Opportunities and Challenges

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Ву

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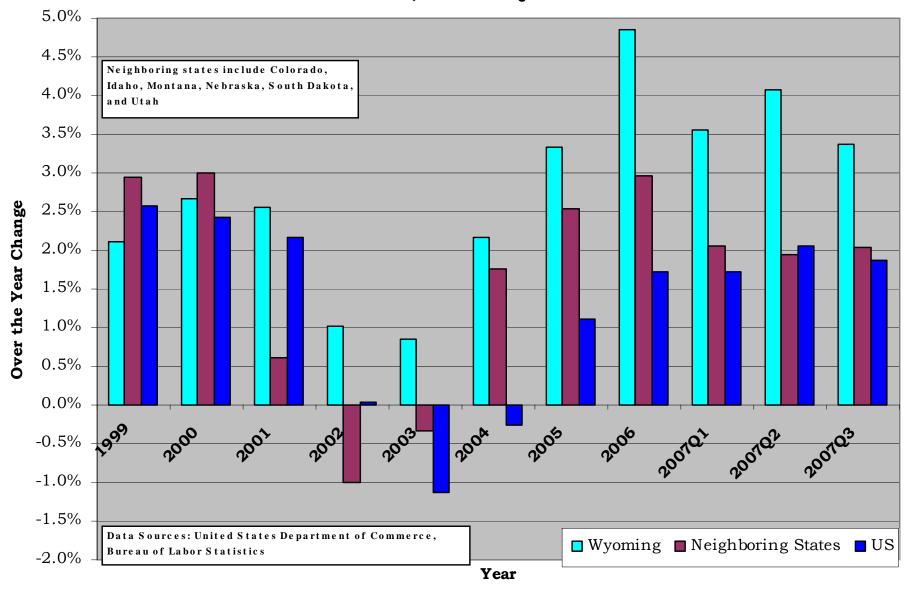
Today's Presentation

- Population and Workforce Trends
- National and Global Market Forces
- Housing Infrastructure
- Why discuss housing last?



Population and Workforce Trends

Figure: Over the Year Employment Change for Wyoming, Neighboring States, and the US, 1999-2007Q3



Wyoming Needs Nonresident Workers!

Table: Number of Persons Working at Any Time in Wyoming by Residency Status, 2004-2006

	2004	2006	2004-2006	
Residency Status	Number	Number	Numeric Change	Percent Change
Residents	275,740	275,015	-725	-0.3
Nonresidents	48,767	76,586	27,819	57.0
Total	324,507	351,601	27,094	8.3

Excerpt from Jones, S.D. (2007). Demographic Effects of Wyoming's Energy-Related Expansion. Wyoming Labor Force Trends 44(4). http://doe.state.wy.us/lmi/0407/a1.htm

Note: Nonresidents represent segment of the population without known demographics.

Resident Labor Supply Exhausted!

Sources of Labor Supply for Wyoming

	New Labor – Fi Wyoming Domestic	rst-Time Employees	Employed Workers Existing Resident		
	Supply	Non-Domestic Supply	Employees	Total	
1995	12,480	37,979	231,032	281,491	
	4.4%	13.5%	82.1%	100.0%	
2000	11,798	42,245	254,254	308,297	
	3.8%	13.7%	82.5%	100.0%	
2006 ^(p)	8,913	51,515	291,173	351,601	
	2.5%	14.7%	82.8%	100.0%	

Domestic = Resident

(p) Preliminary.

Source: S. Jones. 4/9/2007. R&P, Department of Employment

On the Road in Wyoming

Despite prevention efforts, police see more crashes

Suspect flees WHP at 130 mph

I-80 poses big burden

West Belt Loop could divert traffic

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

Tickets result from traffic days

Gas activity kicks up dirt throughout the West

Motorcycle crashes rise in Wyo

Highway funding fix requires huge investment, officials say

Patrol adds Pinedale division

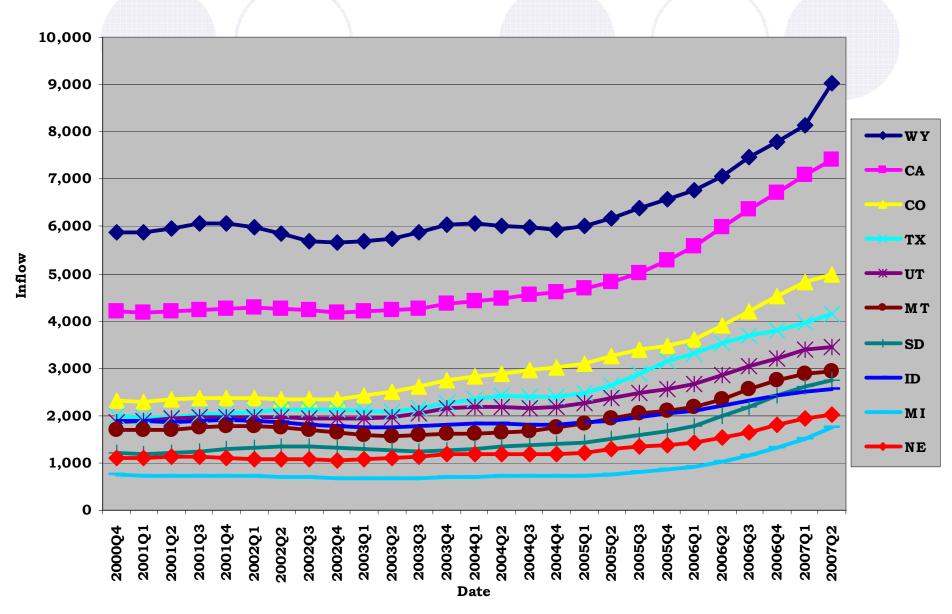
Lawmaker: Make I-80 a toll road

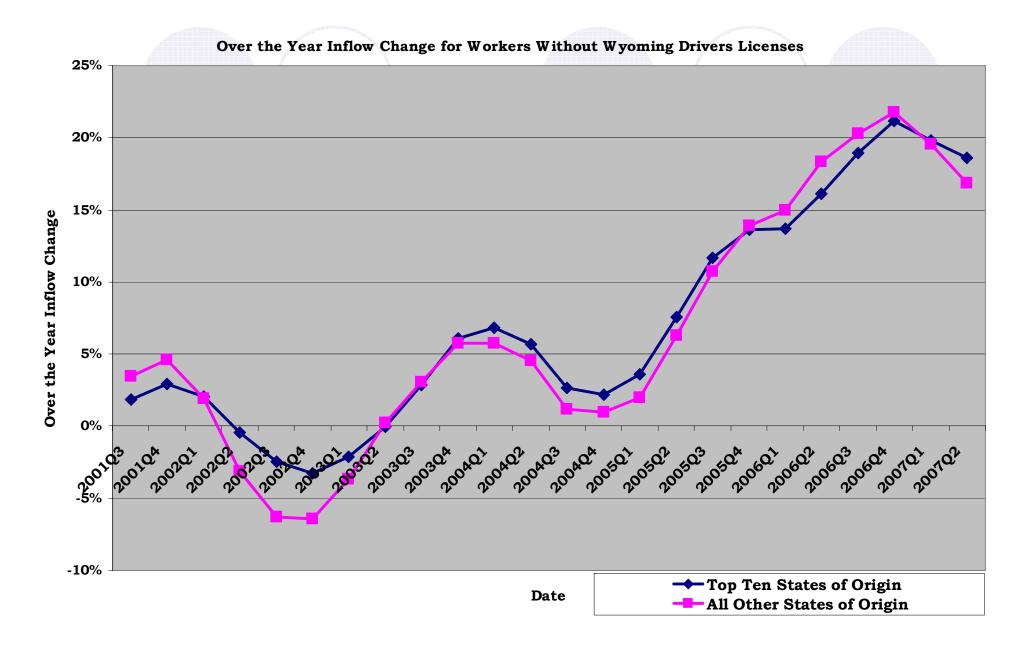
Officials plan mass flu response

Latest traffic operation leads to 59 tickets

Mumps spreads across Midwest

Figure: Top State of Origin Inflows to Wyoming for Workers without Wyoming Driver Licenses





Source: D. Leonard, Wyoming Commuting Pattern Data Model, Unpublished Run, February 21, 2008 Wyoming Department of Employment, Research & Planning

Nonresident Workers Come to Wyoming, But Don't Stay!

Table: Comparison of Average Number of Workers Starting Employment in Wyoming During a Quarter and Who Were Still Employed One Quarter and Four Quarters Later, by State of Origin (Selected States), 1994 to 2006

	Total n Started Work in Wyoming	Still in Wyoming 1 Quarter Later		Still in Wyoming 4 Quarters Later			
		n	%	n	%	p-value	
Wyoming	9,014	6,332	70.2%	3,959	43.9%	*0.000	
Nebraska	1,465	1,037	70.8%	498	34.0%	*0.000	
South Dakota	1,684	1,249	74.2%	680	40.4%	*0.000	
Montana	2,234	1,522	68.1%	734	32.9%	*0.009	
Iowa	750	531	70.8%	240	32.0%	0.167	
Total of All States	61,337	41,942	68.4%	18,953	30.9%		

^{*}Significant at the .01 level.

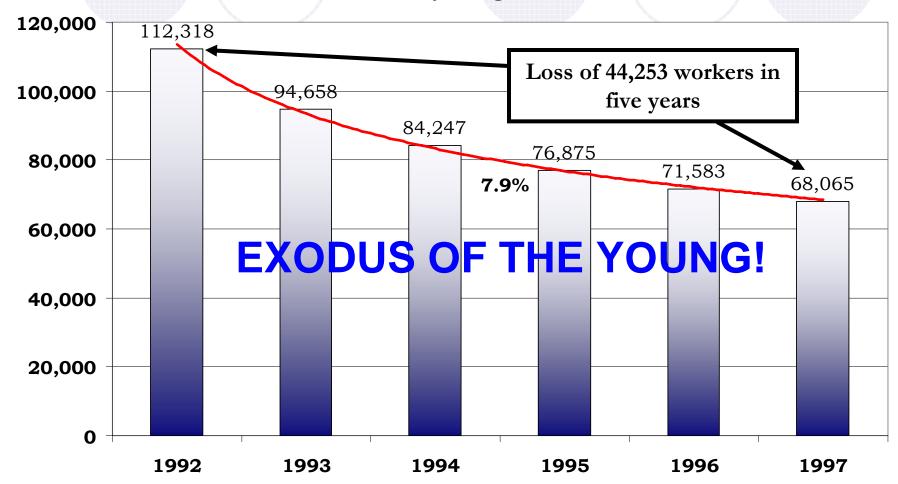
Source: Unpublished data. Run February 12, 2008, by S.D. Jones, Research & Planning.

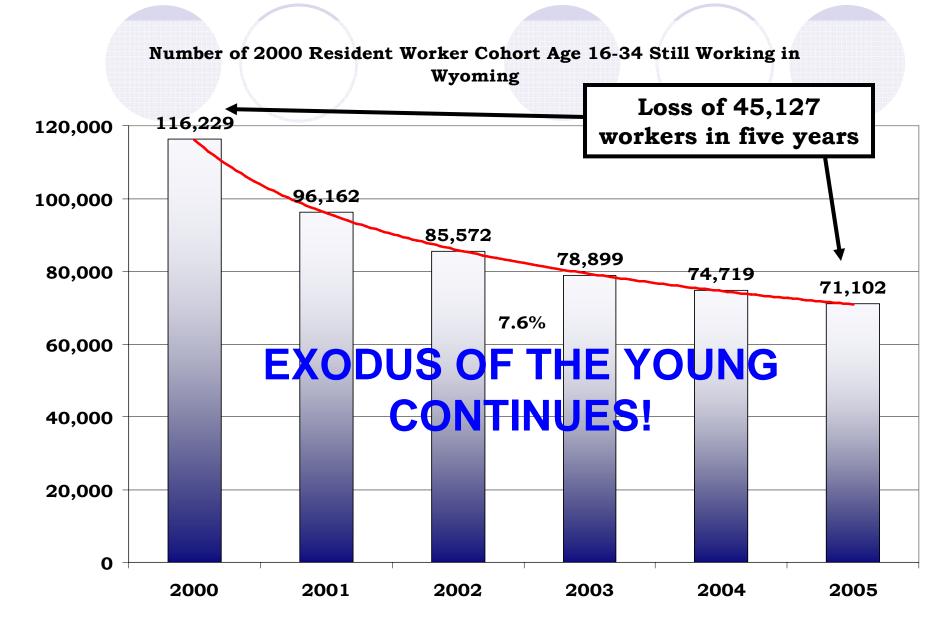
The \$64 Question:

Do we really want new workers to stay? Personal observations of the last "boom"

- Are nonresidents welcome in Wyoming?
- Does Wyoming appear to prefer "disposable workers"?
 - Come in during the boom
 - When it's over they leave
- Historically, Wyoming appears to only welcome certain types of workers which benefit existing industries
- We talk diversification, but do we really want it?
 - What is diversification (define) allows us to manage risk (property values)
 - Wyoming more vulnerable to ups/downs of energy markets
 - What will it cost?

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

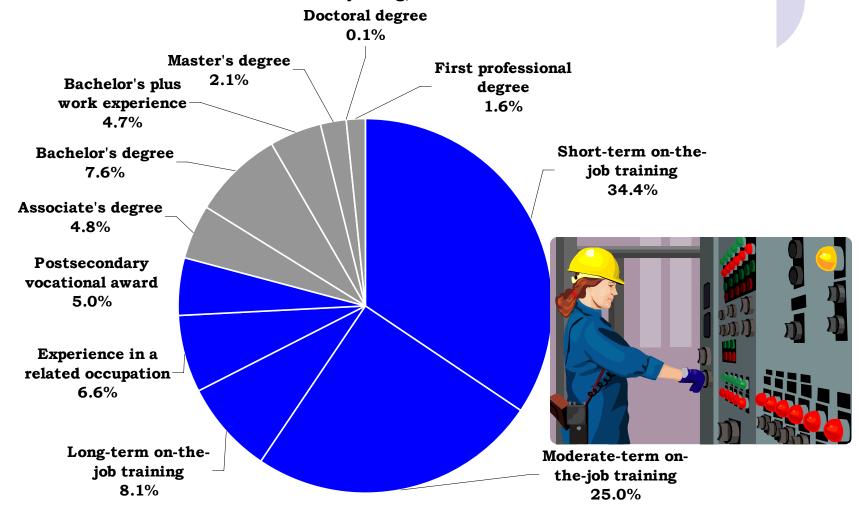




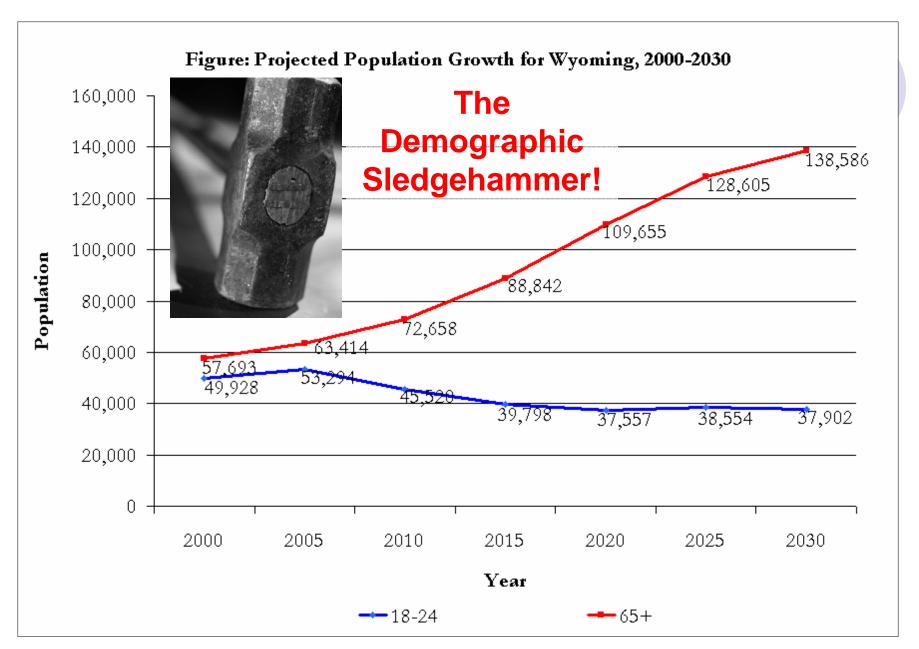
Rapid Loss of Younger Workers

- What will future labor supply look like?
- Happy about "Hath-Away"?
 - Students already game the system market response
 - OUse to recruit "moms and dads"?
 - Students train for jobs not available in WY
- How do we RETAIN workers?
 - Current strategies focus mainly on attraction
 - No coordinated statewide strategies or policies for retention
 - No coordinated statewide strategies or policies designed around family needs once workers arrive
- •What do they want?
 - Affordable health care/benefits, child care
- New labor sources
 - Job Corps, corrections system
 - Disabled, retired or near-retirement workers

Distribution of Employment Growth by Typical Education/Experience Level for All Industries in Wyoming, 2012



79.1% of new jobs created in Wyoming between 2002 and 2012 will *not* require a college degree



What About the Infirmed and the Elderly?

(from Nurses in Demand: A Statement of the Problem)

- Demographic "Sledgehammer"
- Medical needs increase with age
- More chronic illness/expensive treatments
- Geography works against us
 - Dispersed health care delivery
- Shortage of Registered Nurses to care for patients
- Where do we go from here?

National and Global Market Forces: Wyoming is NOT immune to their effects





Food for Thought:

Who influences Wyoming's economic destiny?



INDIA



http://www.theodora.com/flags





CHINA



Figure: Monthly Average Opal and Henry Hub Spot Natural Gas Prices and Wyoming Rotary **Rig Counts** \$20 120 Rotary Rig Count Data Source: Baker Hughes International \$18 108 Hurricane Hurricane Katrina Spot Natural Gas Price (\$/MMBTU) Rita \$16 96 Rotary Drilling Rig Count \$14 84 \$12 72 60 \$10 Small price differential \$8 48 \$6 36 \$4 24 Large price \$2 12 differential \$0 Price Data Source: Intercontinental Exchange 10 xGroup Opal Hub Spot Gas Price Rotary Rigs Henry Hub Spot Gas Price Date (https://www.theice.com/marketdata/naNaturalGas/naNatGasHistory.jsp)

Energy Regulation

- Environmental/Safety Concerns
 - Coal-fired power plant construction scuttled
 - Access to California energy markets
- Go Nuclear?
- Alternative energy
- Fuel Economy Standards (C.A.F.E.)
- Electric cars where do they get power?

Consequences of High Energy Prices

- Food Stocks
 - Wheat: from \$3/bushel \$10/bushel
 - Corn (ethanol) cheaper imports from Brazil not allowed
 - Livestock
 - Soybeans and other crops (bio-diesel)
- Auto Industry
 - Layoffs at Ford, GM and Chrysler
- Commodity Competition
 - Alaska Natural Gas Pipeline 4Bcf/day twice the capacity of Rockies Express
 - Liquefied Natural Gas Imports (Russia, etc.)
 >economies of scale to compete with domestic suppliers

Housing Infrastructure

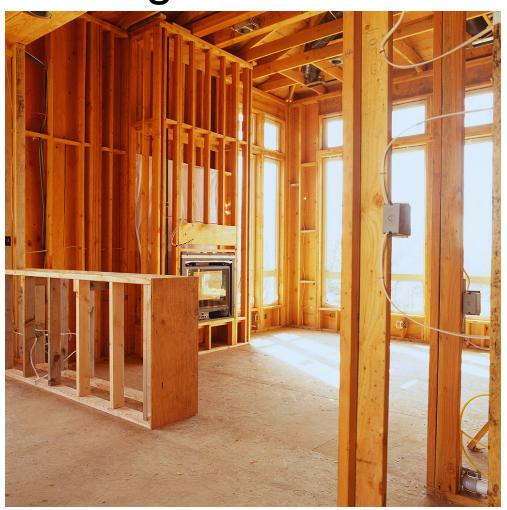
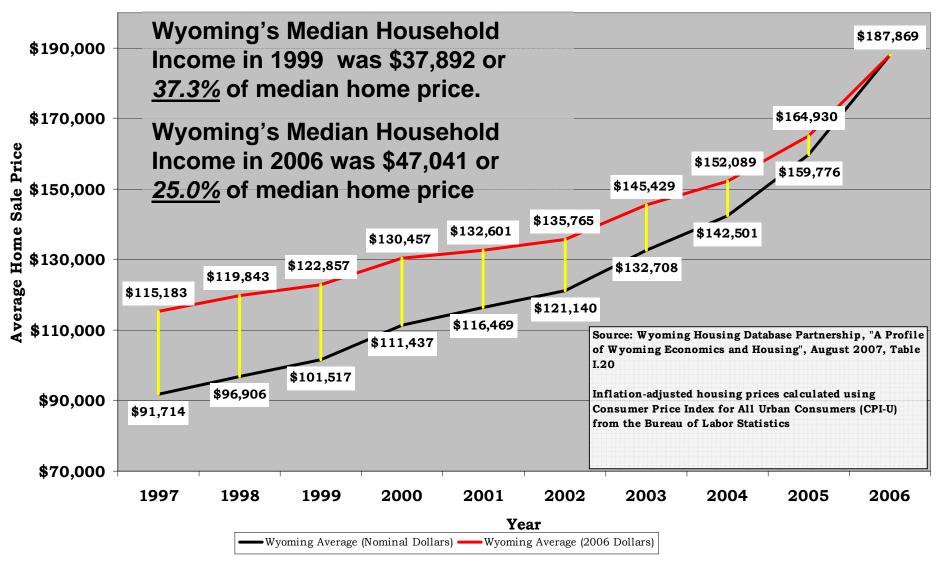


Figure: Wyoming Average Housing Prices, 1997 - 2006



Housing Infrastructure Issues

- What can be done to address the housing issue?
 - Current strategy appears to be "make hay while the sun shines"
 - What if nonresidents stop coming (regional labor competition – energy markets)?
 - Not only need housing but also...
 - Once they get here, why stay?
 - Who bears the risk?

Summary

- Opportunities We See
 - Increased revenues/budget surplus
 - New schools
 - Population growth
 - Employment and wage growth
- Challenges We Face
 - International competition
 - Young and highly educated people exit the state
 - We can recruit but we cannot retain
 - Rapidly aging population
 - Nursing shortage
 - Urban planning/housing





Questions?