

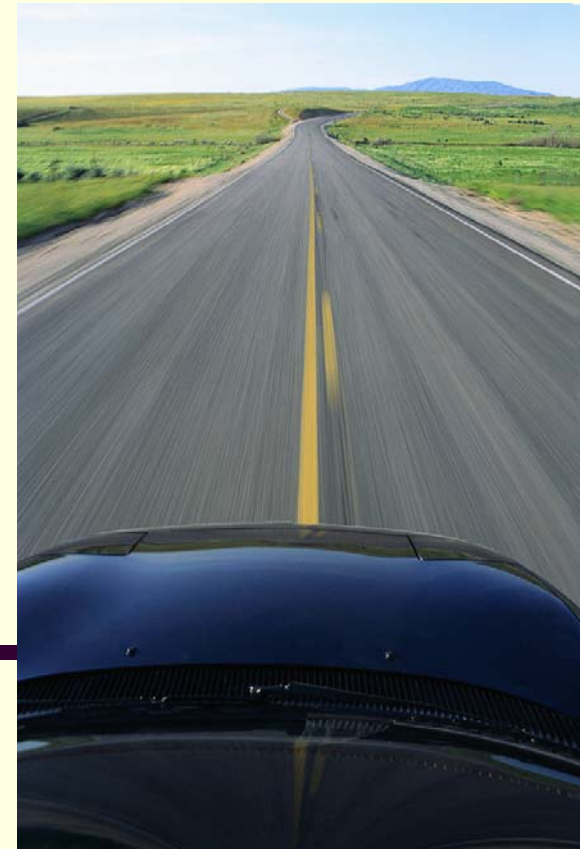


On The Road Again: Wyoming Commuting Patterns

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Research & Planning
Wyoming DOE

Research & Planning:

OUR ORGANIZATION:

R&P is a separate, exclusively statistical entity.

WHAT WE DO:

R&P collects, analyzes, and publishes timely and accurate labor market information (LMI) meeting established statistical standards.

OUR CUSTOMERS:

LMI makes the labor market more efficient by providing the public and the public's representatives with the basis for informed decision making.

Project History



- Commuting pattern research began as a feasibility study of a Park-n-Ride facility in Teton County (2001)
- Commuting Data for Campbell County--Susan Bigelow, Executive Director Campbell County Economic Development Corporation (CCEDC) 9/24/03
- Some prior research results located at <http://doe.state.wy.us/lmi/commute.htm>
- Latest revision of methodology applied to current study (2006)
 - Latitude and longitude assigned to residence location based on driver's license physical address
 - PO address lat./lon. used for PO boxes
 - Calculate distances where Lat./Lon. assigned



Commuting Pattern Development

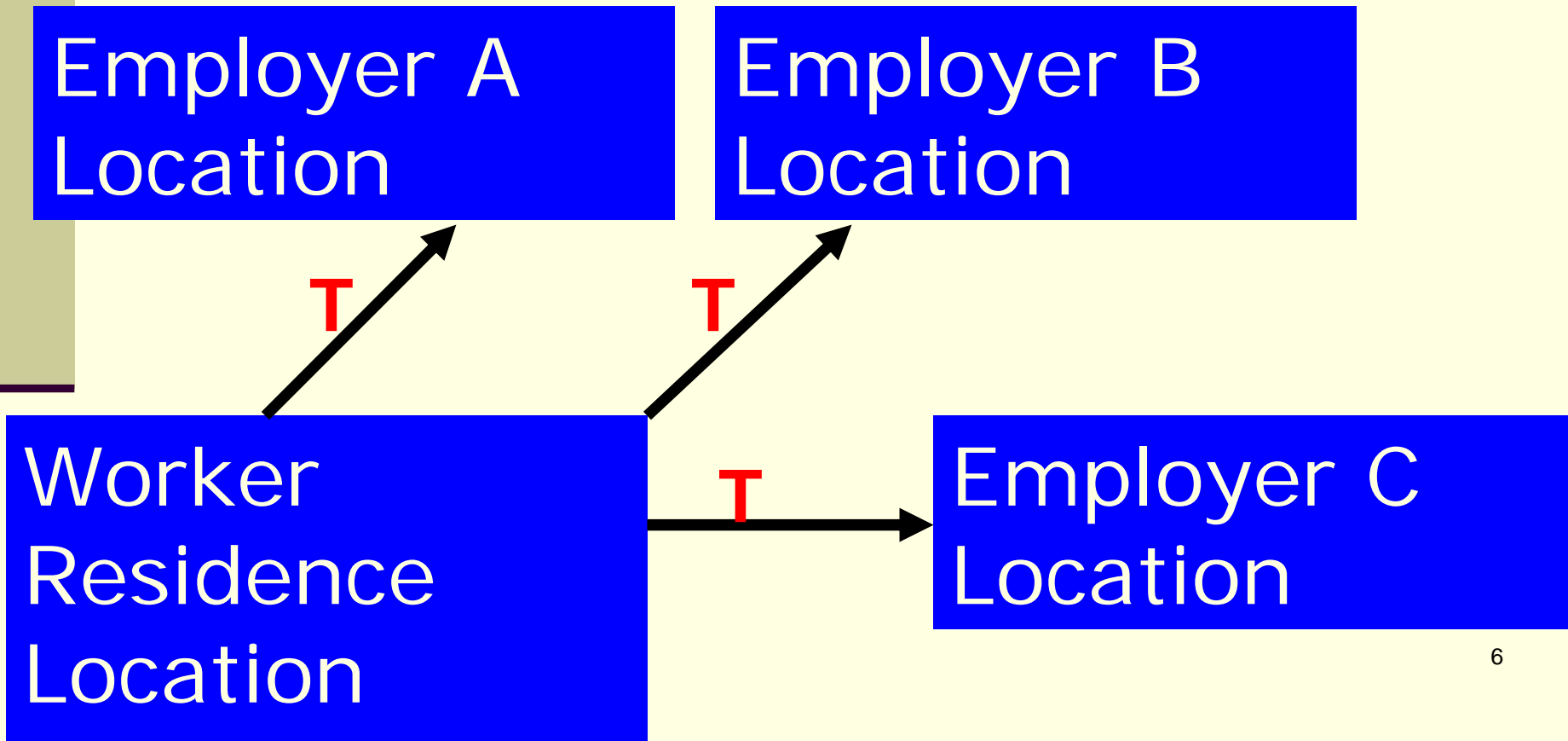
- Two items must be determined:
 - Residence Location
 - Work Location
- In some instances, work location is estimated
- Where possible out of state data are used to model interstate worker flows

Data Sources

- Unemployment Insurance Wage Records
 - Liable employers report all SSNs and wages each quarter
- Employer Master File
 - Contains aggregate information regarding UI liable businesses employment and wages
- WYDOT Driver's License File
 - Contains driver names, SSNs and physical addresses

Linking Residence to Work

- Link established each quarter for each job a worker holds = **1 Transaction**



Commuting Terms



- Intercounty Commuting
 - Reside in one county, work in another county (e.g., commute from Douglas to Casper)
- Intracounty Commuting
 - Reside and work in the same county (e.g., commute from Glenrock to Douglas)
- Base County
 - The county being studied (e.g., Campbell)
- Outflow
 - Workers who leave the base county for work in another county (e.g., people residing in Campbell and commuting to Johnson)
- Inflow
 - Workers who arrive in the base county from another county for work (e.g., people residing in Crook who commute to Campbell for work)

Why Study Worker Commuting Patterns?

Despite prevention efforts, police see more crashes

Suspect flees WHP at 130 mph

By JOSHUA WOLFSON
Star-Tribune staff writer Wednesday, August 08, 2007

Tuesday, July 24, 2007

ONLINE AUG

Star-Tribune staff reports

I-80 poses big burden

By JARED MILLER
Star-Tribune capital bureau

On the precipice: Wyo risks economy, way of life without highway funding fix, WYDOT says

West Belt Loop could divert traffic

By JOHN MORGAN
Star-Tribune staff writer Sunday, March 25, 2007

By JARED MILLER
Star-Tribune capital bureau Monday, December 11, 2006

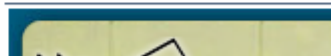


Gas activity kicks up dirt throughout the West

Tickets result from traffic days

By JOSHUA WOLFSON
Star-Tribune staff writer Sunday, June 24, 2007

By BOB MOEN
Associated Press writer Sunday, December 11, 2005



Motorcycle crashes rise in Wyo

By JARED MILLER
Star-Tribune capital bureau Wednesday, August 08, 2007

Highway funding fix requires huge investment, officials say

Patrol adds Pinedale division

By the Star-Tribune staff Monday, July 02, 2007

By JARED MILLER
Star-Tribune capital bureau

Lawmaker: Make I-80 a toll road

Officials plan mass flu response

By ALLISON RUPP
Star-Tribune staff writer Wednesday, June 20, 2007

By JARED MILLER
Star-Tribune capital bureau Tuesday, December 12, 2006

L

Mumps spreads across Midwest

By MIKE WILSON and MIKE STOBBE
Associated Press writers Thursday, April 20, 2006

Latest traffic operation leads to 59 tickets

By JOSHUA WOLFSON
Star-Tribune staff writer Saturday, July 14, 2007



Commuting Study and Context Analysis



- Focus on one net outflow county (Converse) and two net inflow counties (Campbell & Natrona)
 - Historical Trends
 - Gross and net flow rates
 - Rates by sex
 - Rates by age group
 - Implications
- The “Demographic Sledgehammer”
 - Rapidly aging population
 - Effects on consumer spending and commuting⁹



Commuting Study Results¹



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- Gross and net flows by county
- Flows by age group
- Flows by sex
- Wage differentials
- Imported labor

¹Results available in tabular form on the web; shown here in graphical form for illustrative purposes.

Figure: Campbell County Commuting Flows, 2000Q4-2005Q4

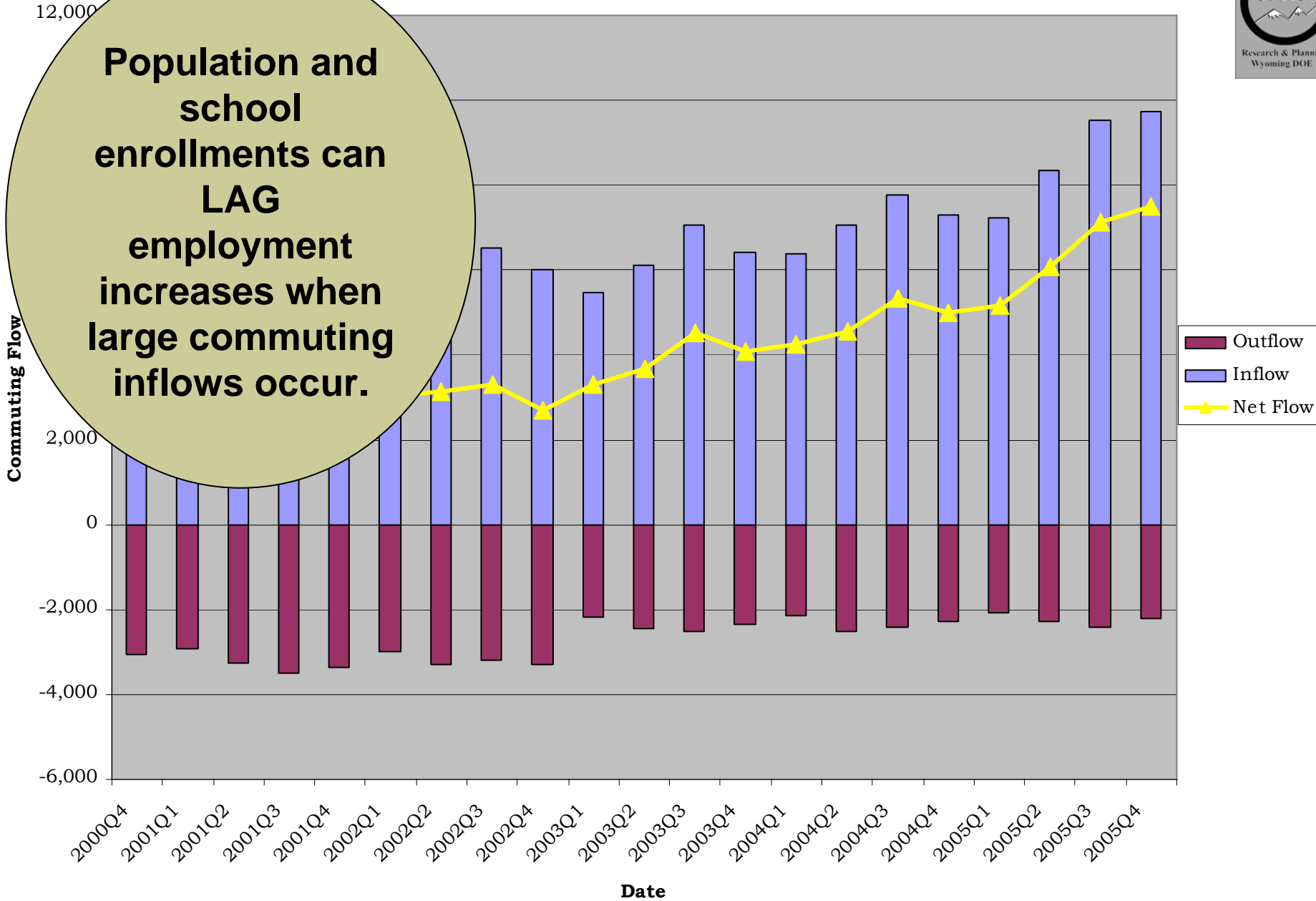


Figure: Natrona County Commuting Flows, 2000Q4-2005Q4

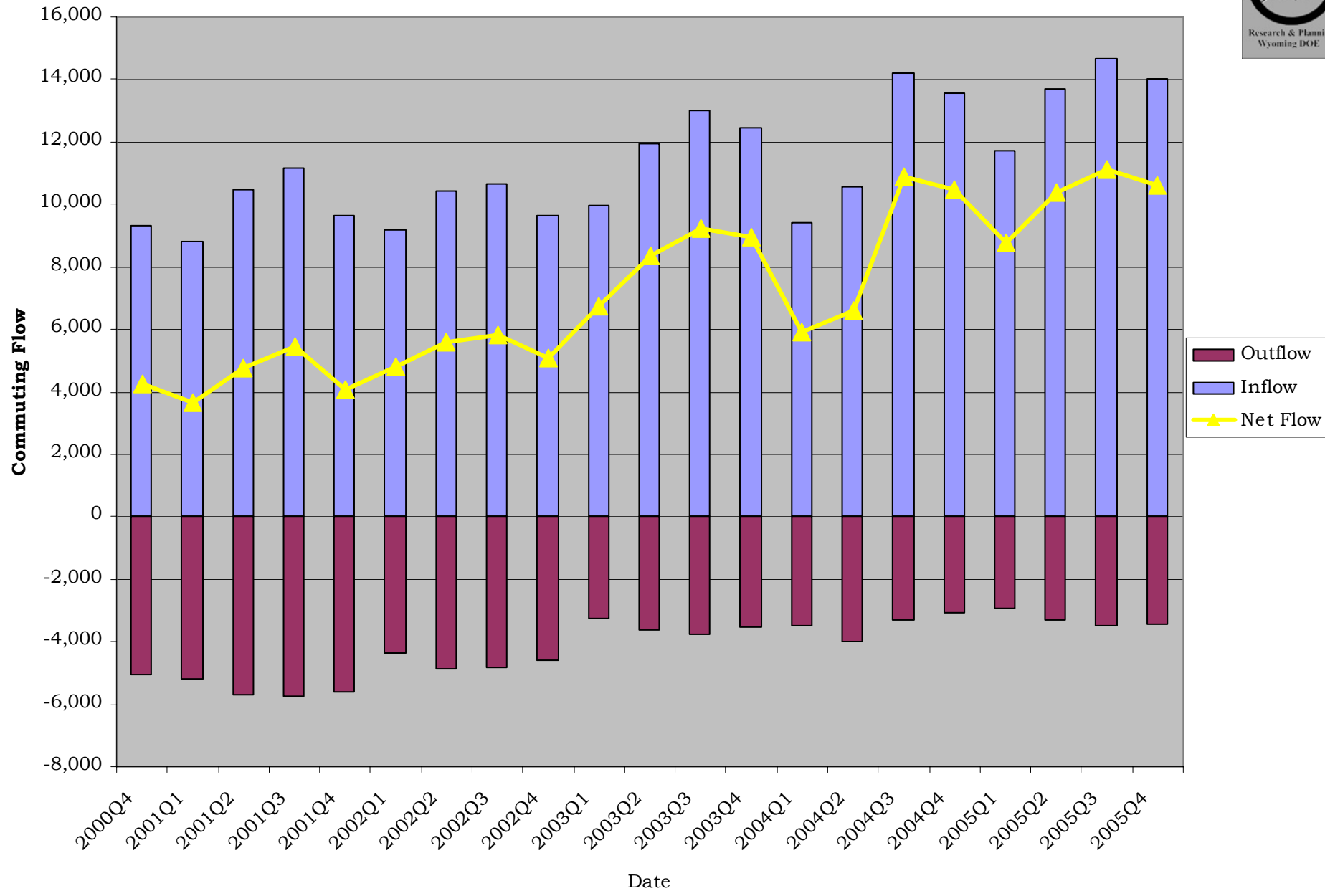
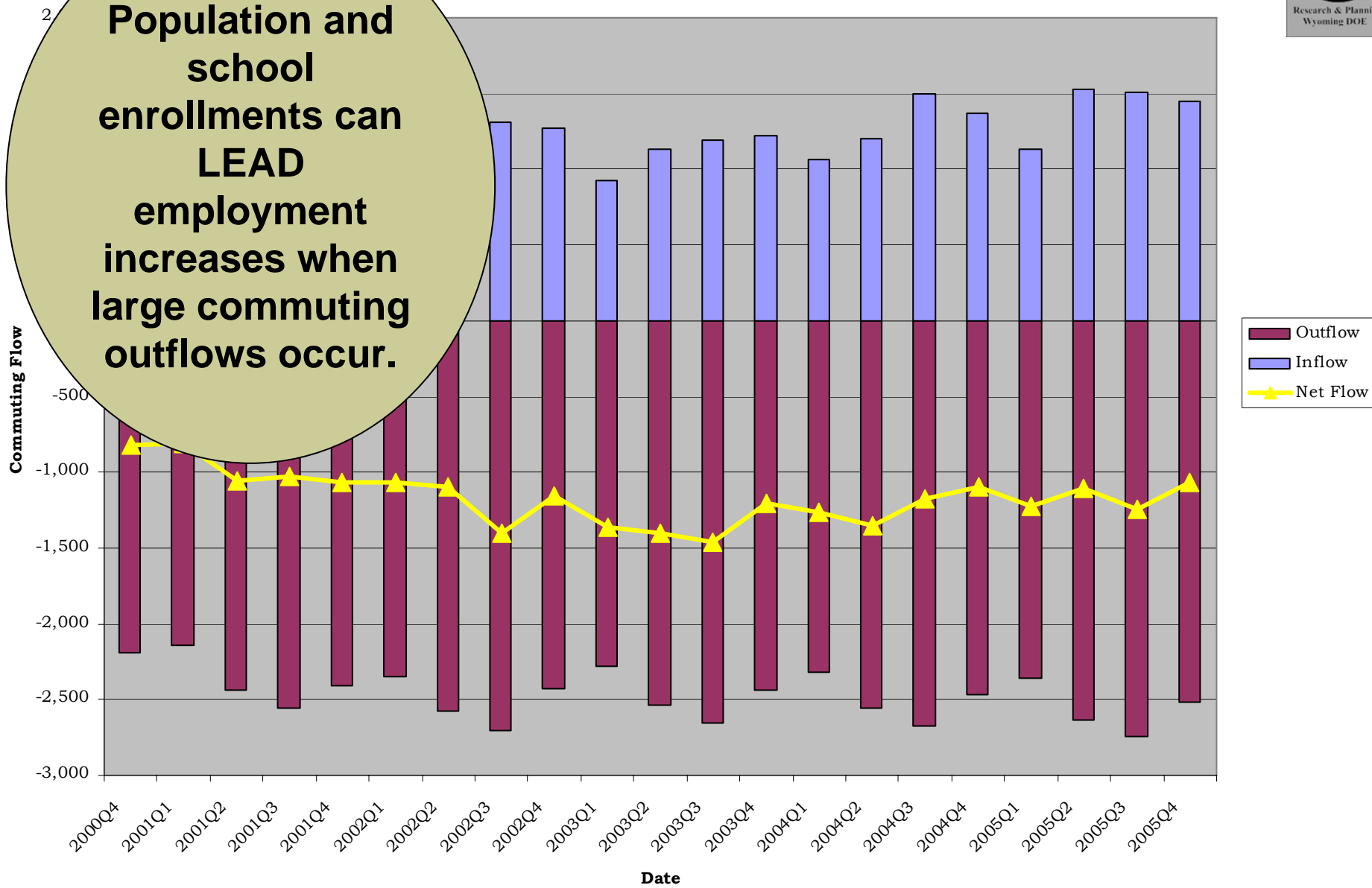


Figure: Converse County Commuting Flows, 2000Q4-2005Q4



Commuting Study Results



- Gross and net flows by county
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- Flows by sex
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Figure: Converse County Commuting Outflows by Age Group

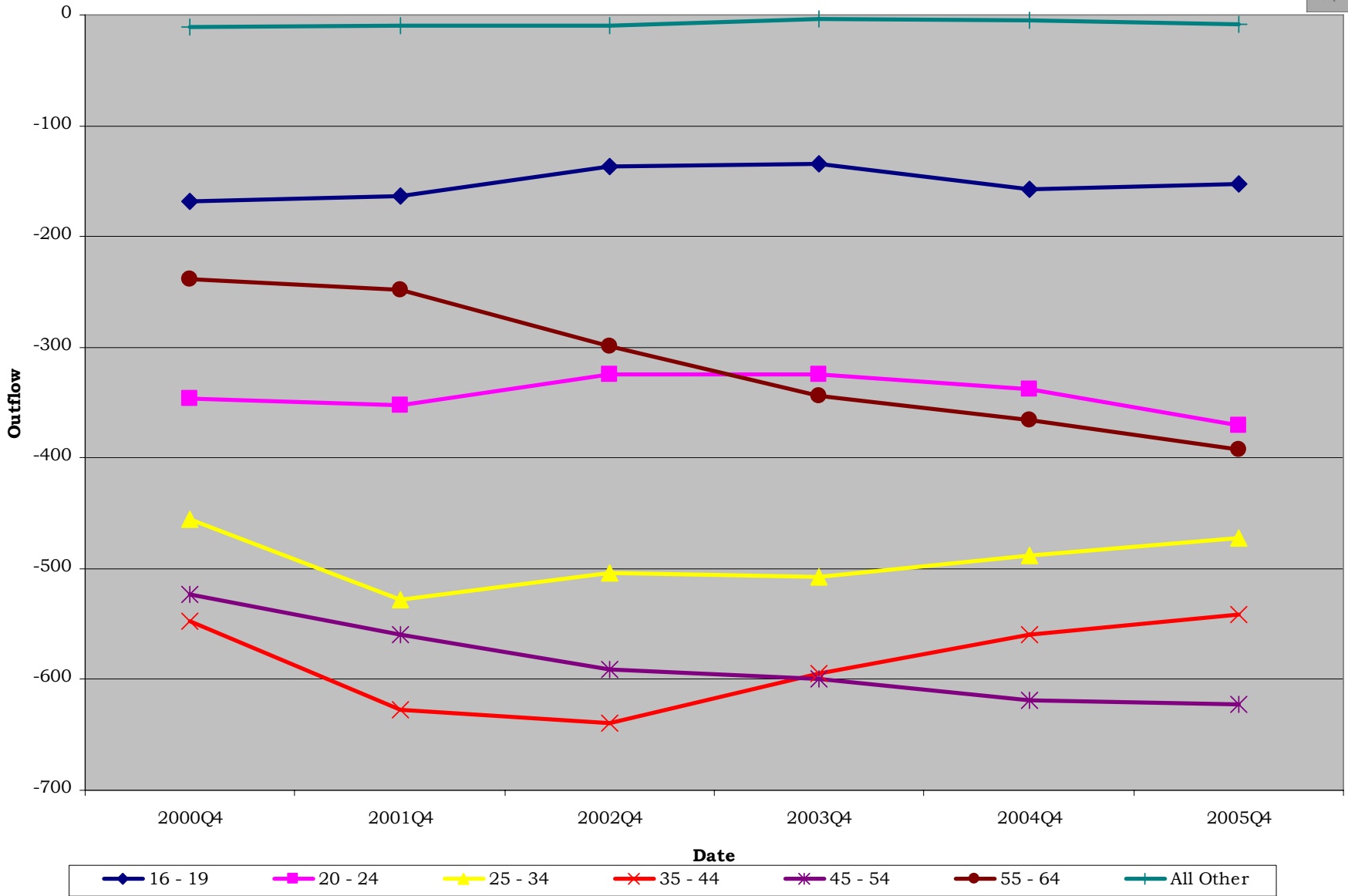


Figure: Natrona County Commuting Inflows by Age Group

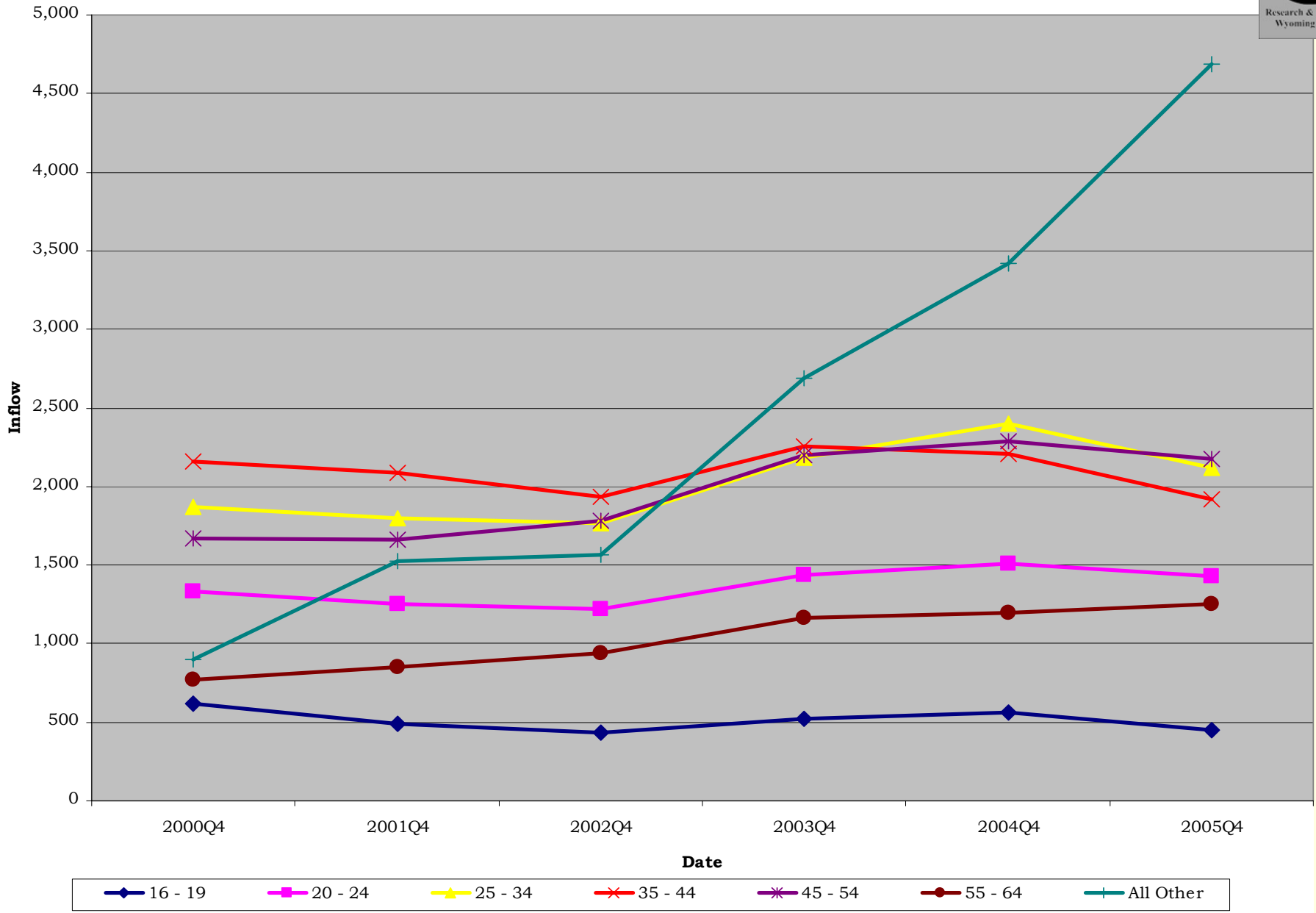
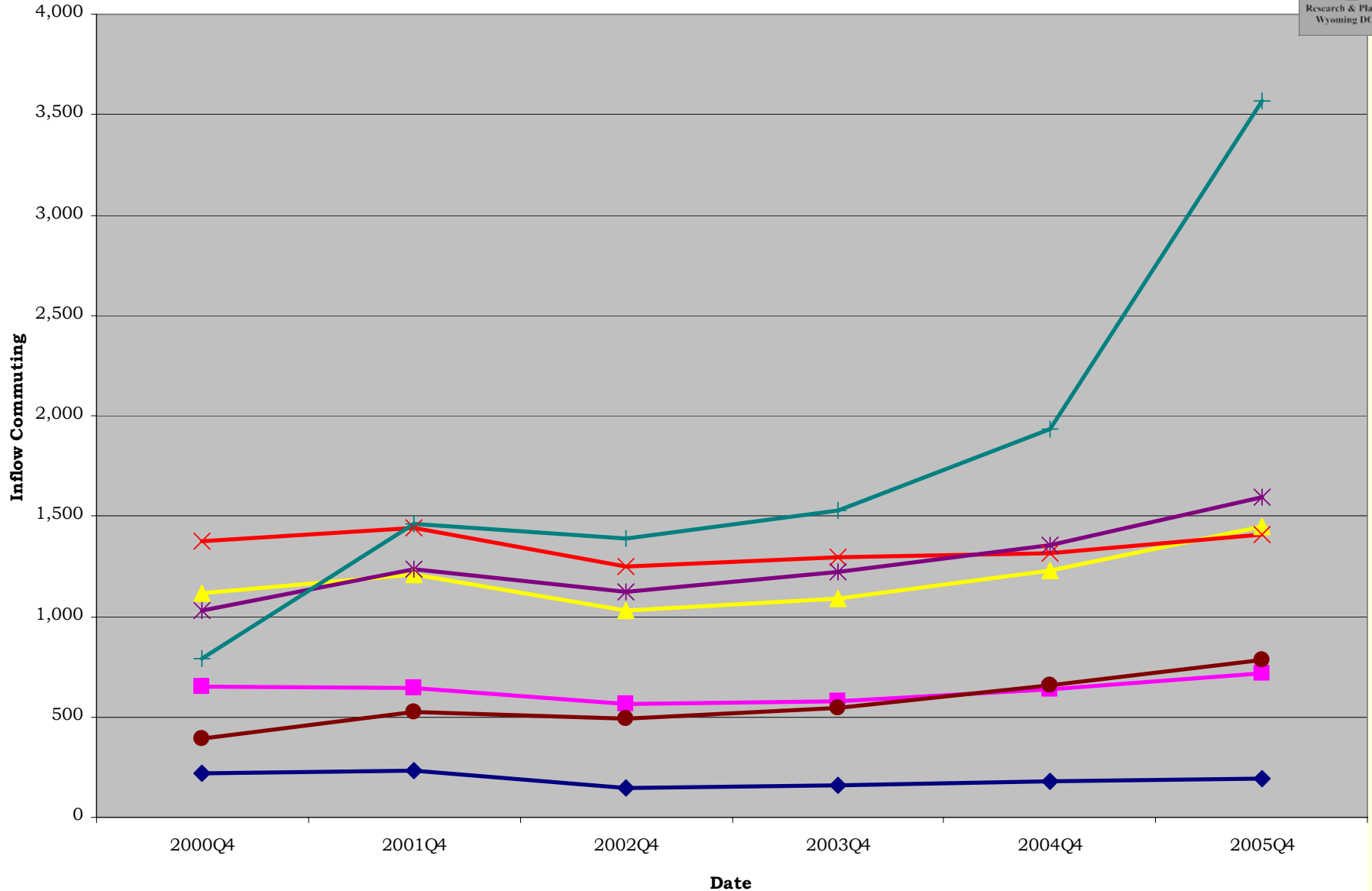


Figure: Campbell County Commuting Inflows by Age Group



Commuting Study Results



- Gross and net flows by county
- Flows by age group
- Flows by sex
- Wage differentials
- Imported labor

Figure: Natrona County Commuting Inflows by Sex

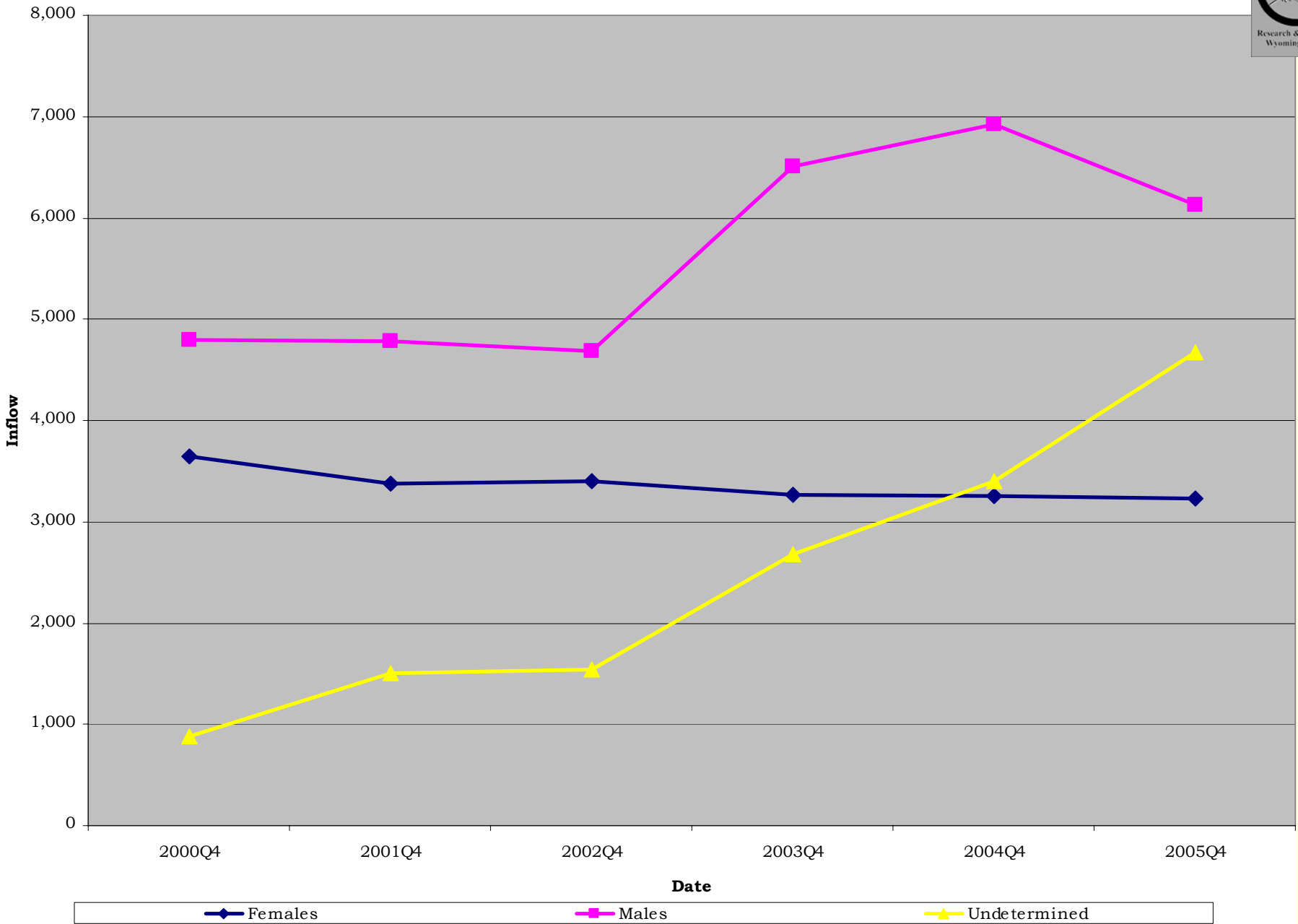


Figure: Campbell County Inflow Commuting by Sex

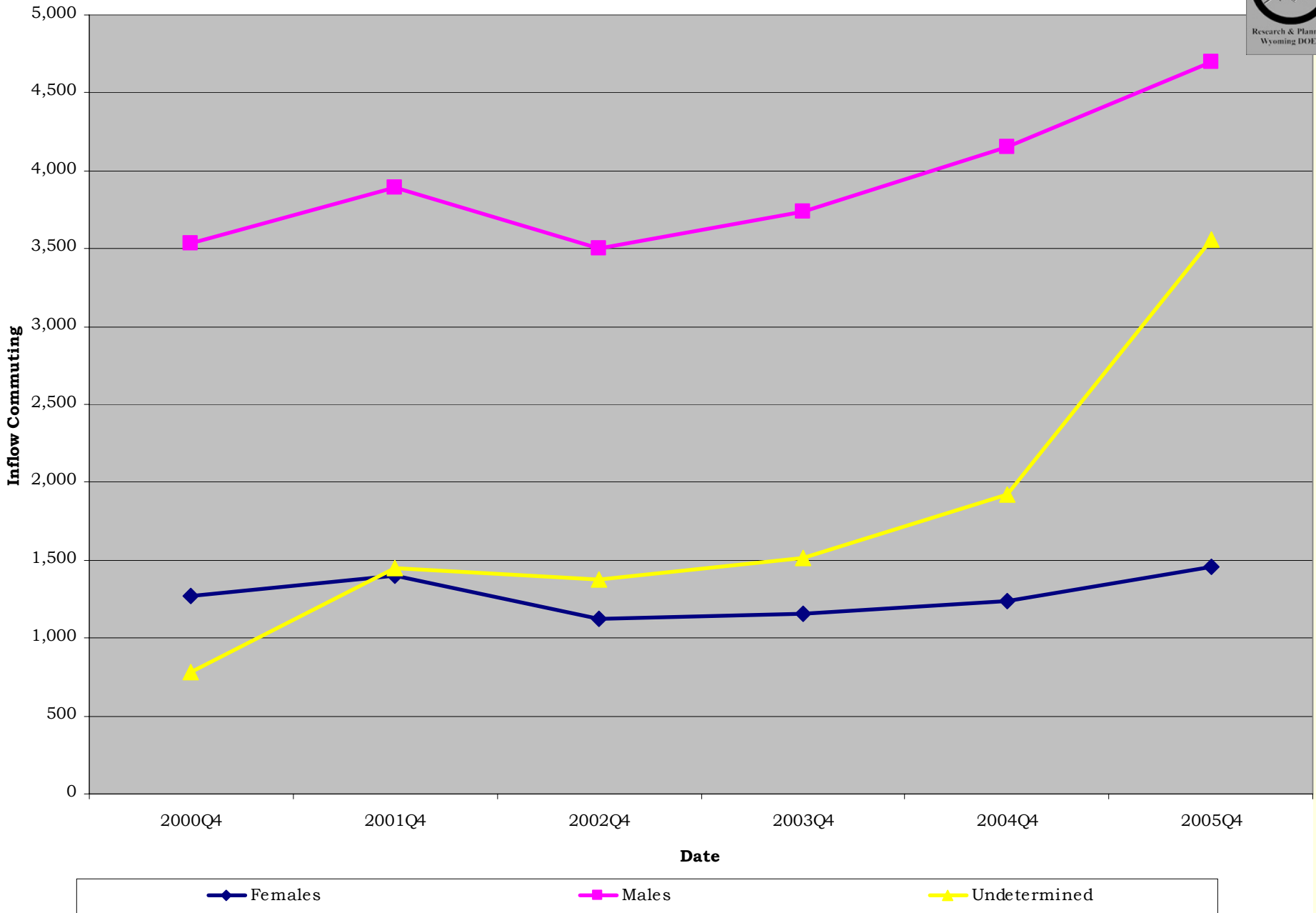
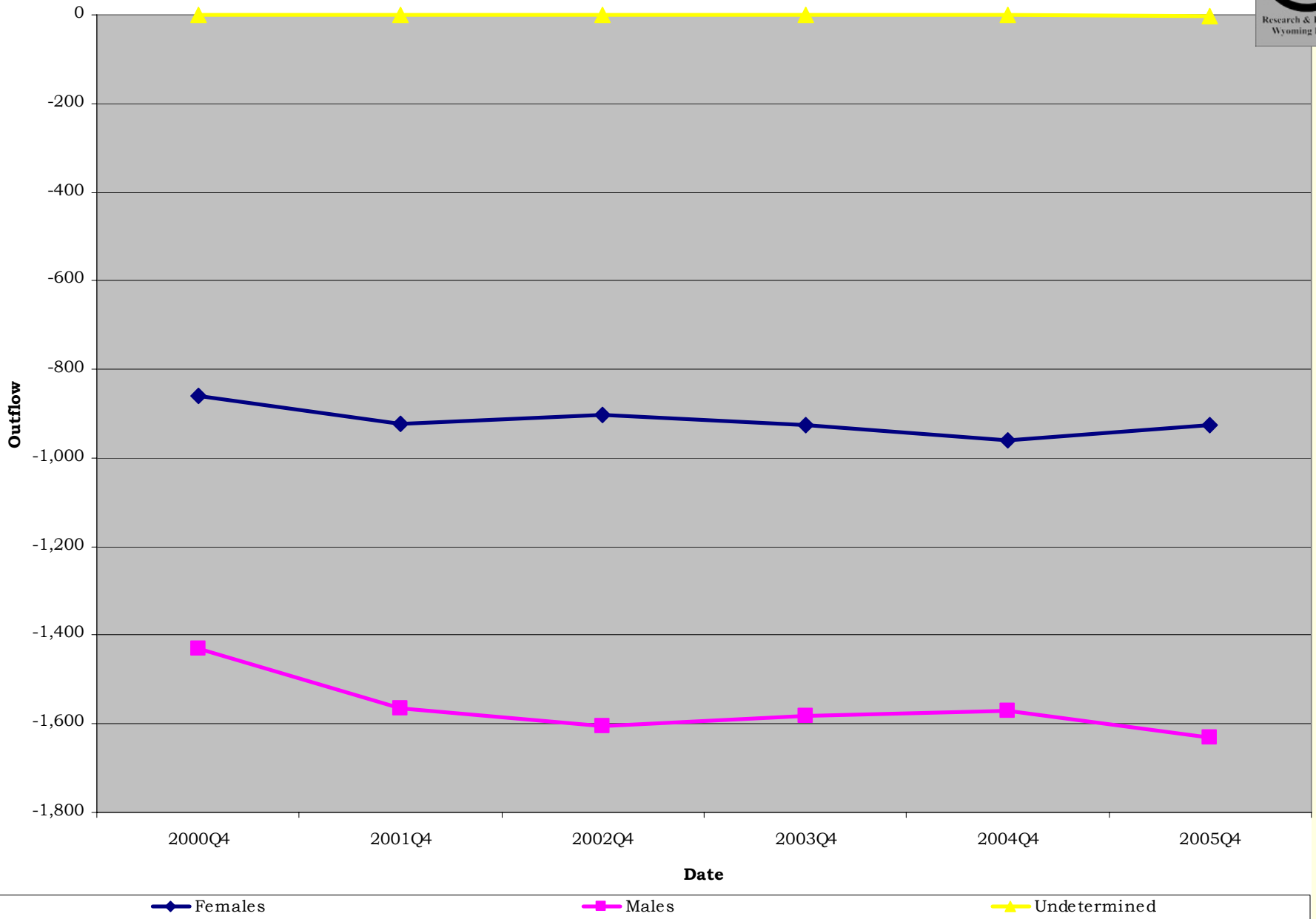


Figure: Converse County Commuting Outflows by Sex



Commuting Study Results



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- Gross and net flows by county
- Flows by age group
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- Imported labor

Figure: Average Wages for Campbell County Commuters, 2000Q1-2005Q4

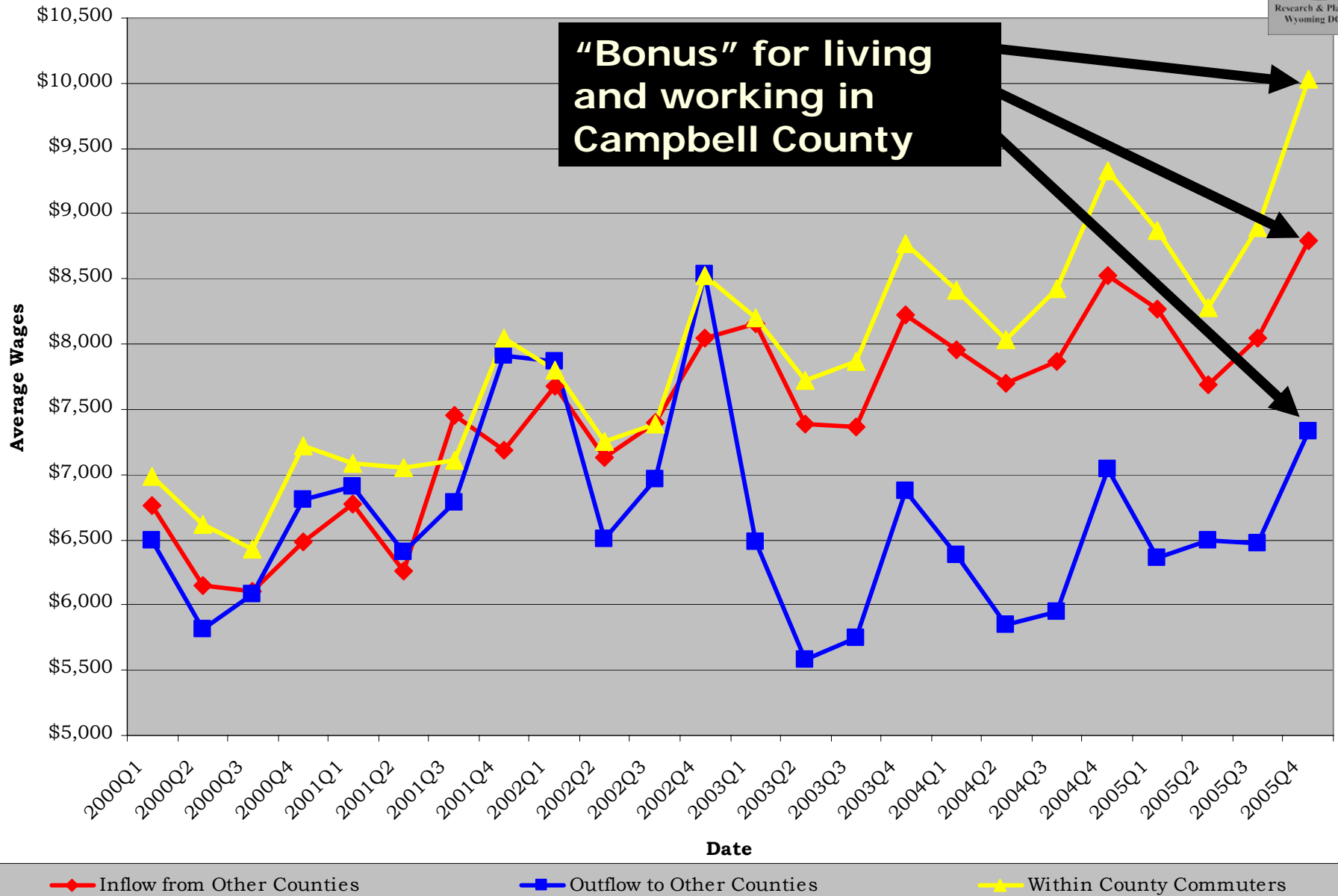
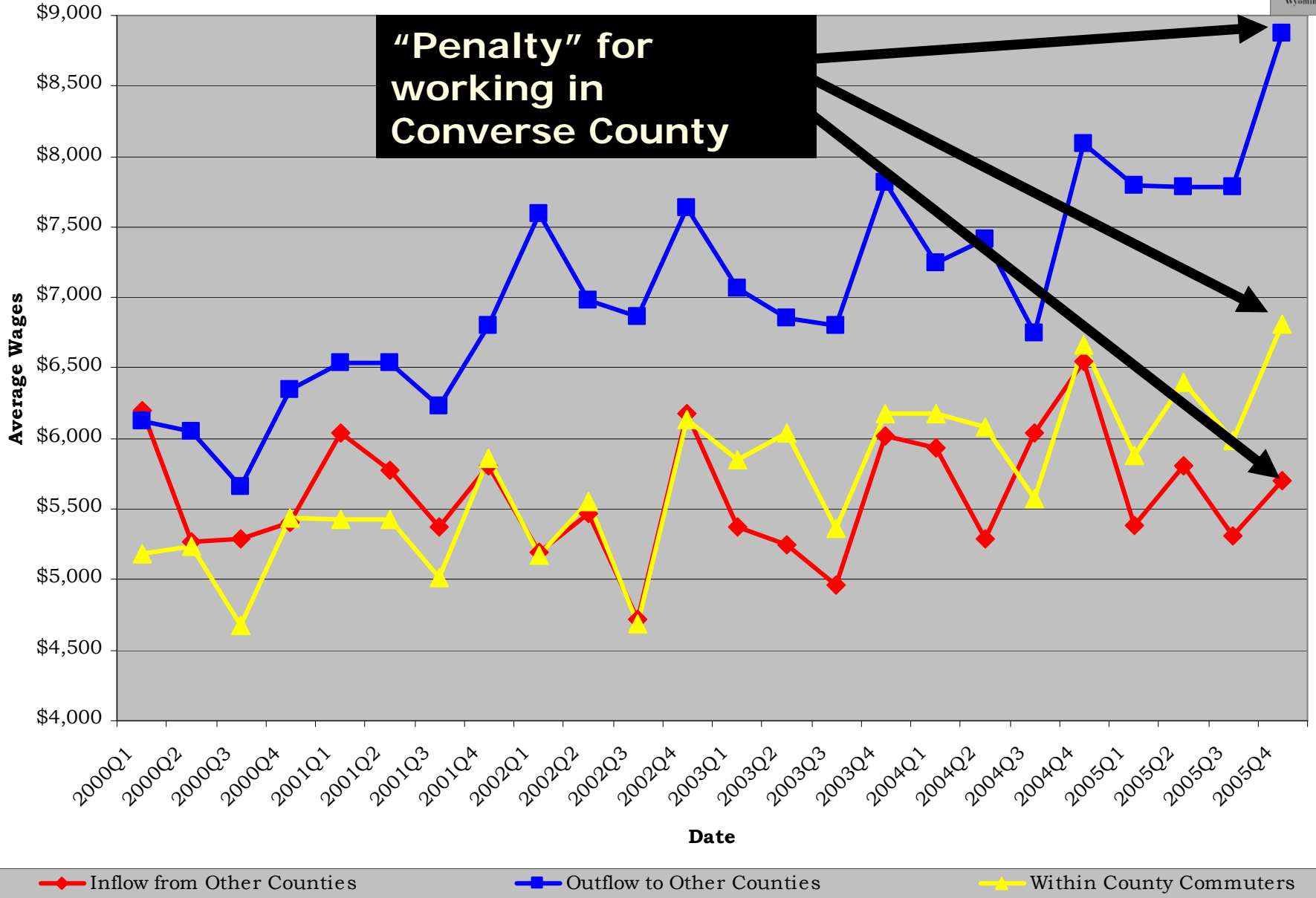


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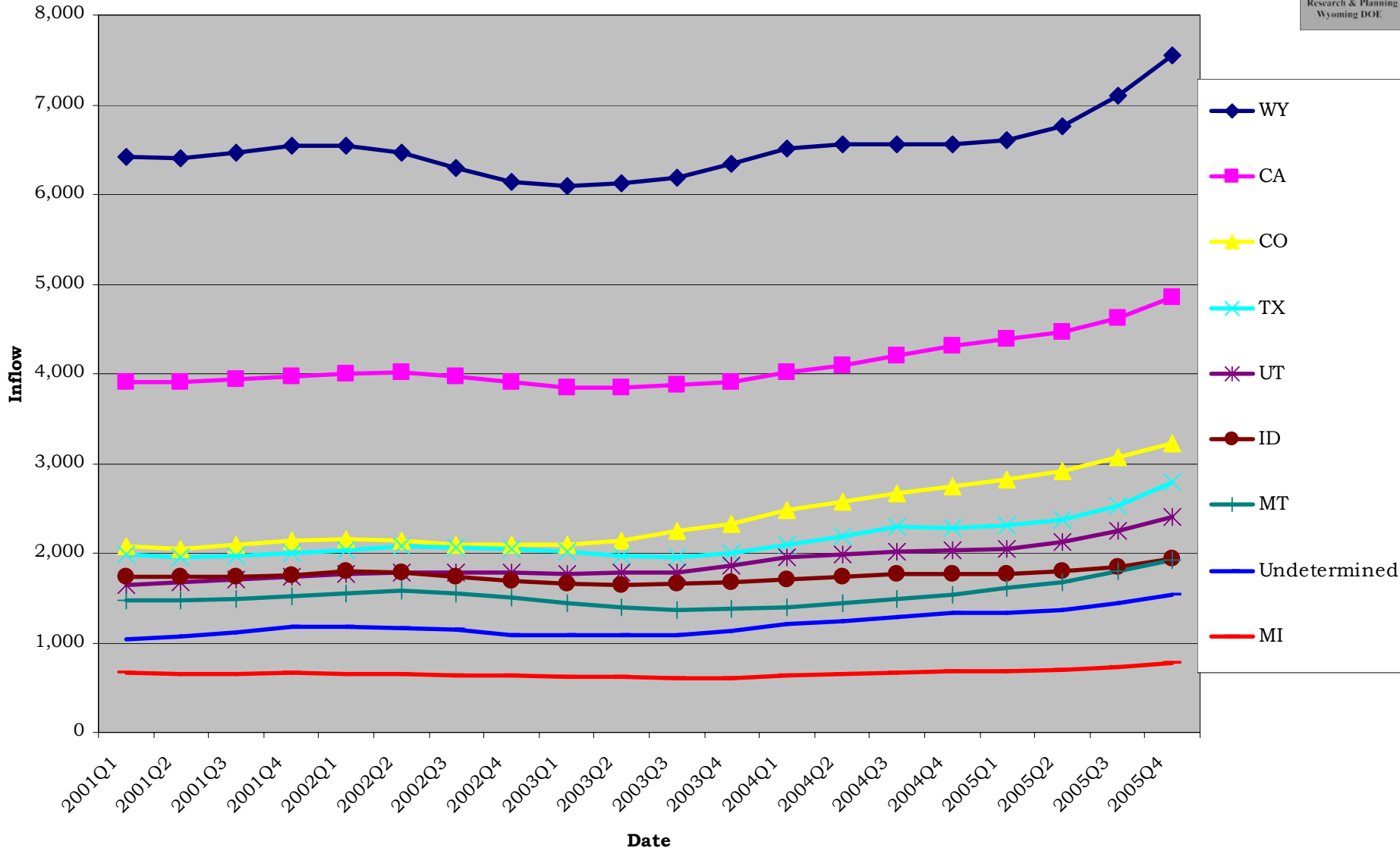
Commuting Study Results



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- Gross and net flows by county
- Flows by age group
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Figure: Top State of Origin Inflows to Wyoming for Workers without Wyoming Driver Licenses

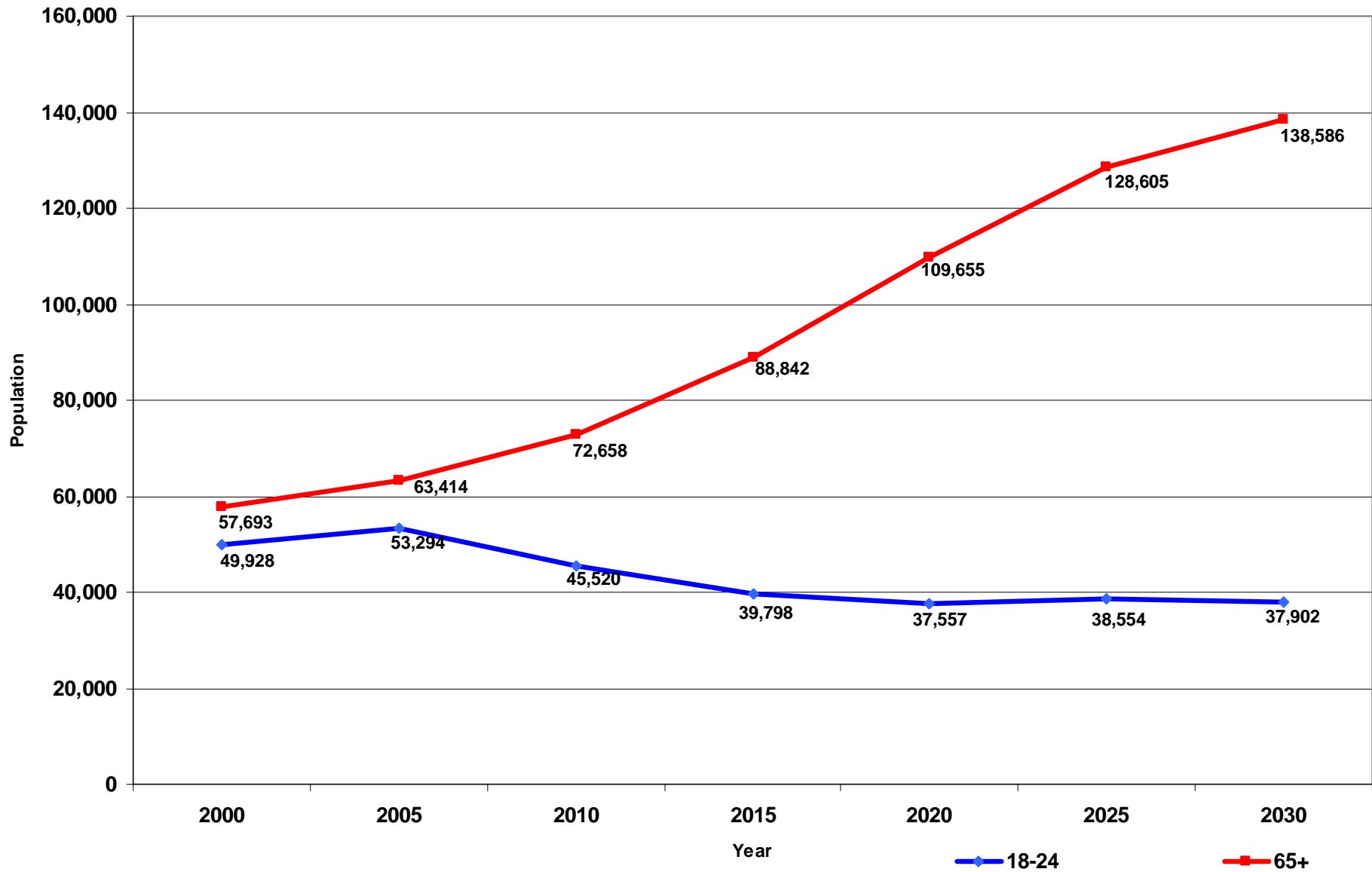


Other Factors: The “Demographic Sledgehammer”

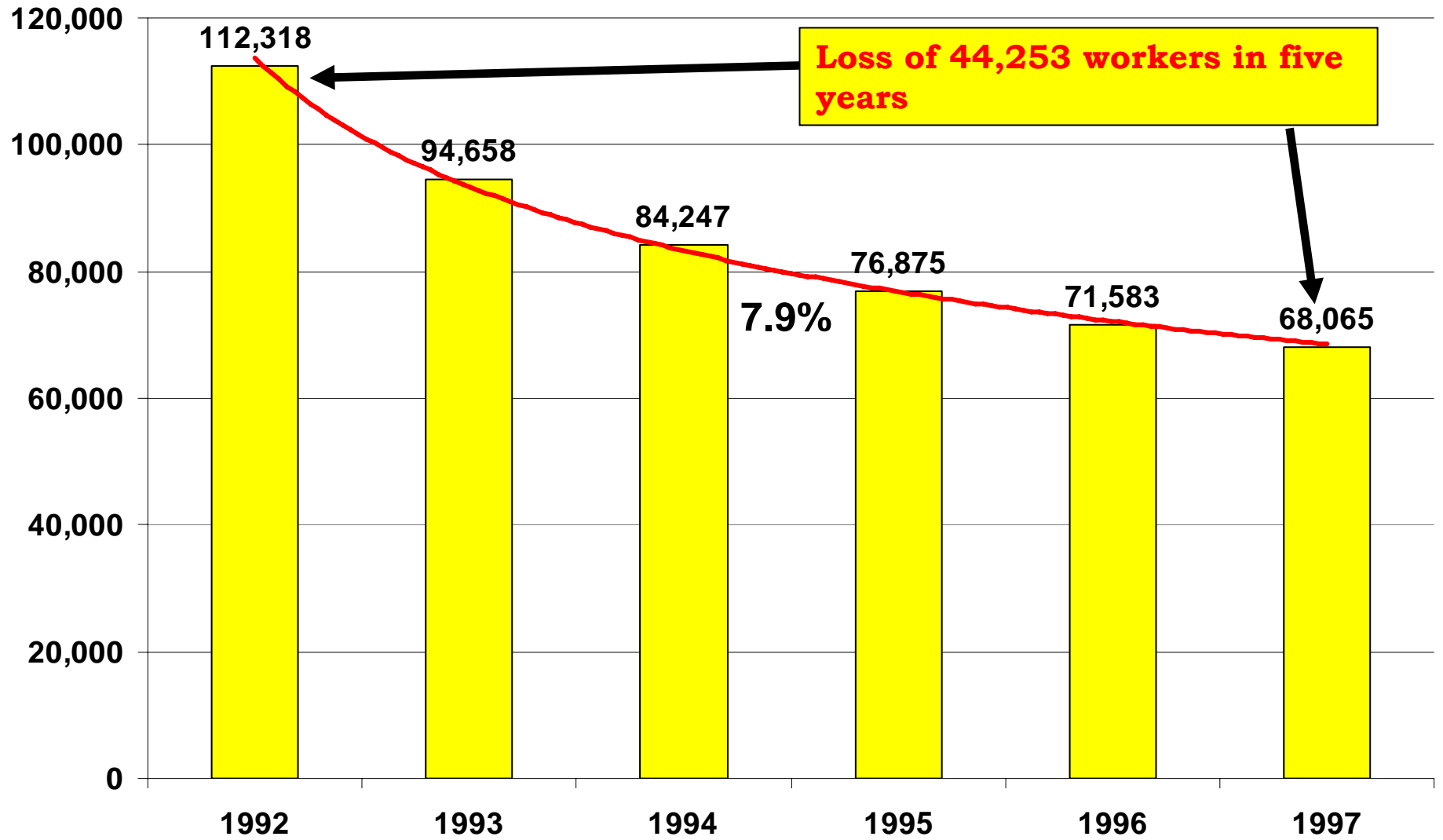
- Aging population
- Consumption patterns



Figure: Projected Population Growth for Wyoming, 2000-2030



Number of 1992 Worker Cohort Age 16-34 Still Working in Wyoming



Number of 2000 Worker Cohort Age 16-34 Still Working in Wyoming

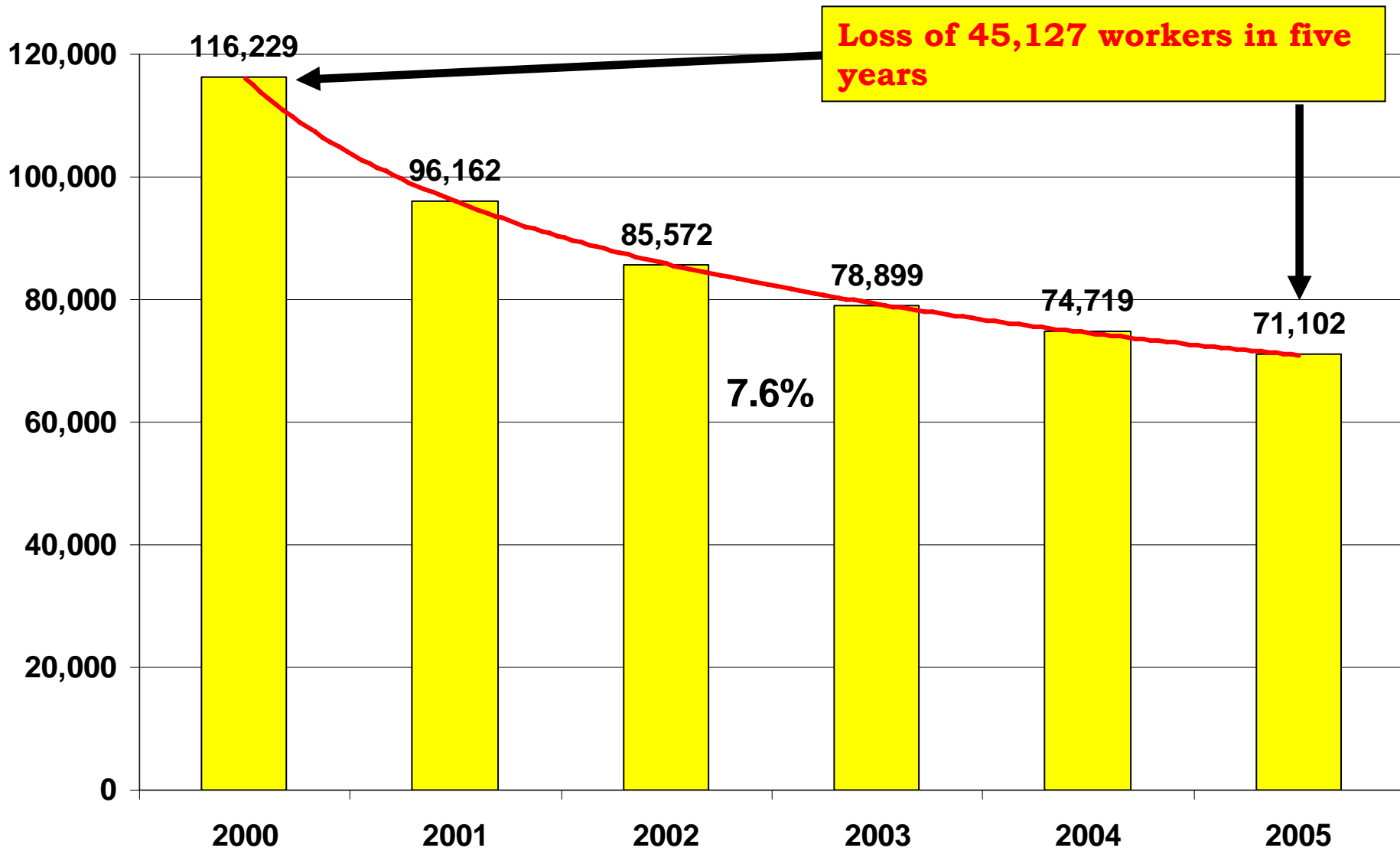
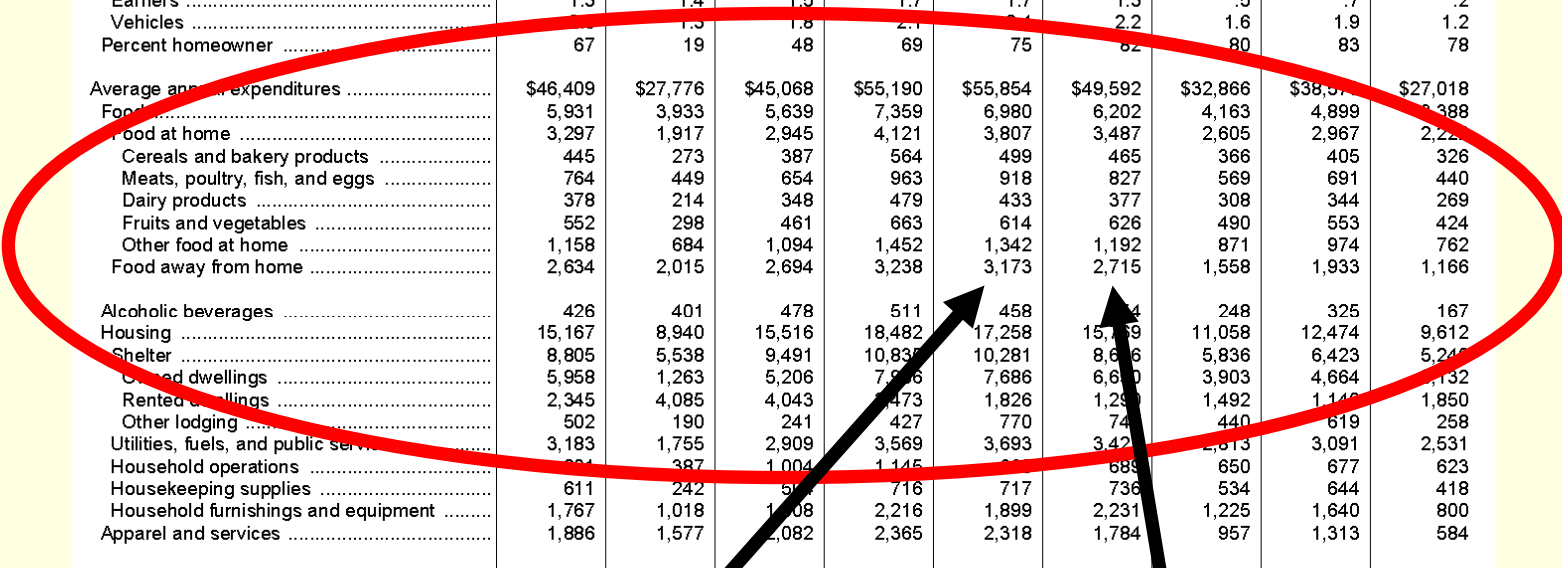


Table 4. Age of reference person: Average annual expenditures and characteristics, Consumer Expenditure Survey, 2005



Item	All consumer units	Under 25 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years and older	65-74 years	75 years and older
Number of consumer units (in thousands)	117,356	8,543	19,635	23,835	24,393	18,104	22,847	11,505	11,342
Consumer unit characteristics:									
Income before taxes	\$58,712	\$27,494	\$55,066	\$72,699	\$75,266	\$64,156	\$36,936	\$45,202	\$28,552
Age of reference person	48.6	21.5	29.5	39.7	49.3	59.3	75.2	69.1	81.4
Average number in consumer unit:									
Persons	2.5	2.1	2.8	3.2	2.7	2.1	1.7	1.9	1.5
Children under 186	.5	1.1	1.3	.6	.2	.1	.1	(¹)
Persons 65 and over3	(¹)	(¹)	(¹)	(¹)	(¹)	1.4	1.4	1.3
Earners	1.3	1.4	1.5	1.7	1.7	1.3	.5	.7	.2
Vehicles	1.7	1.3	1.8	2.1	2.1	2.2	1.6	1.9	1.2
Percent homeowner	67	19	48	69	75	82	80	83	78
Average annual expenditures	\$46,409	\$27,776	\$45,068	\$55,190	\$55,854	\$49,592	\$32,866	\$38,577	\$27,018
Food									
Food at home	5,931	3,933	5,639	7,359	6,980	6,202	4,163	4,899	3,988
Cereals and bakery products	3,297	1,917	2,945	4,121	3,807	3,487	2,605	2,967	2,227
Meats, poultry, fish, and eggs	445	273	387	564	499	465	366	405	326
Dairy products	764	449	654	963	918	827	569	691	440
Fruits and vegetables	378	214	348	479	433	377	308	344	269
Other food at home	552	298	461	663	614	626	490	553	424
Food away from home	1,158	684	1,094	1,452	1,342	1,192	871	974	762
Alcoholic beverages	2,634	2,015	2,694	3,238	3,173	2,715	1,558	1,933	1,166
Housing	426	401	478	511	458	444	248	325	167
Shelter	15,167	8,940	15,516	18,482	17,258	15,759	11,058	12,474	9,612
Owned dwellings	8,805	5,538	9,491	10,837	10,281	8,636	5,836	6,423	5,245
Rented dwellings	5,958	1,263	5,206	7,645	7,686	6,600	3,903	4,664	4,132
Other lodging	2,345	4,085	4,043	4,473	1,826	1,291	1,492	1,146	1,850
Utilities, fuels, and public services	502	190	241	427	770	744	440	619	258
Household operations	3,183	1,755	2,909	3,569	3,693	3,427	2,013	3,091	2,531
Housekeeping supplies	611	242	515	716	717	689	650	677	623
Household furnishings and equipment	1,767	1,018	1,508	2,216	1,899	2,231	1,225	1,640	800
Apparel and services	1,886	1,577	2,082	2,365	2,318	1,784	957	1,313	584
Transportation									
Vehicle purchases (net outlay)									
Gasoline and motor oil									
Other vehicle expenses									
Public transportation									
Healthcare									
Entertainment									
Personal care products and services									
Reading									
Education									
Tobacco products and smoking supplies									
Miscellaneous									
Cash contributions	1,663	393	1,080	1,735	2,076	1,960	1,889	1,925	1,852
Personal insurance and pensions									
Life and other personal insurance	5,204	2,133	5,123	6,929	7,348	5,909	1,775	2,580	959
Pensions and Social Security	381	45	219	397	474	541	403	449	357
	4,823	2,088	4,903	6,532	6,874	5,368	1,372	2,132	601



Average annual away from home food consumption is 23.8% less for 55 - 64 year olds than for those 45 - 54 years of age

¹ Value less than 0.05.

Research Extensions



- Model likelihood of relocation
 - Lag between commuting and changes in school enrollments
 - Lag between commuting and changes in population
- Assist law enforcement in officer placements
- Connect commuting data to highway accident and Worker's Compensation data

Conclusion



- Inadequate Monitoring
 - Leads to misdiagnosis of issues
 - Move beyond headlines to quantitative understanding
- Rapidly increasing commuting flows
 - Increased road deterioration
 - Increased motor vehicle accidents
 - Increased demands for first responder services
- Aging population
 - Need to “convert” out of state commuters and temporary workers to residents to maintain tax base
 - If older workers are not replaced, aggregate consumption will decline
 - Social welfare programs strained