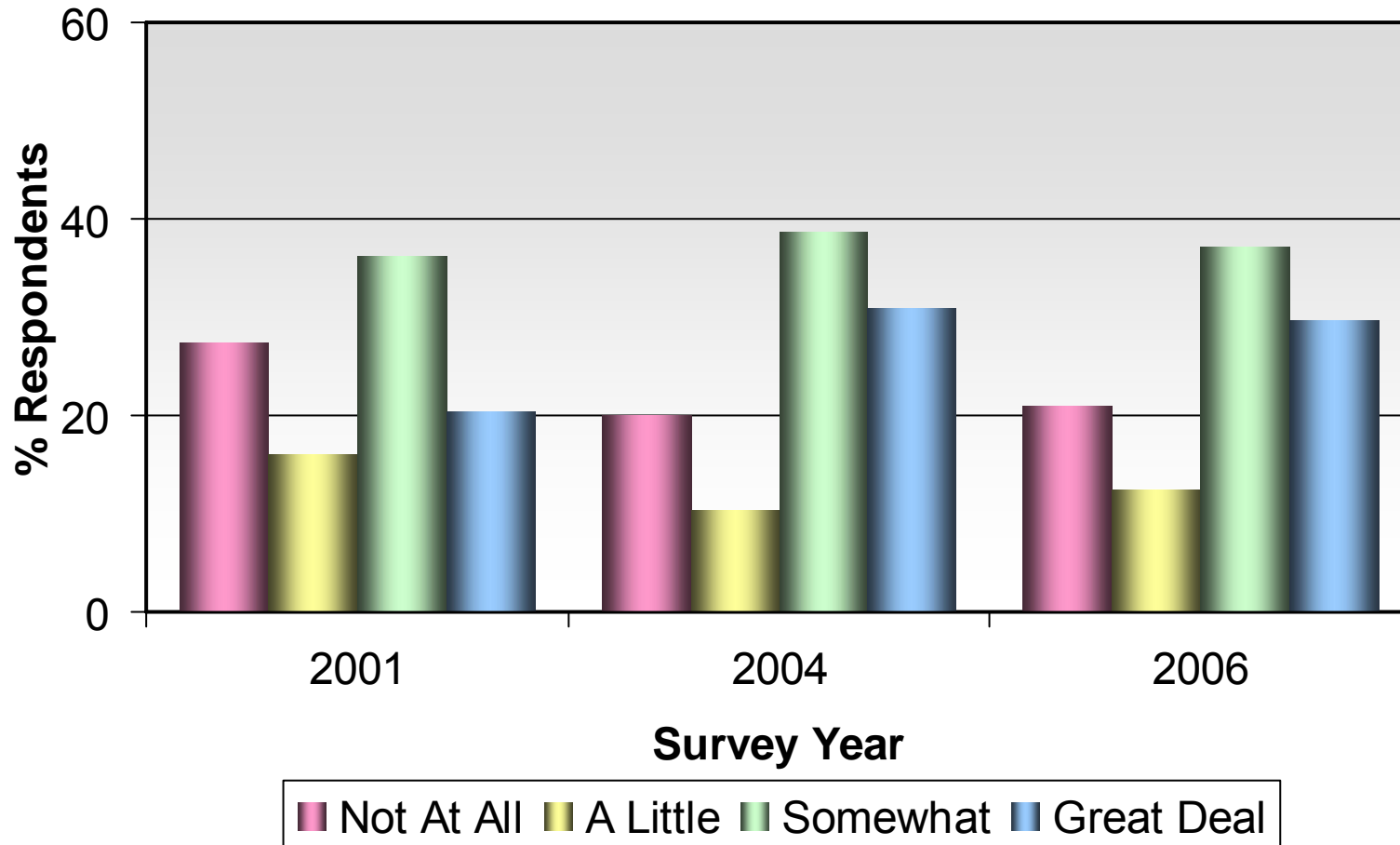
Tobacco Acreage Intentions (Growers)



Acreage Intentions Post-Buyout

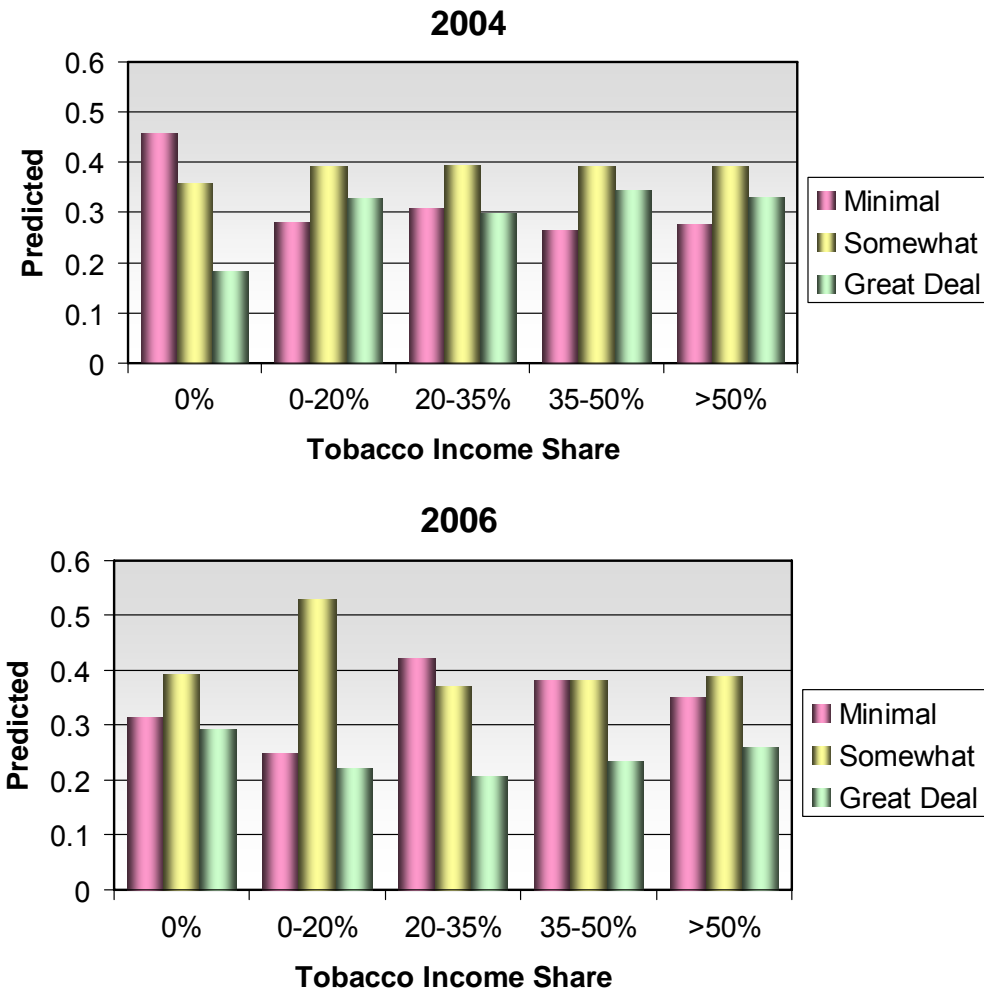
- Those with more acres of tobacco are significantly more likely to indicate they will continue to expand
- Higher levels of education increase the probability that farmers will keep acreage the same or expand
- Farm households with off-farm income are less likely to stop growing tobacco, but also less likely to expand
- Older operators with smaller farms more likely to have exited and more likely to indicate they will exit post-buyout

Tobacco Companies Hurt Farmer Profitability

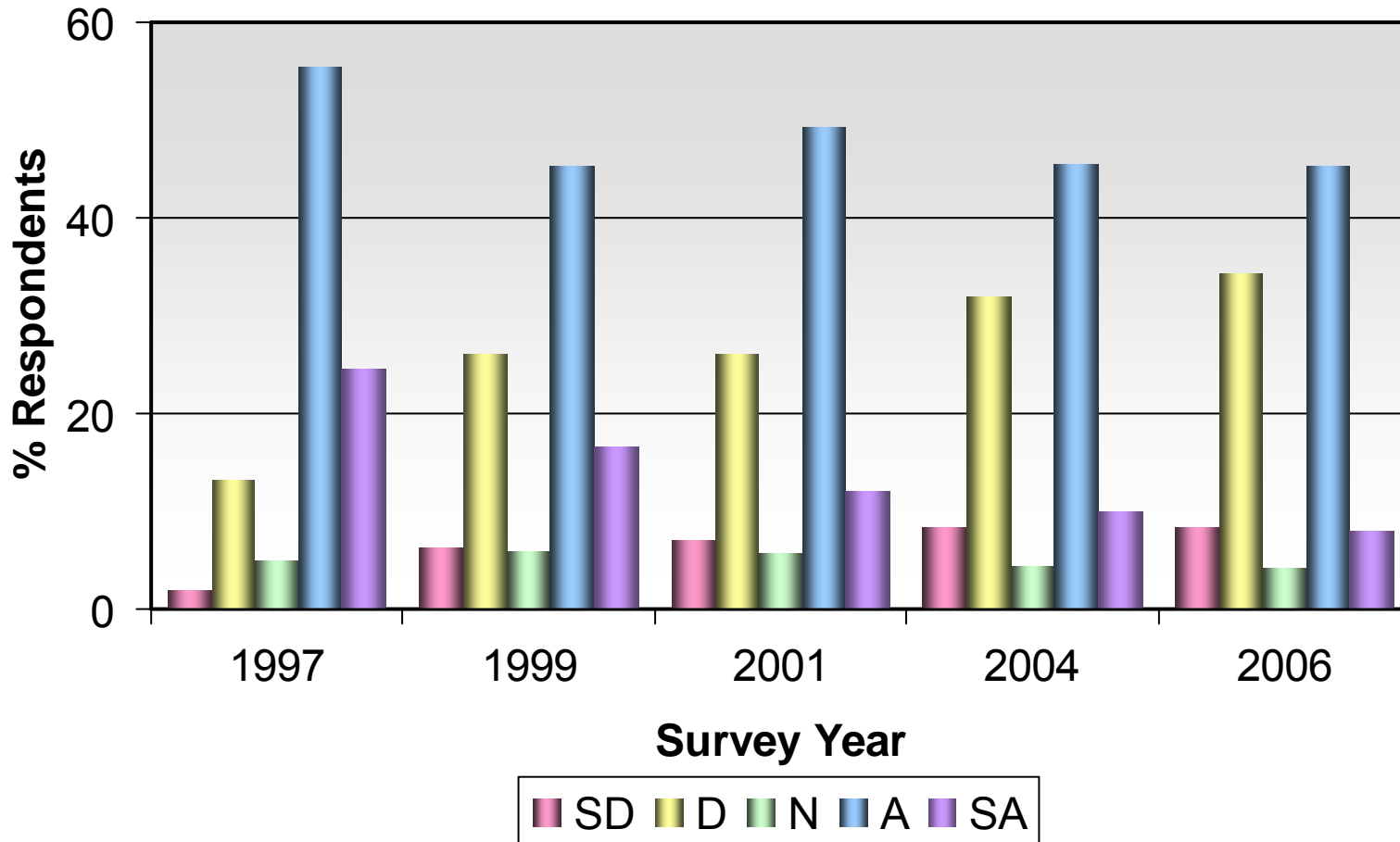


Tobacco Companies Hurt Farmer Profitability

- Those with positive tobacco income share in 2004 more likely to feel tobacco companies hurt profitability
 - Little difference between >0% categories
- In 2006:
 - those with no tobacco income more likely to agree that TMI hurt farmer profitability
 - Those with tobacco income >0% less likely to agree
- No significant effect of political ideology
- Significant positive treatment effect

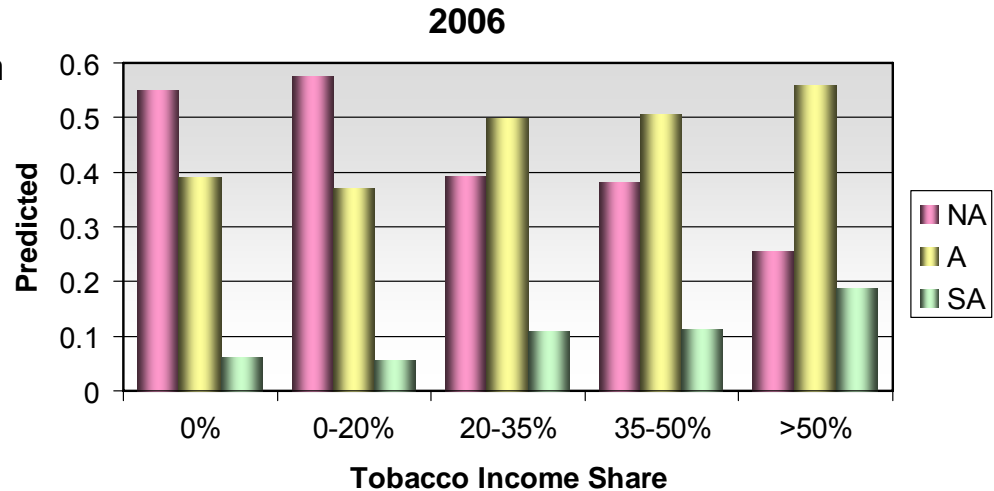
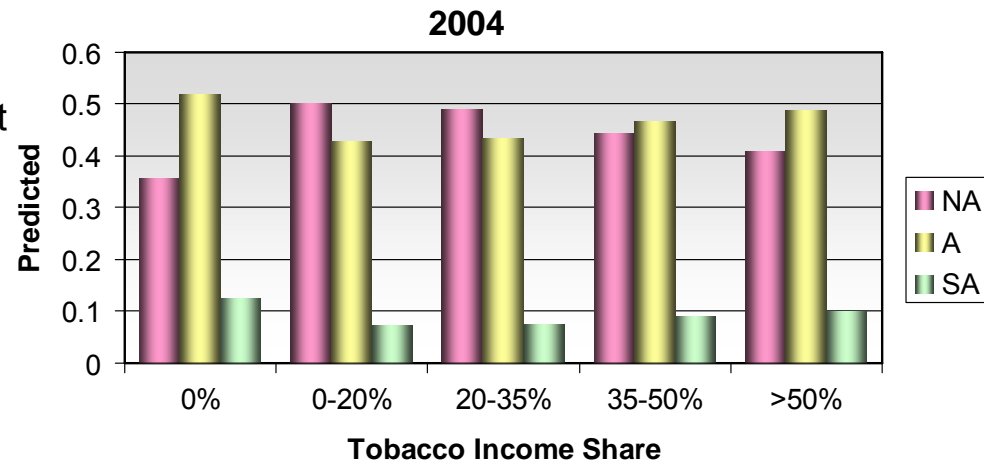


If Companies Do Well, Farmers Do Well

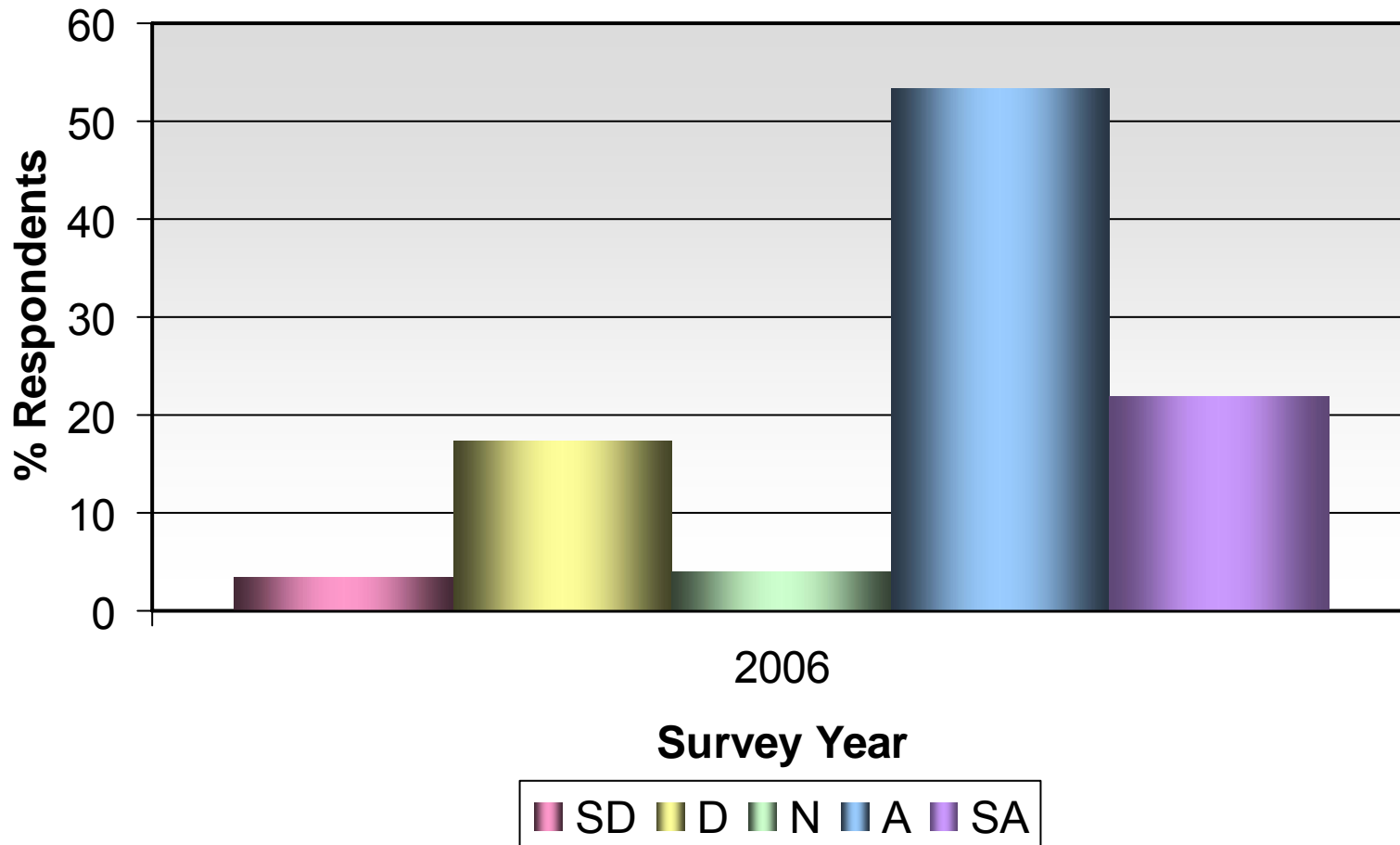


If Companies Do Well, Farmers Do Well

- Slight increase in probability of agreeing at higher income share for shares >0% in 2004
- Between 2004 and 2006, probability of disagreeing
 - increases for those with lower tobacco income shares
 - decreases for those >20%
- Increase in probability with increasing tobacco income share is much stronger in 2006
- Significant positive effect on strongly agreeing of being conservative
- Significant negative treatment effect

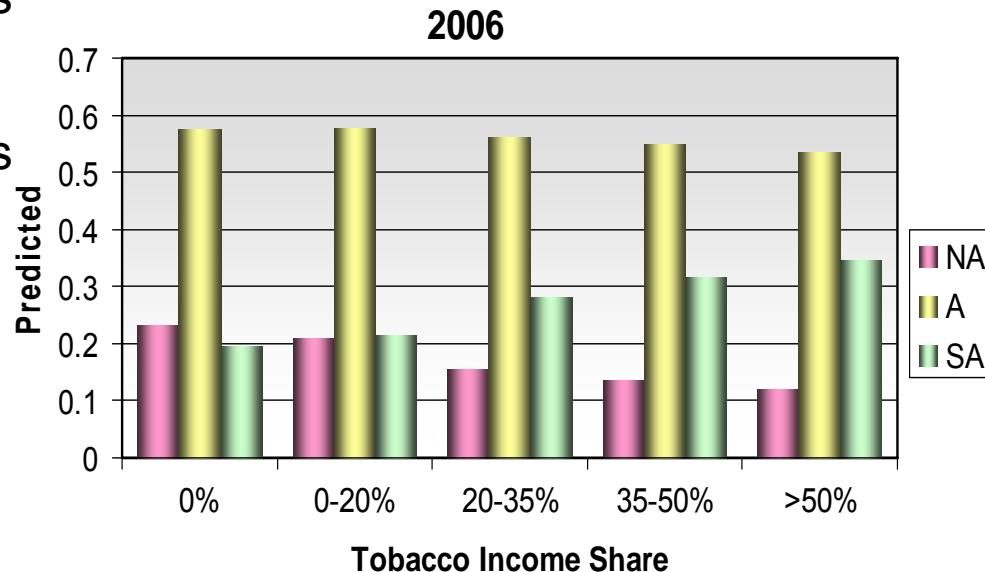


Companies Get Too Much Blame for Youth Smoking

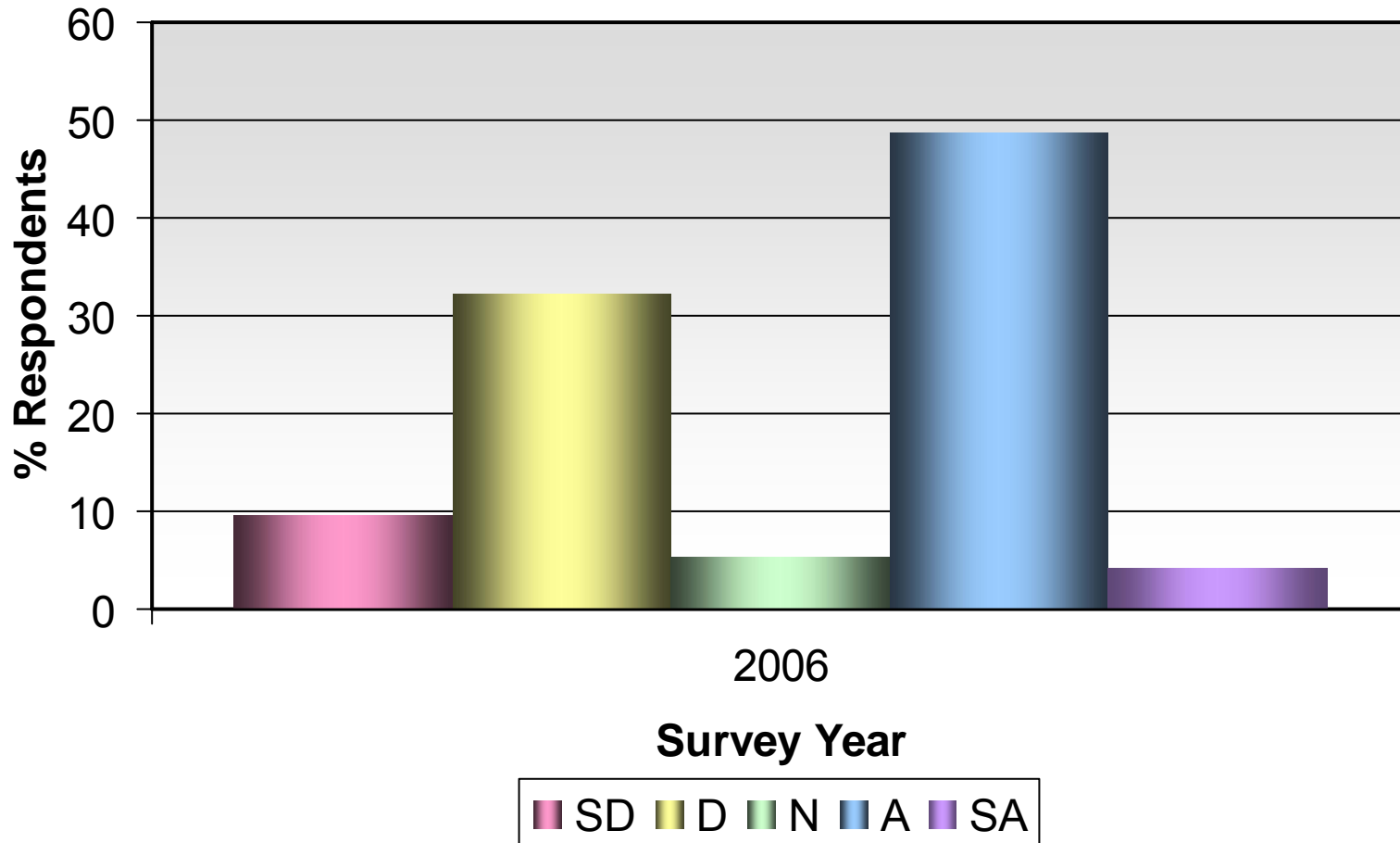


Companies Get Too Much Blame for Youth Smoking

- Probability that respondents will not agree that the TMI get too much blame for youth smoking is significantly lower at higher tobacco income share, while the probability of strongly agreeing is significantly higher
- No significant effect of political ideology
- Significant negative treatment effect

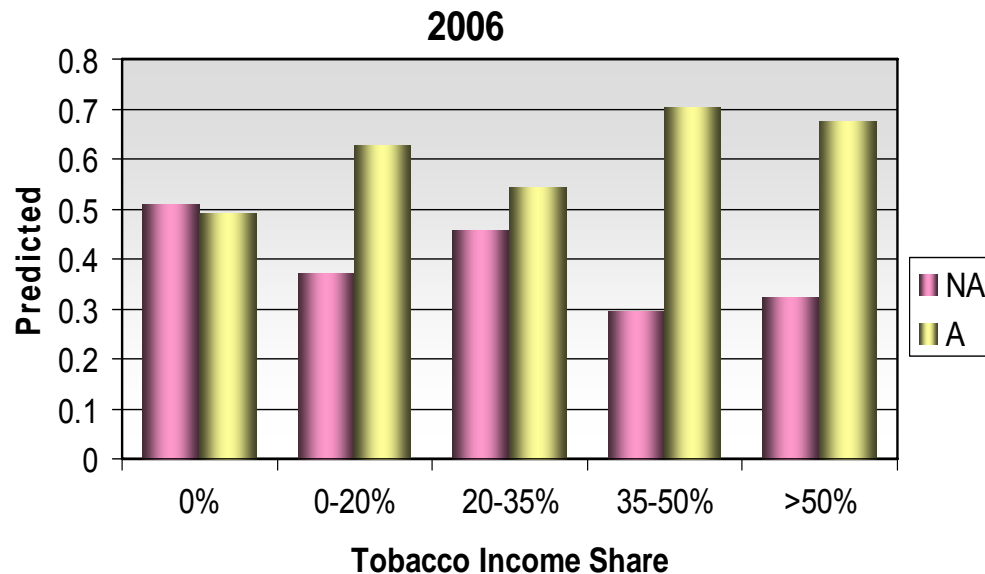


Companies Care About Farmers

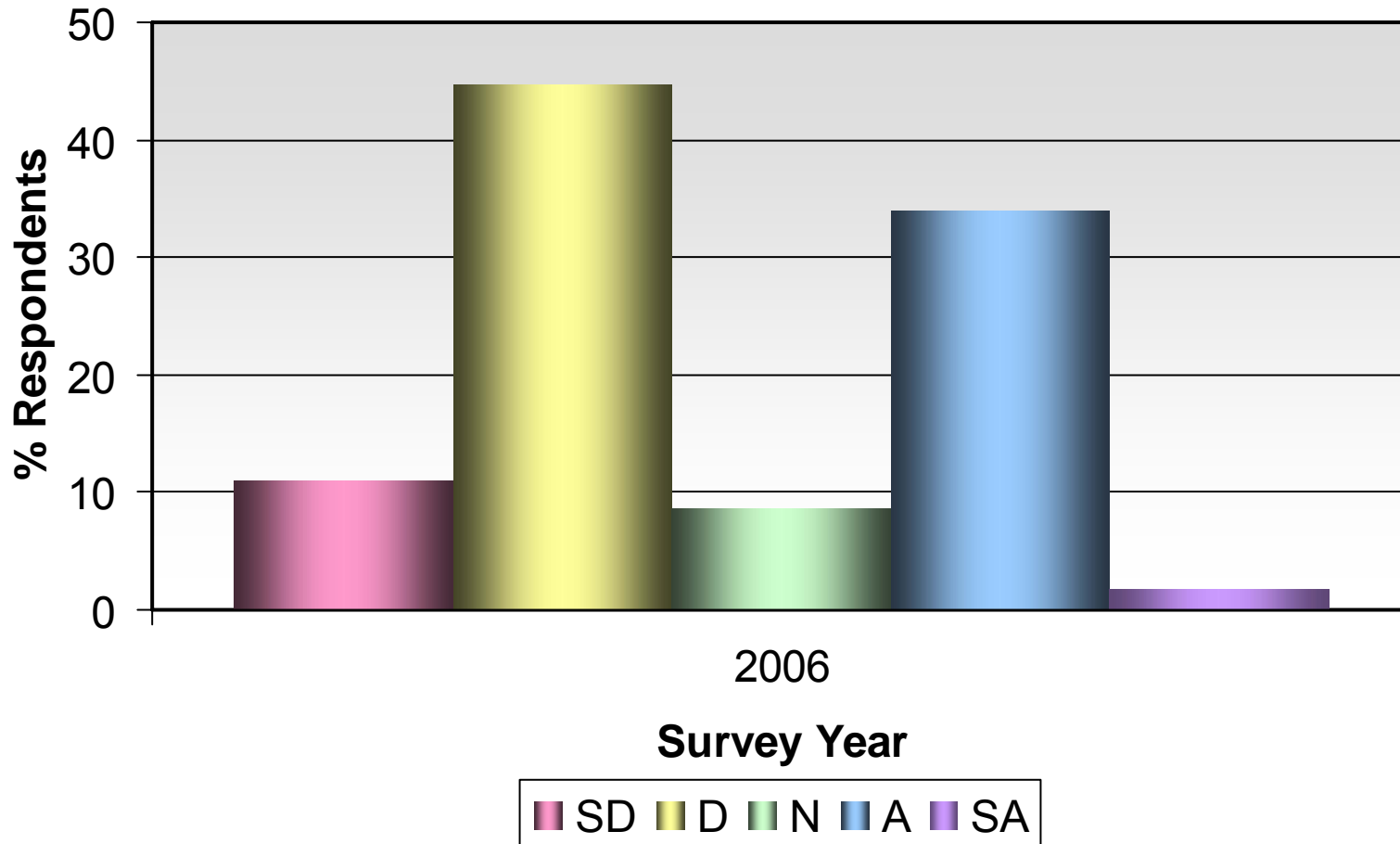


Companies Care About Farmers

- Probability that respondents will agree that the TMI care about farmers generally higher at higher tobacco income shares
- No significant effect of political ideology
- Significant negative treatment effect

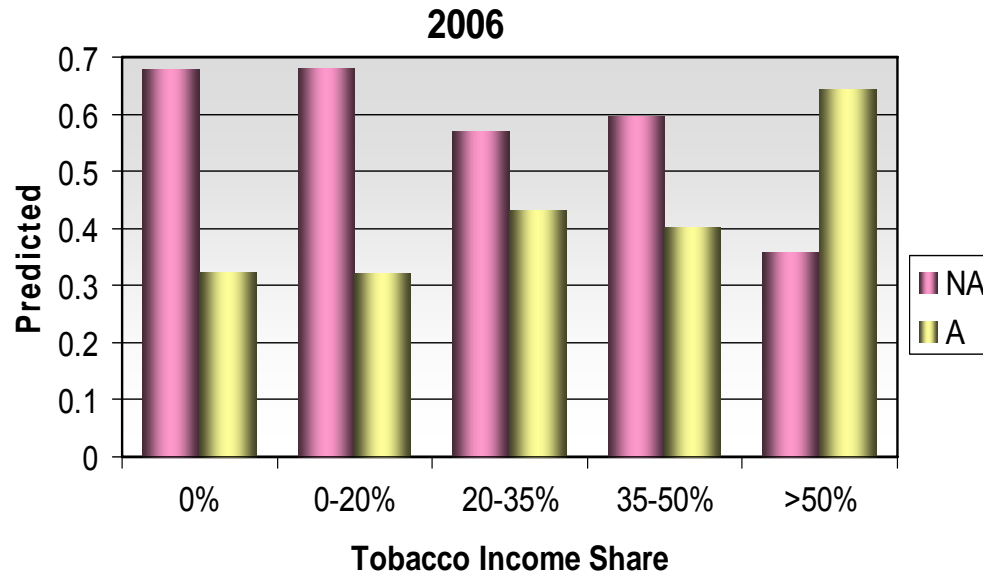


Companies Are Generally Honest



Companies Are Generally Honest

- Probability that respondents will agree that the TMI are generally honest increases with tobacco income share
- No difference between those with no tobacco income and those with <20% share
- No significant effect of political ideology
- Significant negative treatment effect



Grower Attitudes Towards Tobacco Control

- Among those that still derive income from tobacco in the 2004 survey, tobacco income share had no significant effect on their support for:
 - smoking ban at schools
 - enforcement of fines for businesses selling to youthBut it did have a highly significant negative effect on:
 - Support for voluntary restaurant ban on smoking
- There was also a highly significant positive effect of tobacco income share on perceived risk of public smoking restrictions
- Being in a county receiving the tobacco diversification program had significant effects in the expected direction

Conclusions

- Changes taking place in tobacco markets have had a very significant impact on growers' attitudes towards the future of tobacco farming
- Most growers expected and favored a tobacco quota buyout, though they also see greatly increased risk
- Sizable fraction of those remaining in tobacco production anticipate further expansion
- Many growers have exited, especially smaller operations and those with older operators, but tend to be satisfied with that decision
- Level of dependence on tobacco income affects attitudes towards tobacco companies and some tobacco control measures