



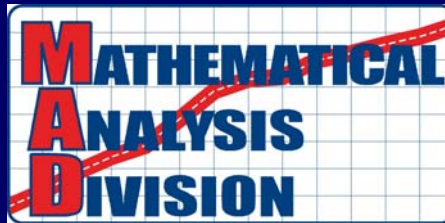
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# *Belt and Helmet Use in 2002*

## *Results from the NOPUS Moving Traffic Study*



2002 NOPUS Moving Traffic Study Results

September 2002



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# Contents

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- **Quick Review of the NOPUS**
  - ◆ Moving Traffic Study
  - ◆ Controlled Intersection Study
- **Results from 2002.**
  - ◆ Main findings and trends.



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# Quick Review of NOPUS

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- The only probability-based, observational survey of the nation's belt use.
- Conducted in two "studies".
  - ◆ Moving Traffic ←———— Current Results
    - Belt and helmet use.
    - 2,000 sites: 150,000 passenger vehicles, 900 motorcycles.
  - ◆ Controlled Intersection
    - Child seat use and demographic detail on belt use.



# Moving Traffic Data Collection - Belts

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## Observe

shoulder belt use

of driver and Right Front passenger

in passenger vehicles

from roadside, exit ramp, or moving vehicle

◦ moving vehicles and ramps for interstates

during daylight hours.



# Moving Traffic Data Collection - Helmets

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## Observe

use of legal (FVMSS 218-compliant) and illegal helmets

of driver and passenger

from roadside, exit ramp, or moving vehicle

◦ moving vehicles and ramps for interstates

during daylight hours.



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# Issues Affecting Estimates

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- Daylight observation
- Shoulder belt use
- Driver and Right Front passenger
- Exit ramps
- When data is collected
  - ◆ June 3, 2002 - June 22, 2002
    - 2-4 weeks after belt campaigns



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# Results



# Major Findings from 2002 Survey Show...

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- **National belt rate: 75%**
  - ◆ 92% confident that use increased from 2001.
    - Margin of Error = 2.4 percentage points
  - ◆ Trend is statistically significant.
- **Primary states reach 80% milestone.**
- **Belt use increased in**
  - ◆ Northeast
  - ◆ Vans and SUVs
- **Sharp decline in helmet use.**

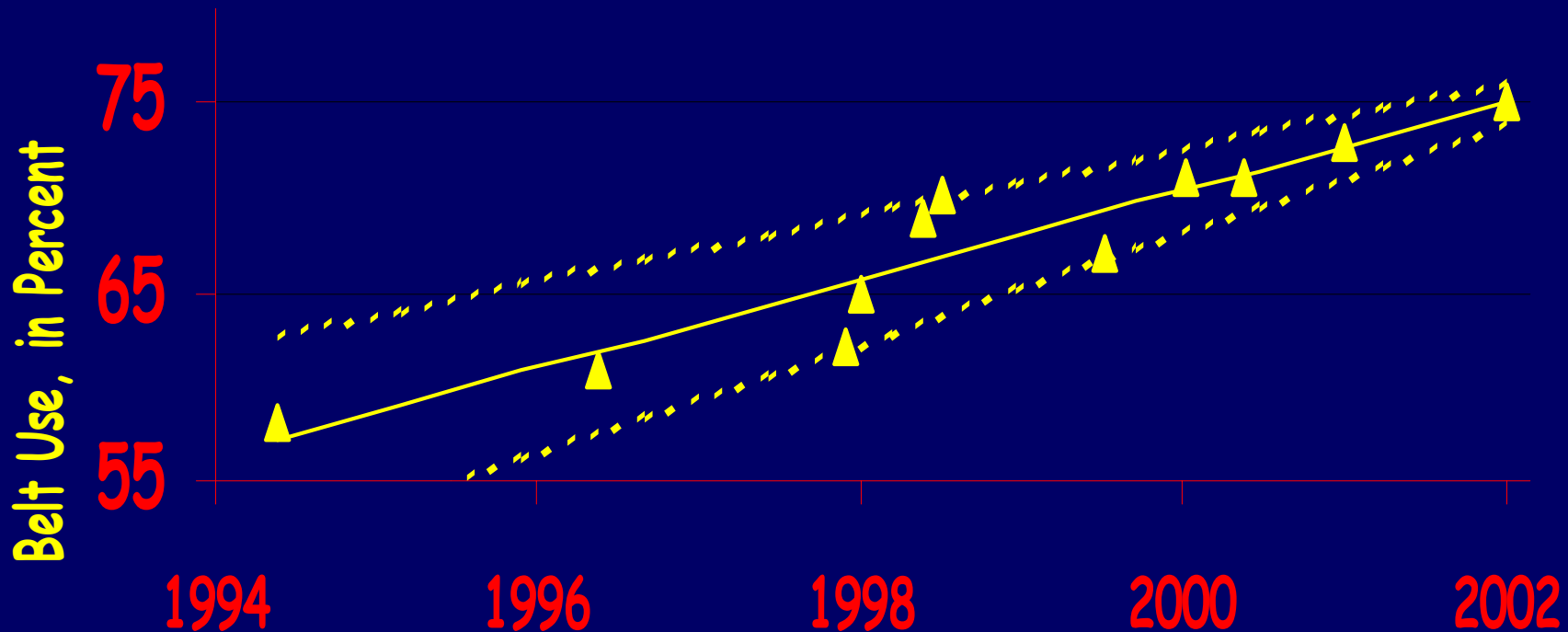




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# Belt Trend is Significant

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— Belt Use Trend      ······ 95% Confidence Bound

# Belt Use Rates, by Survey Period

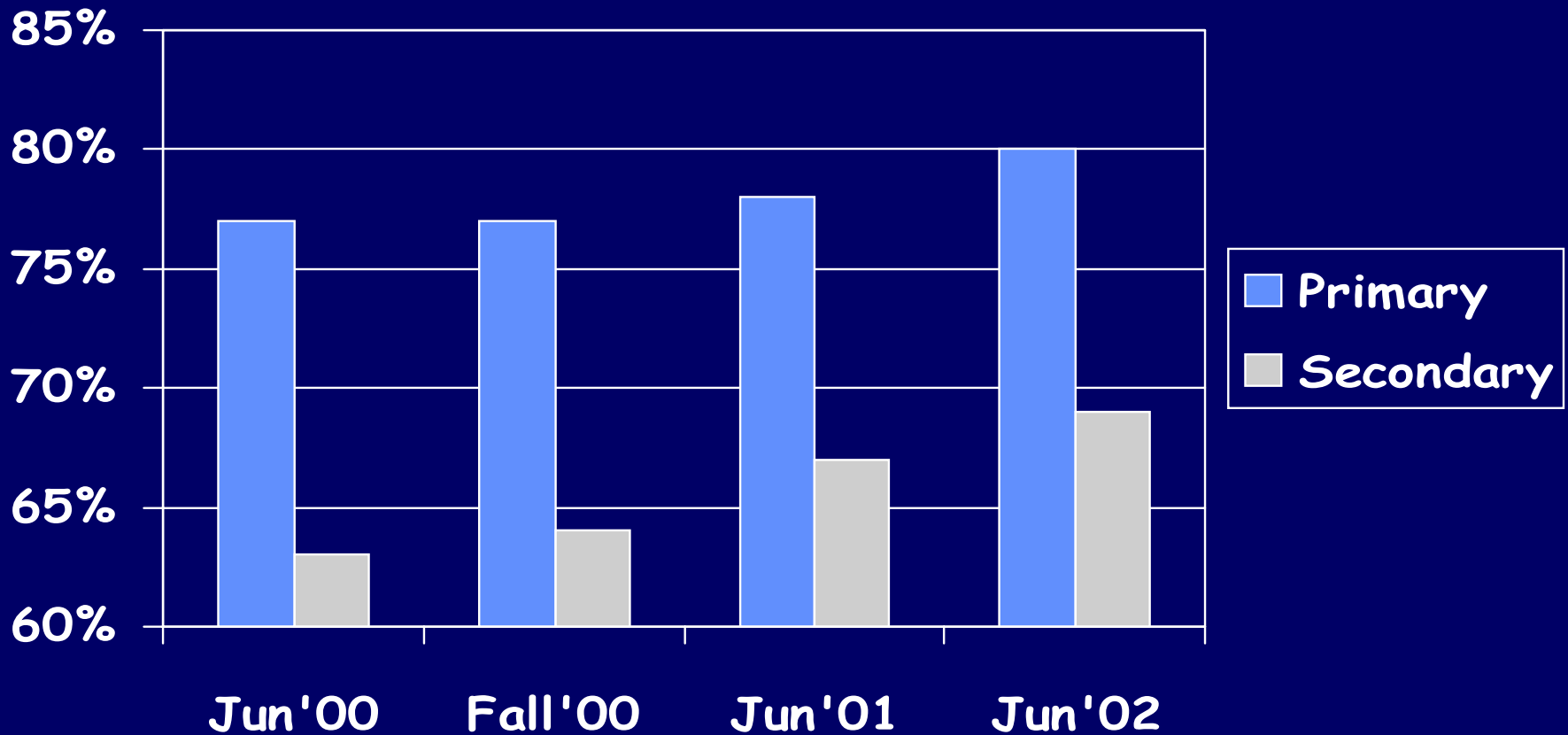
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Survey Period	Use	Change, in ppts	Survey Period	Use	Change, in ppts
Fall 94	58%	--	Dec 99	67%	-3
Fall 96	61%	3	Jun 00	71%	4
May 98	62%	1	Fall 00	71%	0
Jun 98	65%	3	Jun 01	73%	2
Fall 98	69%	4	Jun 02	75%	2
Dec 98	70%	1	Jun 03 target	78%	3

# Primary States Reach 80% Milestone

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All primary-secondary differences are significant.



# Primary States Are 11 Points Higher Than Secondary States

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Survey Period	Type of Seat Belt Use Law			
	Primary		Secondary	
	Use	Change, in ppts	Use	Change, in ppts
Jun 00	77%	--	63%	--
Fall 00	77%	0	64%	1
Jun 01	78%	1	67%	3
Jun 02	80%	2	69%	2

None of these year-to-year changes are significant.

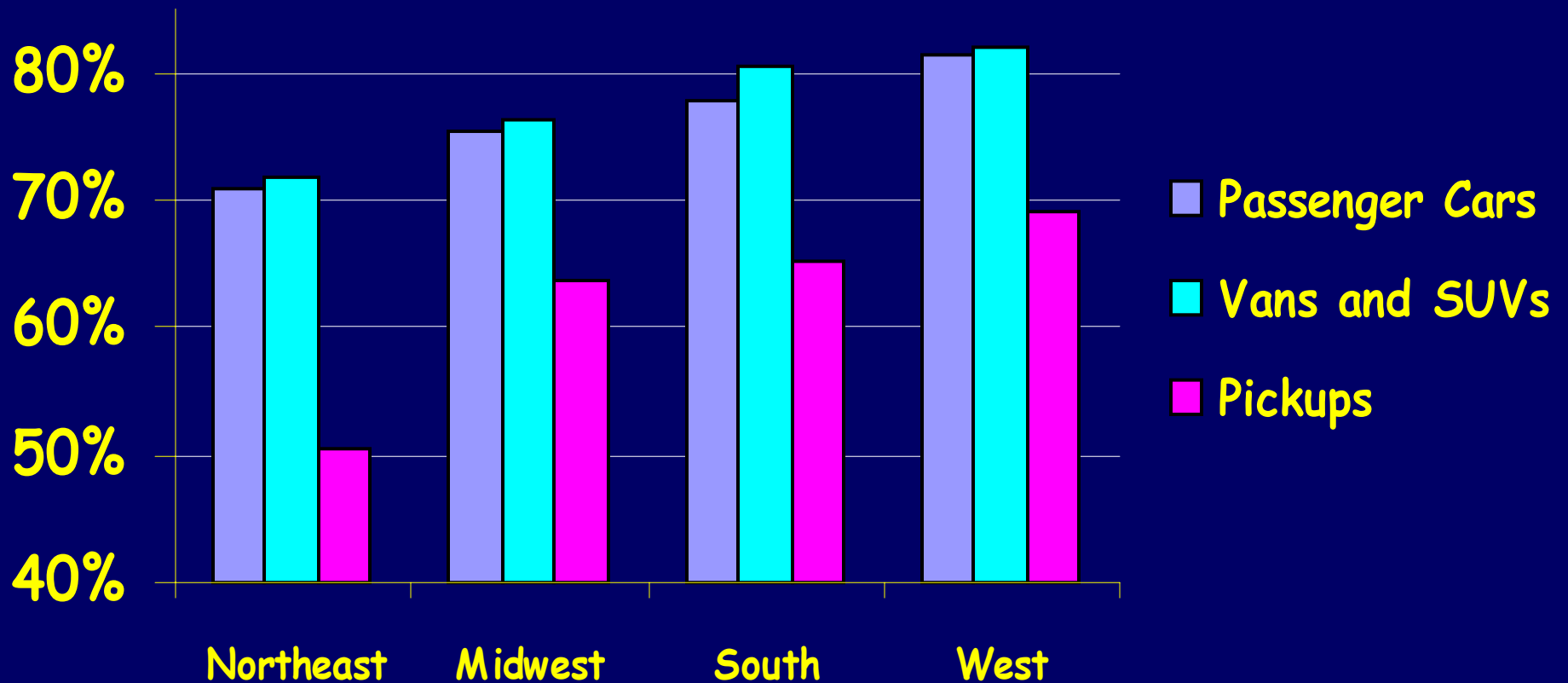
# Belt Use Increased in the Northeast

Estimate	2002 Use	Change, in ppts
Northeast	69%	8
Midwest	74%	2
South	76%	0
West	79%	2

Statistically significant increase in Northeast.  
No other changes are significant.

# Northeast Now Closer to Other Regions

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- Northeast had been lower than all. Now the only significant pair-wise difference is Northeast - West.

# Belt Use Increased in Vans and SUVs

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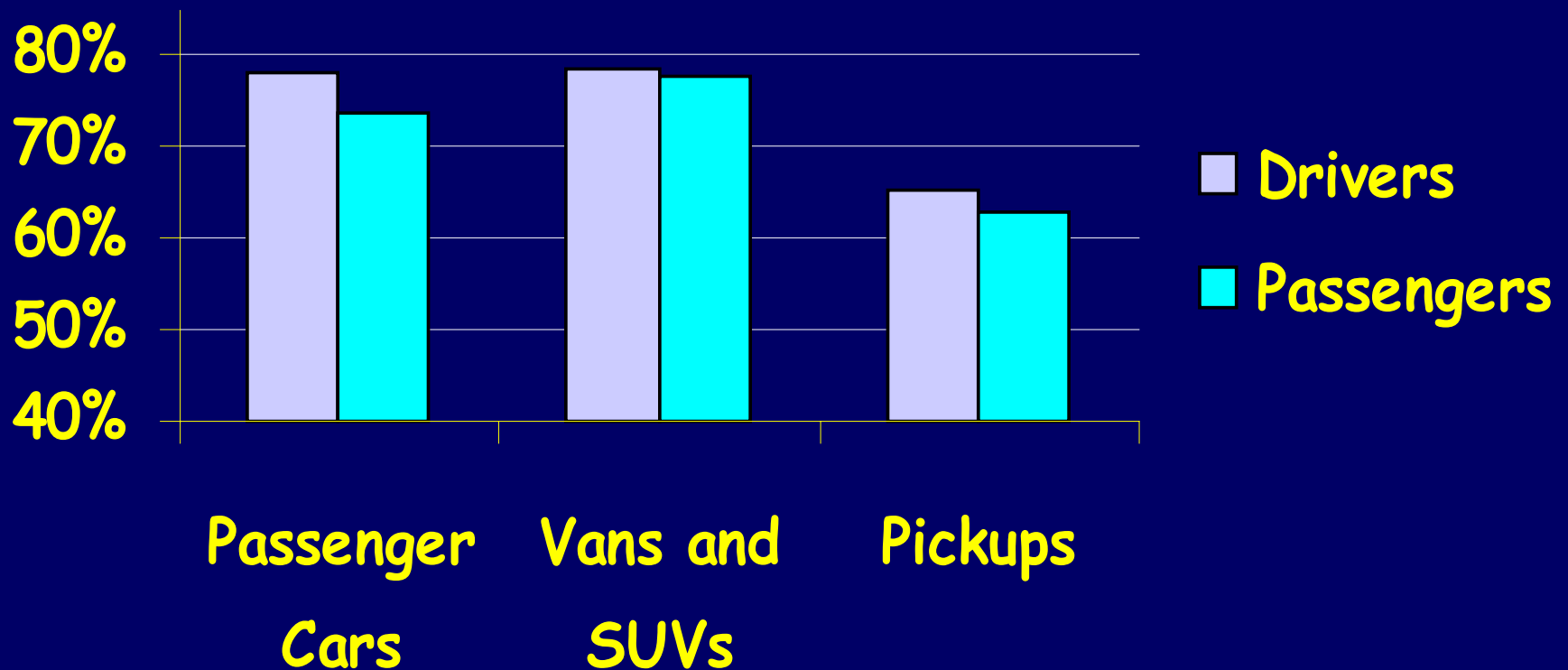


Estimate	2002 Use	Change, in ppts
Pass Cars	77%	1
Vans and SUVs	79%	4
Pickups	65%	3

Statistically significant increase in Vans and SUVs.  
No other changes are significant.

# Vans and SUVs Still Comparable to Passenger Cars

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Pickups still significantly lower.





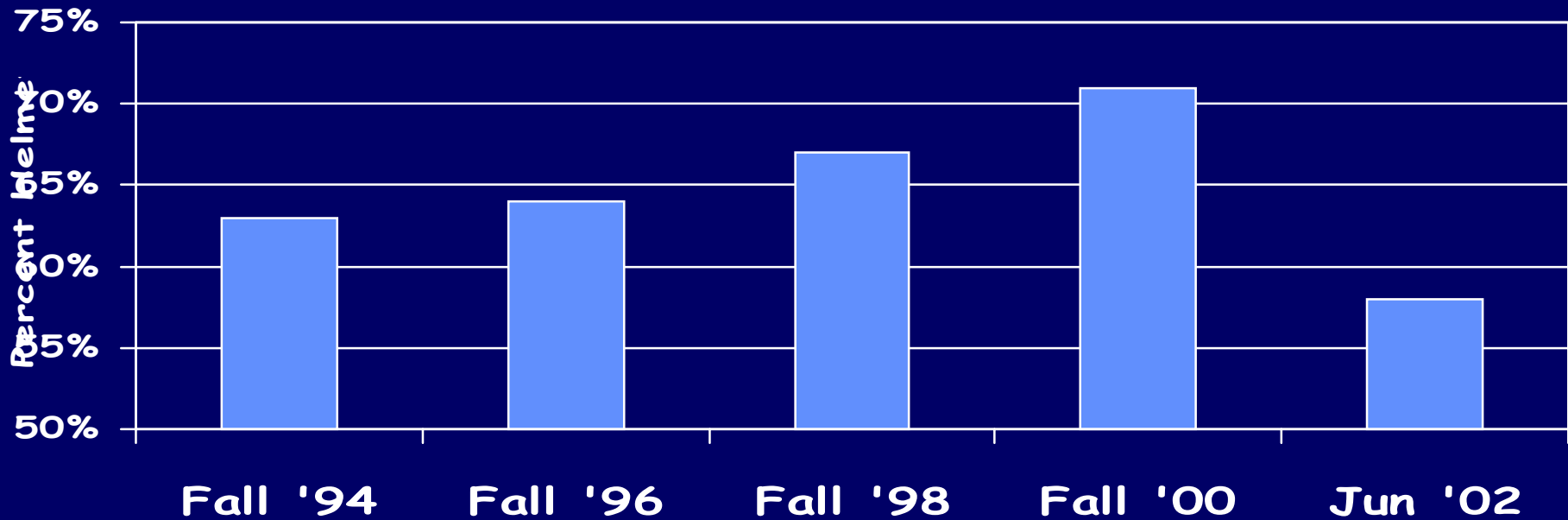
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# Sharp Decline in Helmet Use

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### Motorcycle Helmet Use, by Survey Period



- **Fall '00 to June '02 Change -- Statistically significant**
- **What use means:**
  - ◆ 1994: wearing *any* helmet.
  - ◆ 1996 and later: only FMVSS 218-compliant ("legal") helmets.

# Spring Observation May Have Contributed to Decline

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Estimate	Use	Change, in ppts
Fall 1994	63%	
Fall 1996	64%	2
Fall 1998	67%	3
Fall 2000	71%	3
June 2002	58%	-13

Significant decline in 2002. No other changes are significant.

- **What use means:**

- ◆ 1994: wearing *any* helmet.
- ◆ 1996 and later: only FMVSS 218-compliant ("legal") helmets.



# Helmets: Significant Drops for Drivers and Passengers

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Estimate	2002 Use*	Change, in ppts
Drivers	59%	-13
Passengers	48%	-14
Legal	58%	-13
Illegal	14%	0
None	28%	13

\*When not specified, helmet use refers to legal helmets.

Red: Statistically significant declines.



# Helmets: Large Observed Drop in West

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Estimate	2002 Use	Change, in ppts
Northeast	65%	-13
Midwest	54%	-11
South	62%	0
West	52%	-29
Weekday	58%	-13
Weekend	57%	-13
Rush Hour	58%	-14
Non-Rush	58%	-13

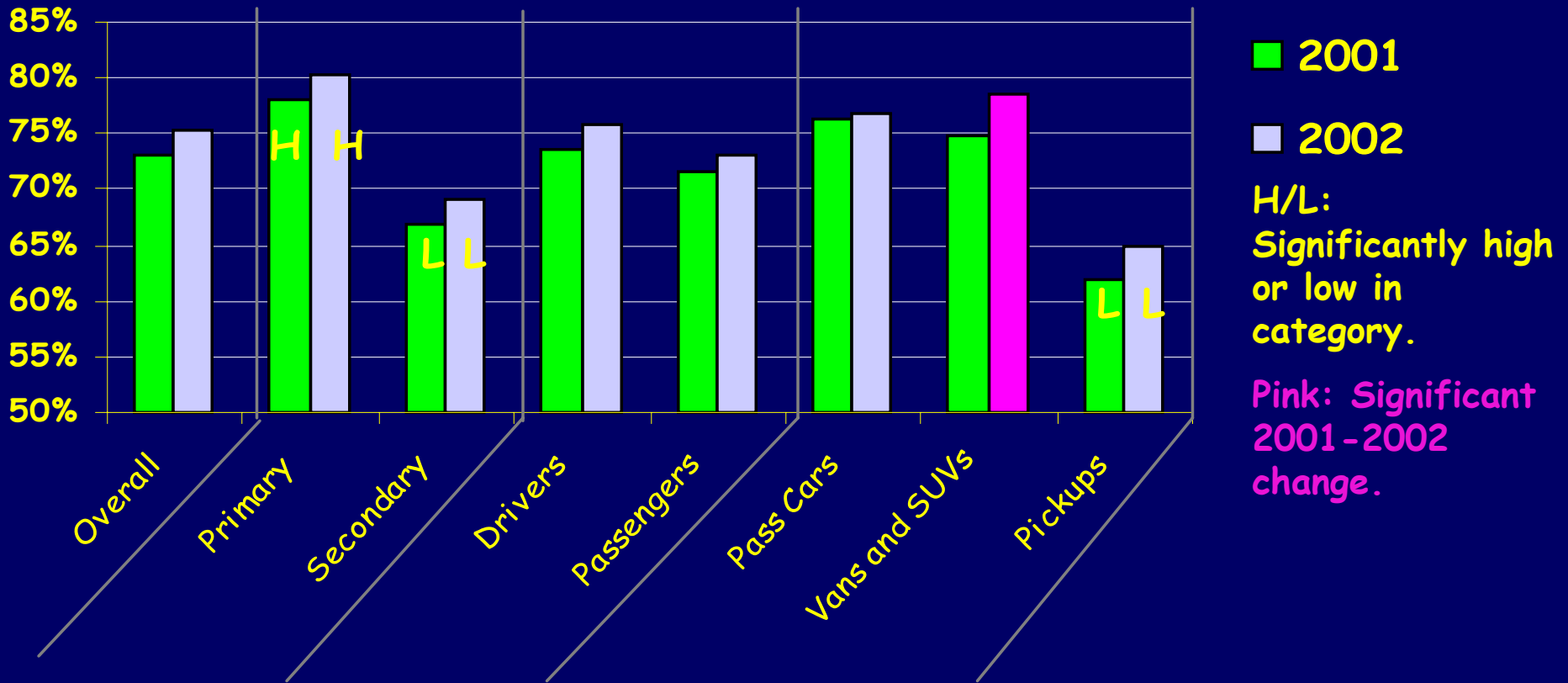
None of these changes are significant. (Small sample size.)



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# Belt Use Factors

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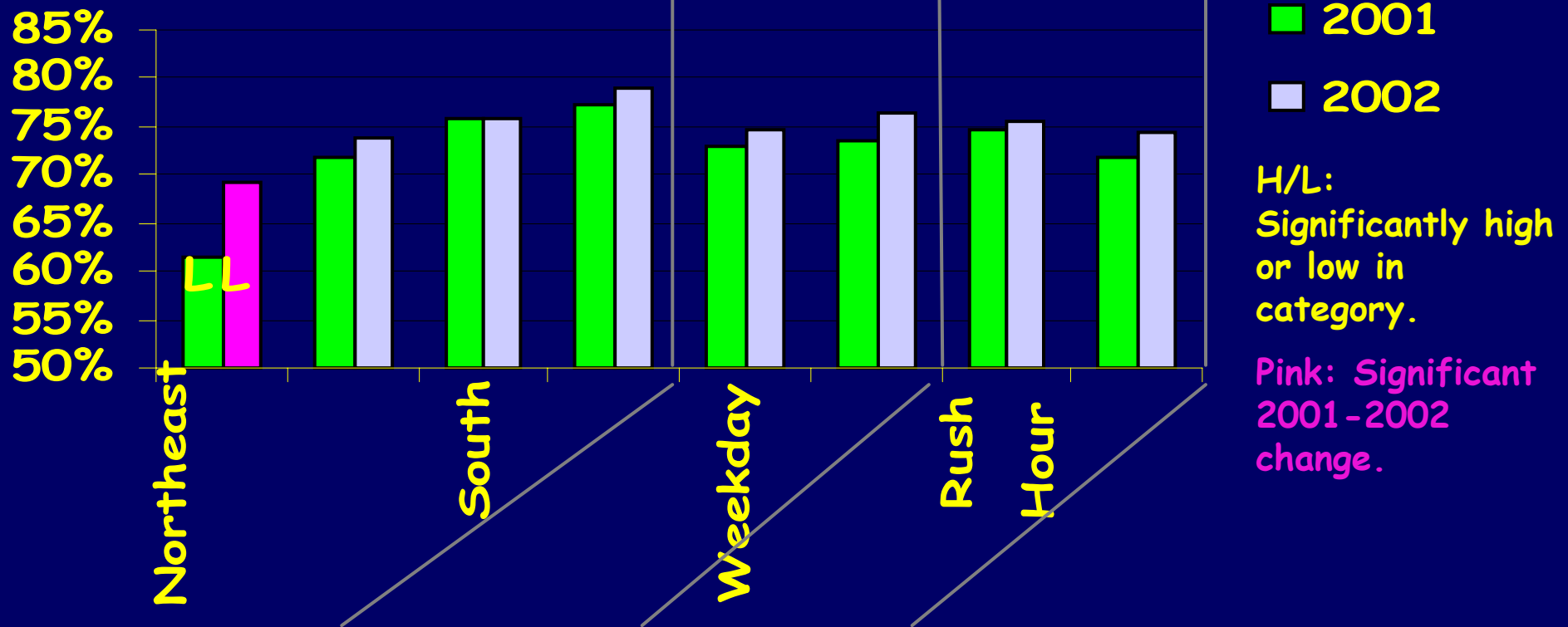
- Enforcement and vehicle type are significant factors.
- Use increased significantly in Vans and SUVs.



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# Belt Use Factors

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- Significant increase in use in the Northeast. Only remaining pairwise difference is Northeast-West.
- No time-of-day or time-of-week differences.



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# Belt Use Factors - Rates

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Estimate	2002 Use	Change, in ppts
Overall	75%	2
Primary	80%	2
Secondary	69%	2
Drivers	76%	2
Passengers	73%	2
Pass Cars	77%	1
Vans and SUVs	79%	4
Pickups	65%	3

Significant increase in Vans and SUVs.



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# Belt Use Factors - Rates

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Estimate	2002 Use	Change, in ppts
Northeast	69%	8
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Weekday	75%	2
Weekend	76%	3
Rush Hour	76%	1
Non-Rush	74%	2

Significant increase in Northeast.





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*Questions about the data in this  
report may be sent*

*by E-Mail to:*

*[ncsaweb@nhtsa.dot.gov](mailto:ncsaweb@nhtsa.dot.gov)*

*or*

*made by phone to:*

*1.800.934.8517*