



How Do We Establish Need?

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Patient Protection and Affordable Health Care Act

HR 3590 (PL111-148)

Title V – Health Care Workforce

Section 5001. The purpose of this title is to improve access to ... health care services by ...

(1) ... gathering and assessing comprehensive data in order for the health care workforce to meet the health care needs of individuals, including research on the supply, demand, distribution, diversity, and skills needs of the health care workforce ...





Patient Protection and Affordable Health Care Act

HR 3590 (PL111-148)



Title V – Health Care Workforce

Section 5101. National Health Care Workforce Commission.

(A) Utilize existing information ... including coordination with the Bureau of Labor Statistics ...



Patient Protection and Affordable Health Care Act

HR 3590 (PL111-148)



Title V – Health Care Workforce

Section 5102. State Health Care Workforce Development Grants.

- (5) Required Activities. ... shall carry out the following:
- (A) Analyze state labor market information in order to create health care career pathways for students and adults, including dislocated workers.



Patient Protection and Affordable Health Care Act

HR 3590 (PL111-148)

Title V – Health Care Workforce

Section 5102. State Health Care Workforce Development Grants.

Implementation Grants. –

(A) ... enable such state partnerships to implement ... a coherent and comprehensive plan for health workforce development that will address current and projected workforce demands ...





Patient Protection and Affordable Health Care Act

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Title V – Health Care Workforce

Section 5103. State Health Care Workforce Assessment.

(2)(b)(1) Establishment. -- ... the National Center for Health Workforce Analysis.

(A) Provide for the development of information describing and analyzing the health care workforce ...

(d) Increase in Grants for **Longitudinal Evaluations** ...



How Do We Indentify Needs?



What is “need”?

- “A statement about the capacity to benefit from services that maintain, enhance, or prevent deterioration in health status for individuals or groups ...”
- “Indirect measures of relative health care needs have been developed from demographics, mortality rates, and population surveys.”

(Reid, et al., 2002)



How Do We Indentify Needs?



- “The premature mortality rate (deaths before the age of 75 years) is generally considered to be the best single proxy of overall population health needs that is currently available ...”

- “The main rationale for using premature mortality comes from its high correlation with self-reported chronic sickness ...”

(Reid, et al., 2002)

Reid, et al. (2002). Assessing Population Health Care Need Using a Claims-based ACG Morbidity Measure: A Validation Analysis in the Province of Manitoba



How Do We Indentify Needs?

Limited List: Health Determinants and Health Outcomes
Set of Leading Health Indicators

1. Physical environment
2. Poverty
3. High school graduation
4. Tobacco use
5. Weight
6. Physical activity
7. Health insurance
8. Early detection of cancer
9. Preventable deaths from injury
10. Disability





How Do We Indentify Needs?

- In rural areas, many populations are underserved
- Urban focus
- Unemployment rate
- Dependency ratio (young + elderly / middle aged)
- Poverty



6/15/2011

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<http://doe.state.wy.us/LMI>



How Do We Indentify Needs?

Patient Protection and Affordable Care Act of 2010

Sec. 5602

Directs the Secretary, in consultation with the stakeholders, to establish a comprehensive methodology and criteria for designating medically underserved populations and Health Professional Shortage Areas.



Components of the Human Resources Feedback System

Labor Supply

Aggregate Grads
(CIP)

TBA: UW/R&P
MOU*

Labor/Supply-Demand

BLS/R&P:

- Health Care Employment and Payroll*
- Occupational Staffing and Wage Survey

R&P

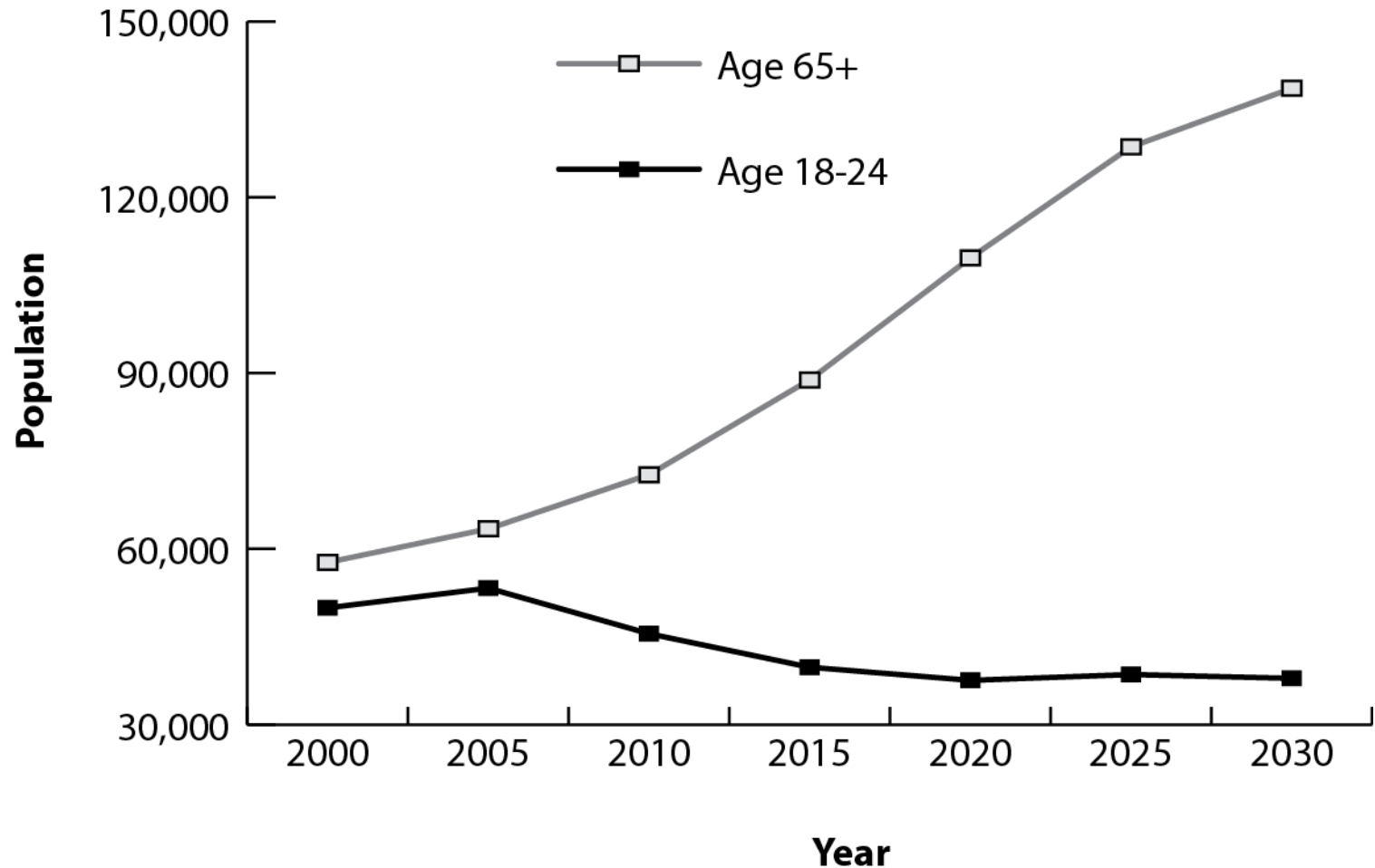
- WC Hours Worked (FTE)*
 - Licensed Occupation*
 - Projections
 - New Hires

Demand

Population

- Counts
- Estimates
- Characteristics

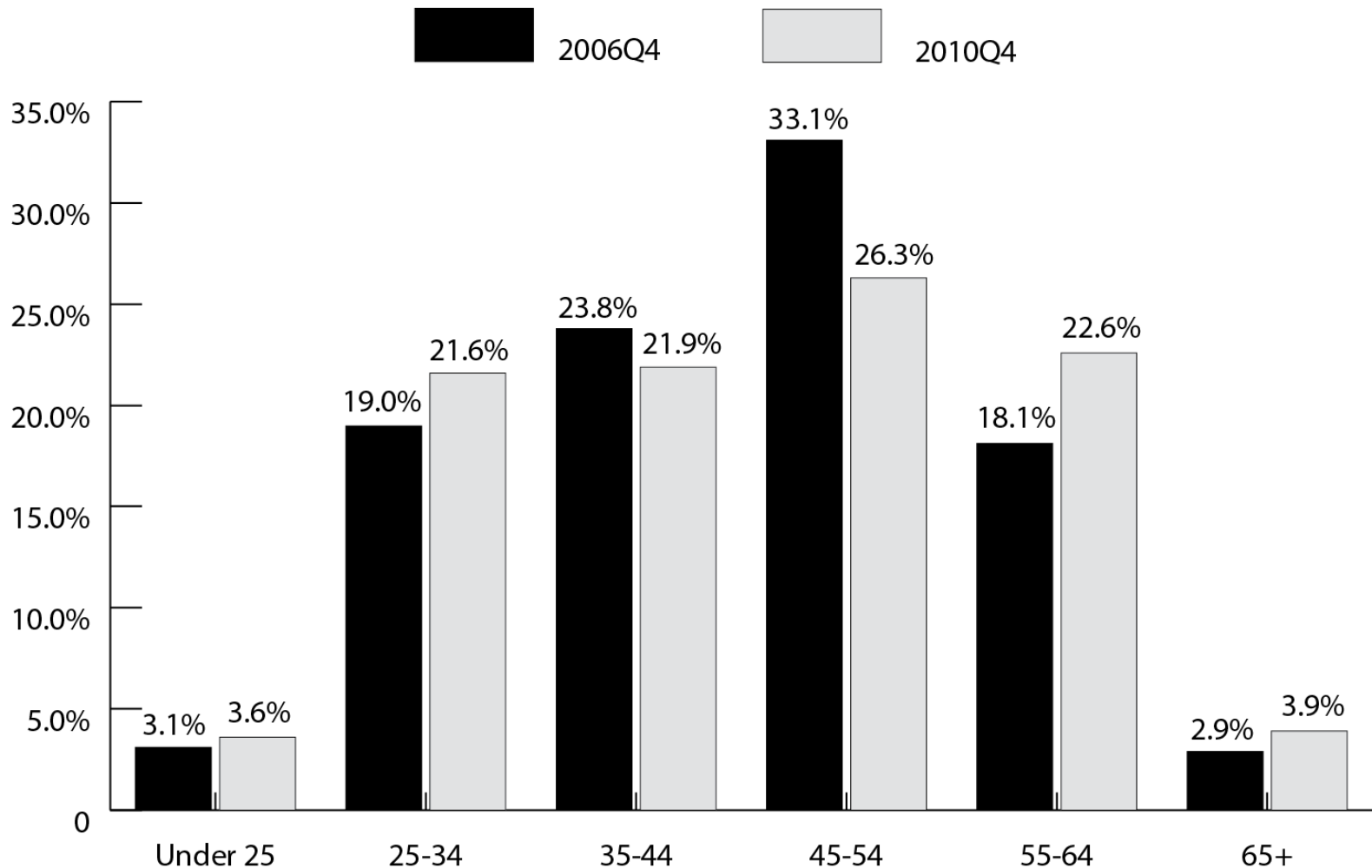
The Demographic Sledgehammer



Median Age of Registered Nurses Working in Wyoming

County of Work	Median Age	
	2006Q4	2010Q4
Fremont	48.4	52.0
Goshen	50.5	52.1
Laramie	44.5	42.9
Natrona	45.2	44.2
Platte	35.6	51.4
Sweetwater	57.3	58.5
Sublette	44.4	41.7
Uinta	40.2	40.3
Albany/Carbon	44.8	43.2
Big Horn/Park	47.9	47.2
Converse/Campbell	44.8	45.1
Crook/Weston/Niobrara	49.4	50.0
Hot Springs/Washakie	50.3	48.4
Johnson/Sheridan	50.3	48.3
Teton/Lincoln	47.6	48.1
Wyoming	46.5	46.4

Age Distribution of Registered Nurses Working in Wyoming, 2006Q4 and 2010Q4





Licensed Nurses in Wyoming

In 2010, there were 1,979 registered nurses and advanced practice nurses licensed in Wyoming that were not licensed in 2008.

Where did these nurses come from?



Licensed Nurses in Wyoming

States of Origin for Registered Nurses and Advanced Practice Nurses Licensed in 2010 and Not Licensed in 2008

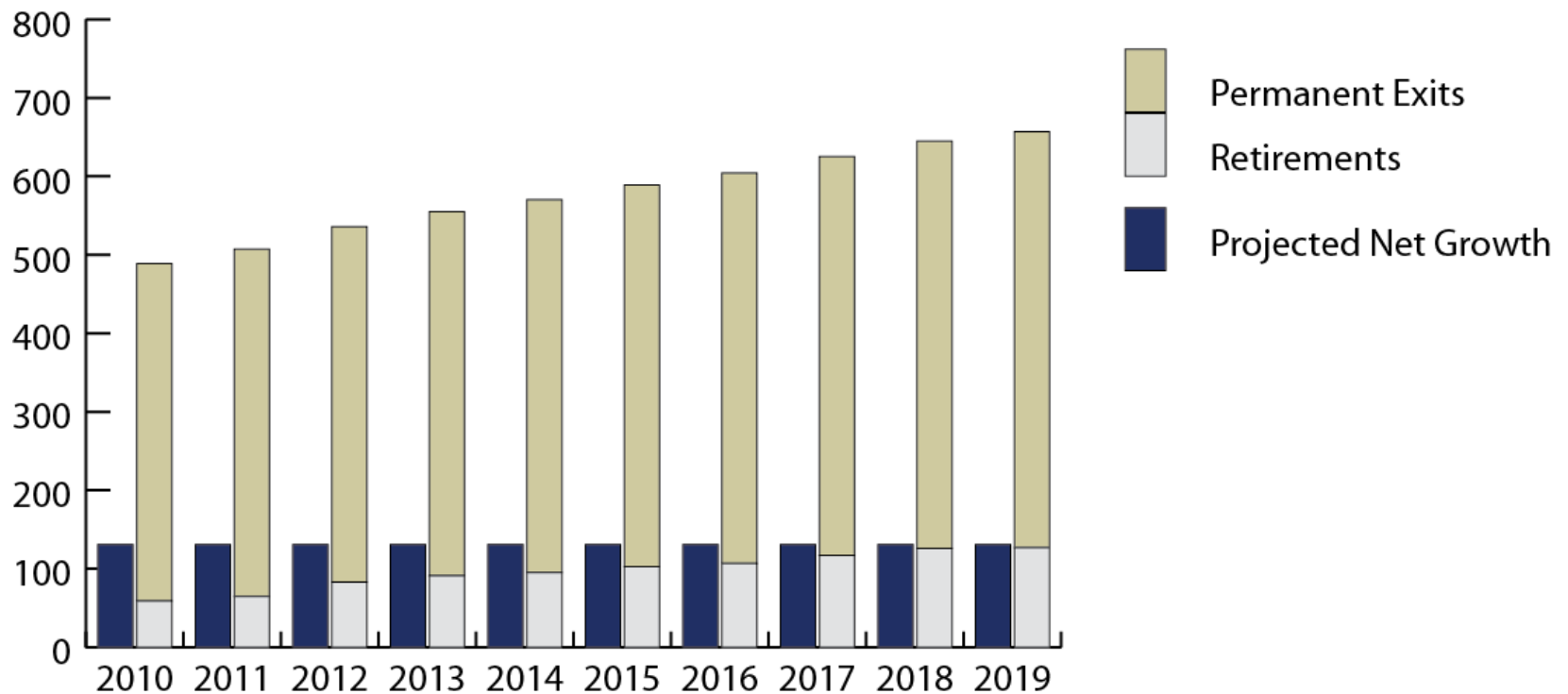
State of Origin	N	Percent
WY	210	10.6
NY	168	8.5
IL	117	5.9
CO	107	5.4
CA	93	4.7
IN	71	3.6
NE	71	3.6
TX	70	3.5
KS	67	3.4
OH	61	3.1
All Other	944	47.7
Total	1,979	100.0

How Do We Indentify Needs?

Who Will Fill These Jobs?

Occupation				2009 WY College Completers	2009 Employment	2010-2019 Annual Occupational Employment Projections														Average Annual Openings	College Completers Compared to Avg. Annual Completers	New Hires		N New Hires Compared to 2010 Openings
Code	Title	Category	License Required	N	N	Source of Openings	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	N		N	Wage (\$)				
29-1111	Registered Nurses	Primary Care Occupation	Yes	488	4085	Total	621	638	667	688	701	720	735	758	776	788	630	-142	772	23.05	151			
						Growth	131	131	131	131	131	131	131	131	131	131								
						Exit	430	442	455	464	475	486	497	508	519	530								
						Retirement	59	65	83	91	95	103	107	117	126	127								
29-1123	Physical Therapists	Primary Care Occupation	Yes	2	440	Total	59	61	64	65	67	69	71	73	74	76	60	-58	100	32.00	41			
						Growth	13	13	13	13	13	13	13	13	13	13								
						Exit	40	42	43	44	45	47	48	49	50	51								
						Retirement	5	6	7	8	8	9	10	10	11	11								
29-1124 & 29-2034	Radiation Therapists & Radiologic Technologists and Technicians	Primary Care Occupation	Yes	64	435	Total	55	56	59	61	62	64	65	67	69	70	56	8	38	N.D.	-17			
						Growth	13	13	13	13	13	13	13	13	13	13								
						Exit	37	38	39	40	41	42	44	45	46	47								
						Retirement	5	6	7	8	8	9	9	10	11	11								
31-0001	Dental Assistants	Primary Care Occupation	No	0	521	Total	74	75	79	81	83	86	89	91	93	95	75	-75	364	12.50	290			
						Growth	18	18	18	18	18	18	18	18	18	18								
						Exit	49	51	53	54	56	58	59	61	62	64								
						Retirement	7	7	8	9	10	10	12	12	13	14								
31-0002	Medical Assistants	Primary Care Support Occupation	No	0	498	Total	70	72	75	77	79	81	84	86	87	90	71	-71	272	12.00	202			
						Growth	16	16	16	16	16	16	16	16	16	16								
						Exit	48	49	51	52	54	56	56	58	59	61								
						Retirement	7	7	8	9	10	10	11	12	12	13								

Projected Annual Job Openings for Registered Nurses in Wyoming, 2010-2019 by Source





Average Age and Quarterly Wage for Select Licensed Occupations



Occupation: Dentist

Number: 182

Average Quarterly Wage: \$35,430

Average Age: 48.1

Occupation: Physical Therapist

Number: 312

Average Quarterly Wage: \$15,775

Average Age: 42.5

Occupation: Respiratory Care Technicians

Number: 250

Average Quarterly Wage: \$12,547

Average Age: 44.7

How Do We Indentify Needs?

Employment Need based on National Staffing relative to the Population

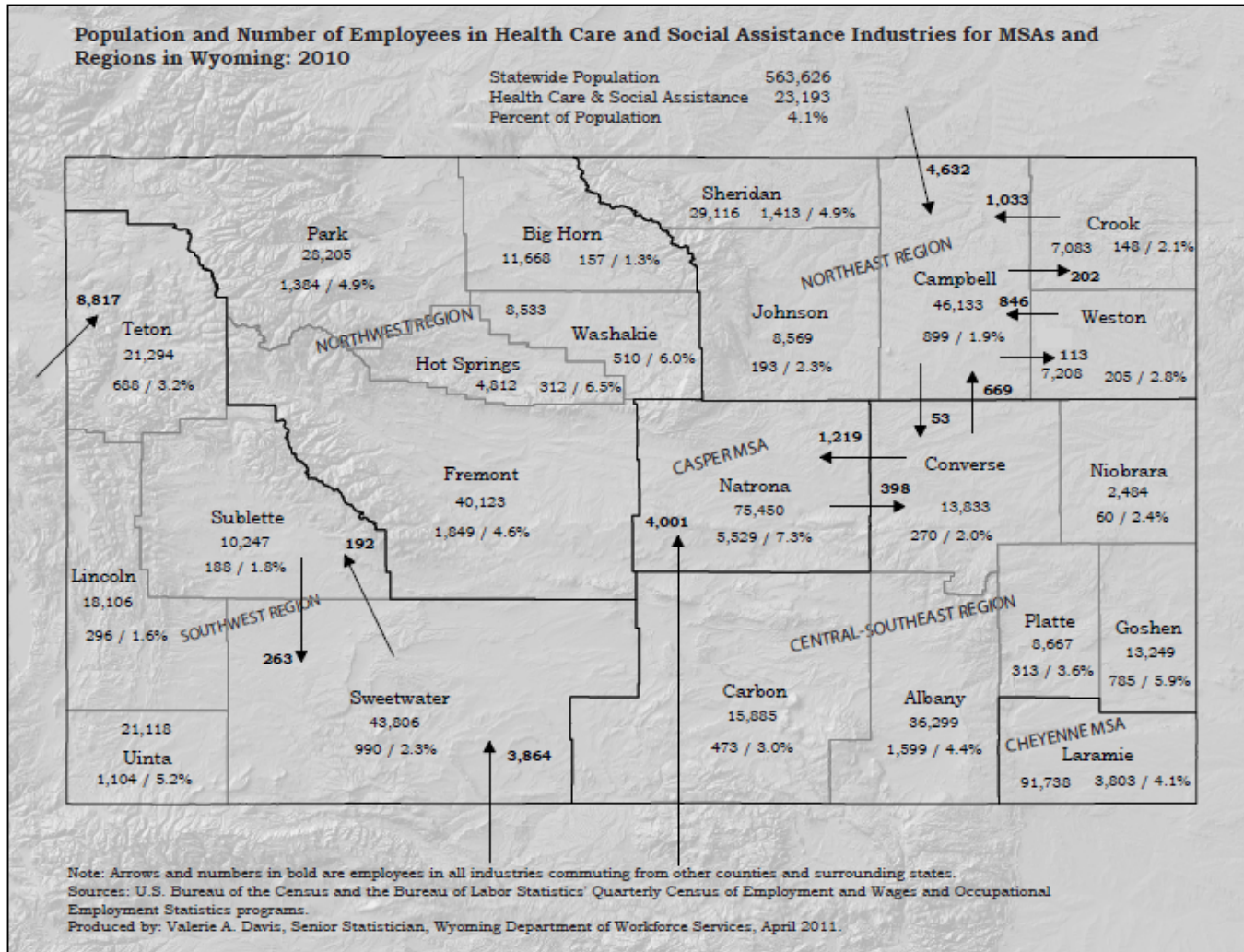
(Occupational Employment Statistics/Bureau of Labor Statistics)

Select Healthcare Workforce Occupations by Area and Need Relative to National

SOC CODE	SOC TITLE	US Employment	US Rate per 10,000	Red Positive
				WY Need
21-1013	Marriage and Family Therapists	33,050	1.06	39
21-1014	Mental Health Counselors	110,300	3.53	17
21-1015	Rehabilitation Counselors	111,490	3.57	-22
29-1111	Registered Nurses	2,655,020	84.97	-1
29-1062	Family and General Practitioners	97,820	3.13	-247
29-1065	Pediatricians, General	30,100	0.96	-6
29-1066	Psychiatrists	22,690	0.73	6
29-1067	Surgeons	43,230	1.38	-21

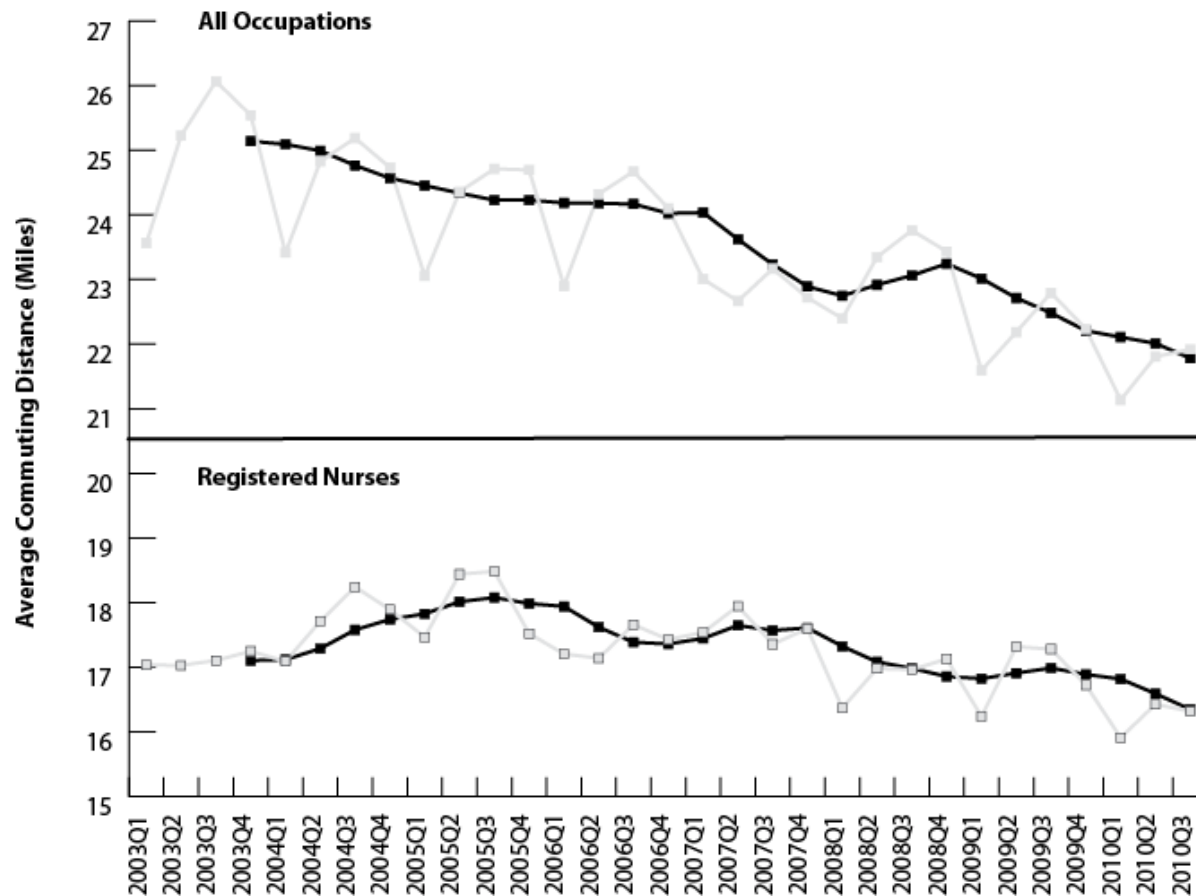
How Do We Indentify Needs?

Health Care & Social Assistance (NAICS 62) and Population



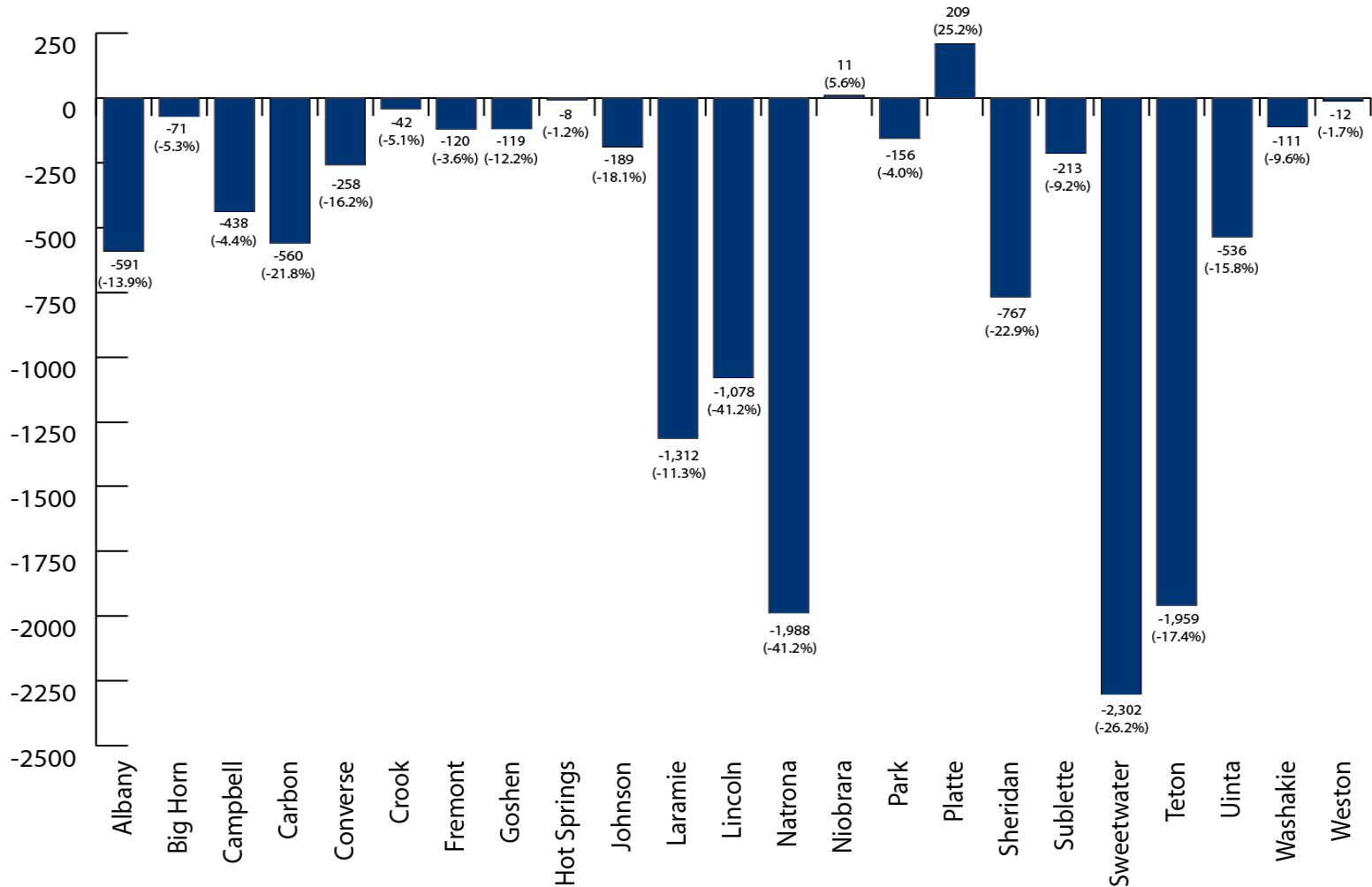
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Commuting: Average Commuting Distance Declines



How Do We Indentify Needs?

Commuting: Inflow Declines with Economic Downturn



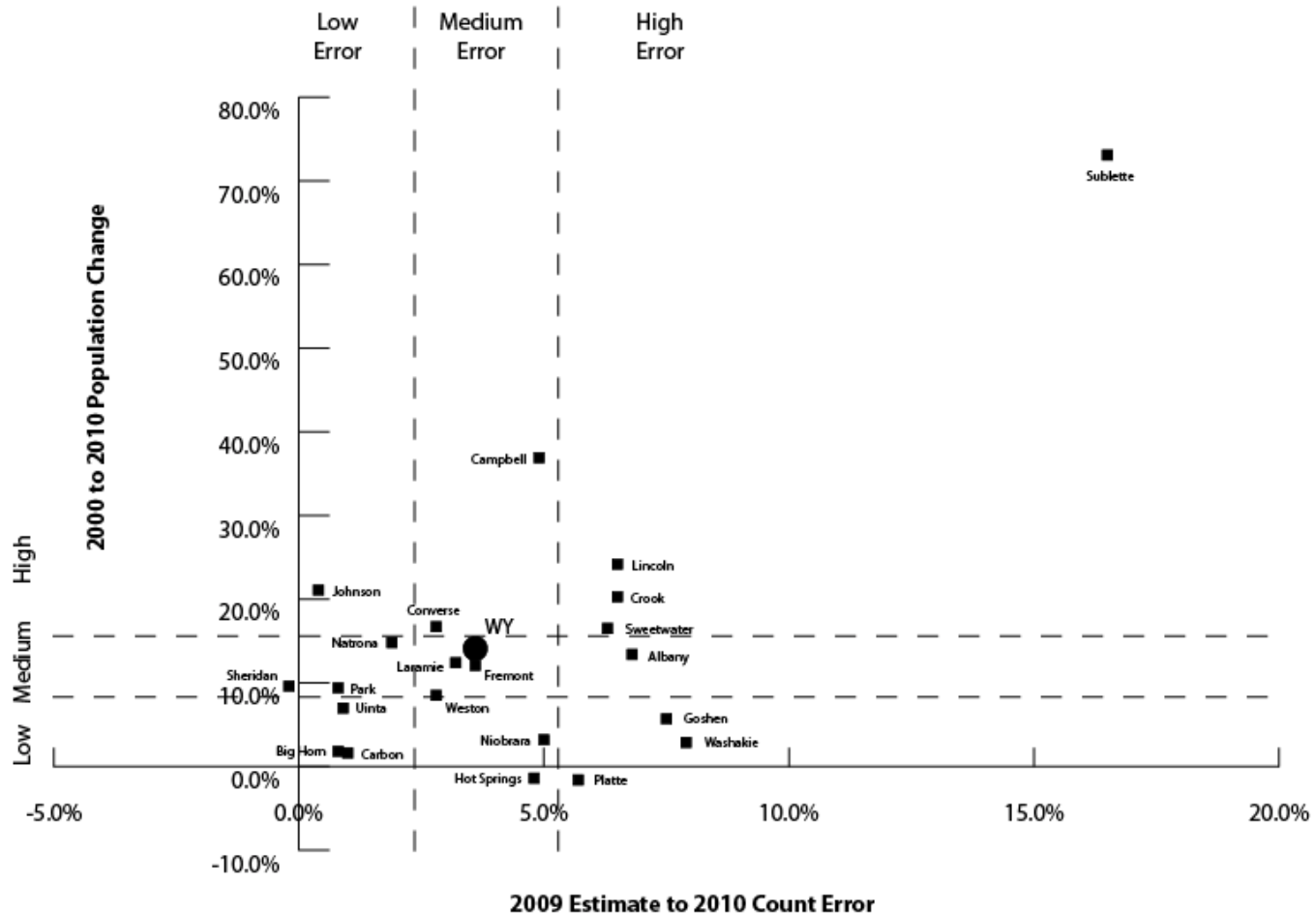


Four Proposals

1. Population-Based Deficit
2. Replacement Need (Age)
3. Track Graduates and Licensees into the Market
4. Premature Deaths



Population Changes and Estimates Error in Wyoming, 2000-2010





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