

Demographic State of the State

A Practical Application of QWI Data

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The background of the slide is a composite image. It features a large, stylized flag with a blue top section and a white bottom section, waving against a sky with golden, sunlit clouds. Below the flag, there are rolling green hills. The Oklahoma Commerce logo is overlaid on the white section of the flag.

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Setting the Stage

- Oklahoma's Demographic State of the State published approximately every 2 years
- While originally viewed as a standard demographic report, focus over last decade has taken more of a “workforce” direction
- Recent topics include:
 - Commuting Patterns & Daytime Population (2006)
 - Labor Force Characteristics & Trends By Workforce Investment Area (2005)
 - Census 2000 Demographics Of The House & Senate Seats Of The Second Regular Session Of The 48th Legislature (2002)
 - State, County, City & Metropolitan Population Trends (2000)

Setting the Stage

- Oklahoma's Department of Commerce had already produced two high profile workforce reports
 - Oklahoma's Health Care Industry Workforce: 2006 Report
 - Nationally recognized by ACCRA (now C2ER)
 - Instrumental in securing \$5 million in new annual state funding for nursing programs
 - Oklahoma's Aerospace Industry Workforce: 2007 Report
 - Instrumental in supporting new state tax incentives supportive of the state's aerospace industry
- We wanted a strong follow-up topic for 2008's Demographic State of the State report
- That's when we decided to use QWI data...

Why Did We Choose QWI?

Quarterly Workforce Indicators

<http://lehd.did.census.gov/led/datatools/qwiapp.html>

- Comes from a trusted source: Local Employment Dynamics partnership
- Combines Census demographic information with Labor Market Information agencies
- Gave us a chance to look at information not available before
- Data had opportunity for “other state” comparisons
 - Available for nearly all 50 states, currently excluding just Massachusetts and New Hampshire

How Did We Start?

LED HotReports | QWI Online | Onlinemap version 2 | Onlinemap version 3 (Beta) | Industry Focus | Corner

Print

QWI Online [NAICS]

LEHD State of Oklahoma County Reports - Quarterly Workforce Indicators
Select Criteria below. A new report will be created below as selections change.

Year: 2007
Quarter: Q2
Sex: Male and Female
AgeGroup: 14-99

Geographic Grouping: County or [Information by Detailed Industry](#)
County: 001 Adair
Industry: All NAICS Sectors
Ownership: All(1-5)

[Download Dataset](#) [Print Table](#)

QWI Quick Facts	Adair (Q2)	Adair (Avg:Selected + 3 Prior qtrs)	Oklahoma (Q2)	Oklahoma (Avg:Selected + 3 Prior qtrs)
Total Employment	5,598	5,341	1,473,855	1,451,227
Net Job Flows	-91	37	36,275	10,729
Job Creation	289	277	119,898	86,218
New Hires	1,136	1,053	334,114	294,599
Separations	1,447	1,194	375,489	333,504
Turnover	13.5%	11.5%	12.1%	11.7%
Avg Monthly Earnings	\$2,330.00	\$2,125.75	\$3,043.00	\$3,006.50
Avg New Hire Earnings	\$1,783.00	\$1,485.50	\$2,141.00	\$1,948.25

[View Detailed Comparison Reports](#)
[For more information](#)

A – Drill down options

B – County level data, including requested quarter and prior year's data

C – State level data, including requested quarter and prior year's data

D – Quick compilations of data

<http://lehd.did.census.gov/led/datatools/qwiapp.html>

What Data Did We Get?

- **Year** – Oklahoma goes back to 2000 (limited 1q2000 data)
- **Quarter** – Can find partial information for most recent quarter, and full information available for prior quarters
- **Gender** – male, female, or both
- **Age** – 14-99; 14-18; 19-21; 22-24; 25-34; 35-44; 45-54; 55-64; 65-99
- **Geography** –
 - County (77 Counties)
 - Metro (21 Metropolitan and Micropolitan Statistical Areas, plus nonmetro/nonmicro area)
 - WIA – (now 11 Workforce Investment Areas)
- **Industry** – Can drill to the 4 digit NAICS level

But We Want It In Bulk!

- Cornell Institute for Social and Economic Research (CISER) provides full access to very detailed public use data files at:

<http://www.vrdc.cornell.edu/qwipu/>

A Great Big **Thank You** to CISER!



A Few Caveats...

- Users are assumed to know and understand statistics
- Files published in Gunzip format: www.gzip.org
 - After downloading, we extracted data using 7zip: www.7-zip.org
 - Files extracted into *.csv format
 - *.csv files are too big to open directly into Excel
- Due to file size, SAS, Oracle, SQL Server or other database tool necessary to view and manipulate data
- Once file is opened, can strip out required detail and export to Excel or other spreadsheet

...And A Few More Caveats

- Definitions
 - Reported employment is as of beginning of the quarter
 - Full definitions available at http://lehd.did.census.gov/led/library/techpapers/Brookings_QWI.pdf
- Consistency
 - Data is “raked” at the county level to ensure consistency with BLS reported county level employment totals
- Confidentiality
 - Where values are small, Census protects confidentiality
 - Reported figure may be distorted or “fuzzed”
 - Fuzz factor stays constant over time
 - Data may be suppressed if fewer than 3 individuals meet criteria

How Census Adjusts Data

Cornell data includes columns with guidance on data adjustment

- 2 No employers operate in this category during this quarter
- 1 Required historical or future wage record data are not available
- 0 No employment in this age, sex category
- 1 The value is not significantly affected by the disclosure protections
- 5 This value has been suppressed because it does not meet Census Bureau publication standards
- 9 The value has been significantly distorted to protect confidentiality

What We Finally Delivered



- Report delivered to Governor and Legislature in June 2008
- Has been well received by
 - State and local officials
 - Educators
 - Researchers
 - Others seeking insight into Oklahoma's workforce situation

http://www.okcommerce.gov/Libraries/Documents/2008_Demographic_State_of_the_State_2207082506.pdf

We Made It Simple

QWI gives depth and clarity to local employment characteristics and expanding on the usual Bureau of Labor Statistics figures for employment and unemployment

We focused on a few key points:

- Time (2000 – 2006)
- Gender
- Age
- Industry at the 2 digit NAICS level
- Beginning of quarter employment

We could just as easily have looked at:

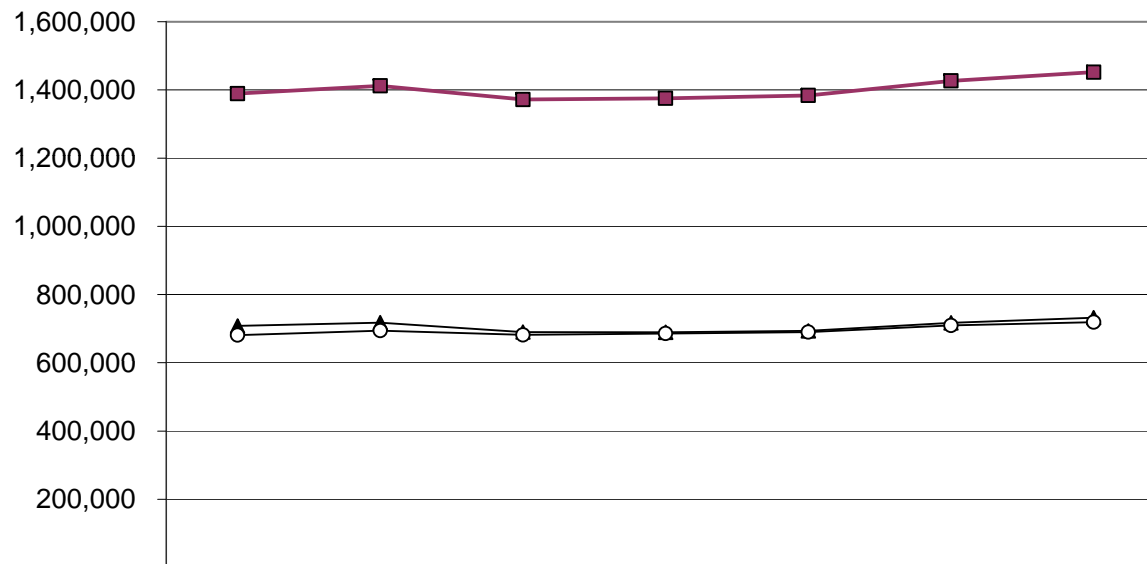
- New hires
- Separations
- Other criteria

And When I Say Simple...

- We created 3 graphs and 1 table for each age category, showing:
 - Simple average annual employment by age group as value and percent of total
 - Simple average annual employment within that age group by gender
 - Year over year growth rates within simple average by gender
 - Table of top five industries by percentage of jobs held, by gender, within that age group
- We supplemented statewide data with similar analysis at the county level

Some Examples

OKLAHOMA'S AVERAGE ANNUAL EMPLOYMENT
Statewide Workforce by Gender

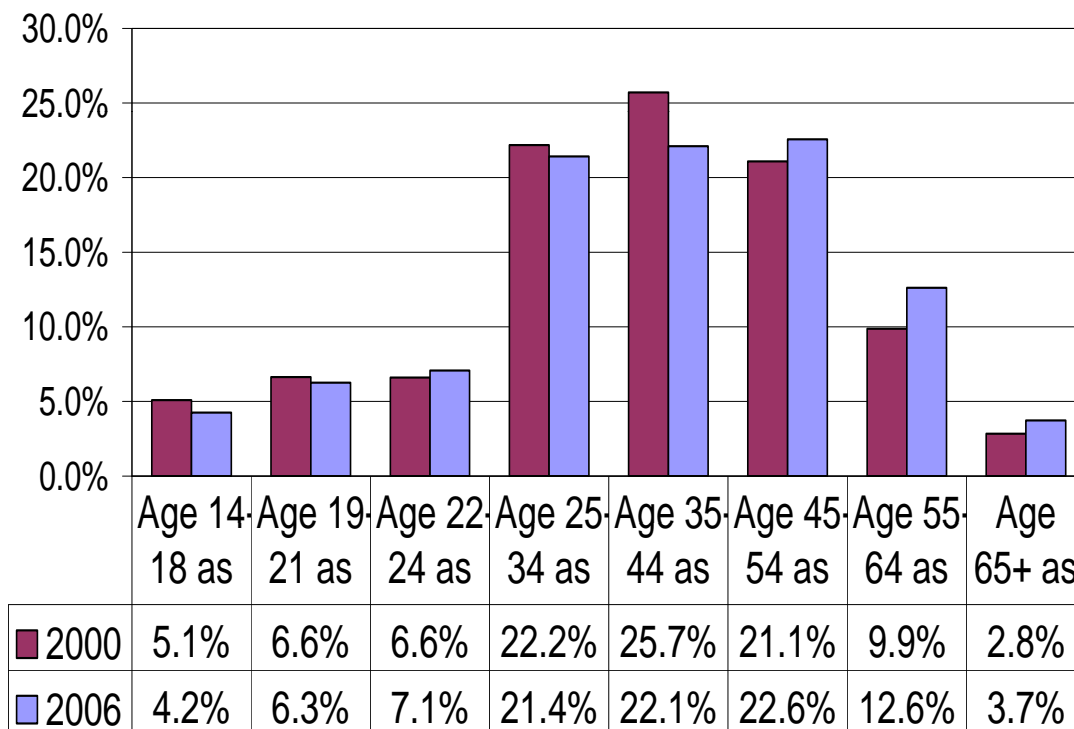


- Average annual jobholder count grew from 1.39 million to 1.45 million
- Analysis at county level showed growth was not evenly distributed

	2000	2001	2002	2003	2004	2005	2006
■ Both Genders	1,389,300	1,411,958	1,371,546	1,375,501	1,383,568	1,426,520	1,451,832
▲ Male	708,126	717,789	690,058	689,356	693,192	717,290	732,546
○ Female	681,174	694,168	681,487	686,145	690,376	709,230	719,286

Some Examples

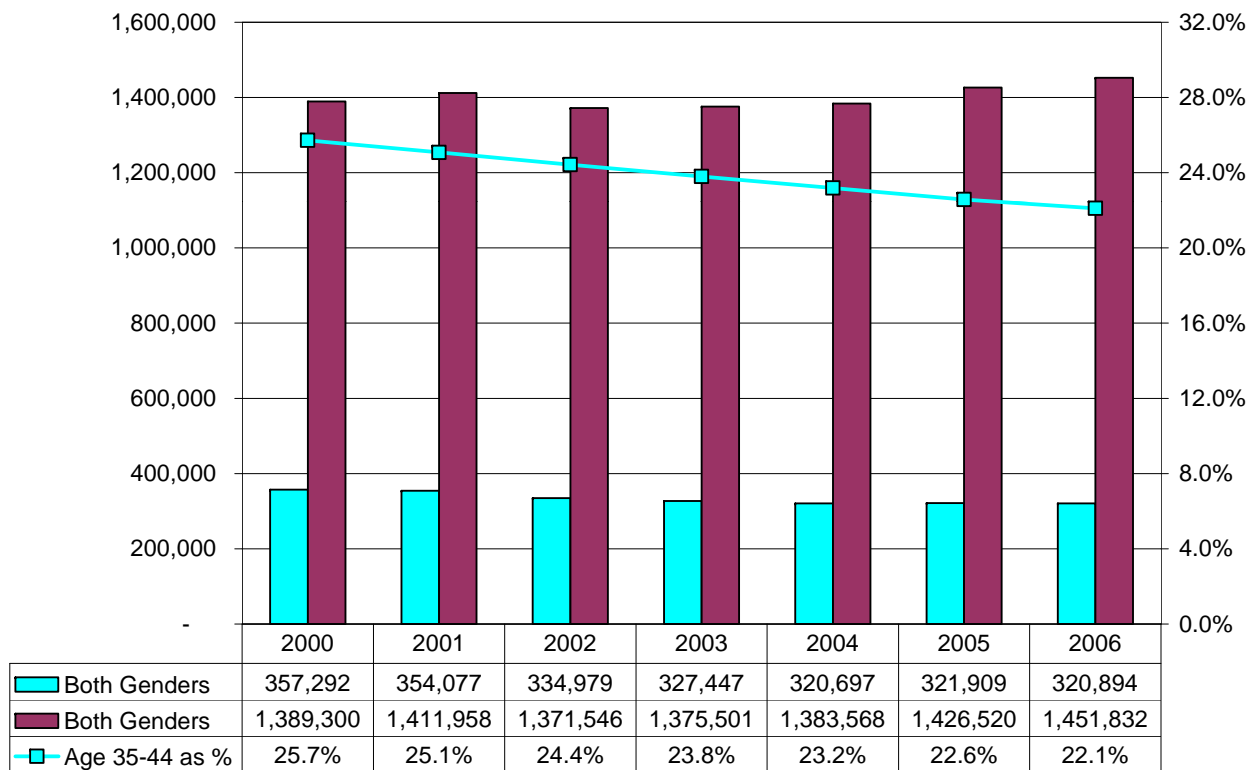
OKLAHOMA'S AVERAGE ANNUAL EMPLOYMENT
Age Group as Percent of Total Employment



- Oklahoma experienced net gains in jobs held by the population aged 55 and over
- Analysis by gender showed the gain was more pronounced among women in that age group

Some Examples

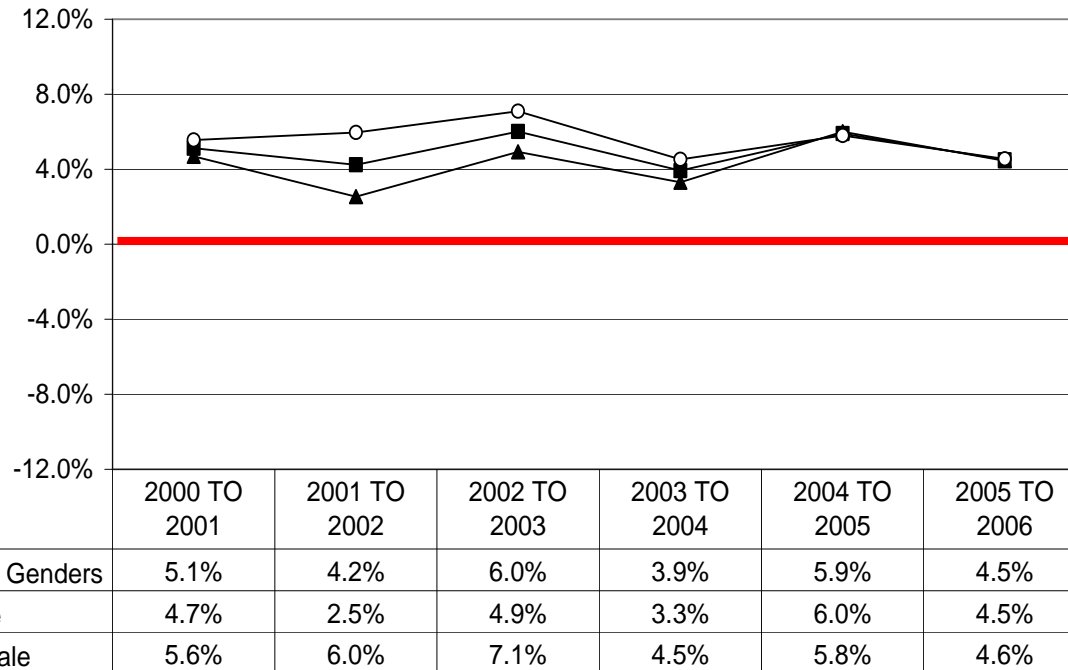
OKLAHOMA'S AVERAGE ANNUAL EMPLOYMENT
Workers Aged 35 to 44



- Between 2000 and 2006 the number of Oklahoma jobholders aged 35 to 44 dropped from one in four
- The rate moved closer to one in five

Some Examples

OKLAHOMA'S YEAR OVER YEAR GROWTH RATES
Changes in Average Annual Job Counts by Gender
For Workers Aged 55 to 64



- Between 2000 and 2005, workers aged 55 to 64 had either the first or second fastest “year-over-year” growth rate among all age groups

Some Examples

TOP FIVE INDUSTRIES BY PERCENTAGE OF JOBS HELD OKLAHOMA JOBHOLDERS - AGED 45 TO 54 BY GENDER BASED ON 2006 ANNUAL AVERAGE EMPLOYMENT		
MALE	FEMALE	BOTH GENDERS
Educational Services (7.4%)	Educational Services (18.3%)	Educational Services (13.0%)
Administrative & Support Services (6.5%)	Hospitals (7.9%)	Administrative & Support Services (5.9%)
Professional, Scientific, & Technical Services (4.5%)	Ambulatory Health Care Services (7.5%)	Hospitals (5.0%)
Specialty Trade Contractors (4.3%)	Administrative & Support Services (5.3%)	Ambulatory Health Care Services (4.7%)
Machinery Manufacturing (3.9%)	Professional, Scientific, & Technical Services (4.6%)	Professional, Scientific, & Technical Services (4.6%)

- Educational Services was the top employer for all jobholders over the age of 45
- At least one in six working females between the ages of 45 and 54 were employed in the Educational Services industry

An Assessment

The good ...

- QWI gives workforce insight that wasn't previously available
- Extremely valuable information for Economic Development and Business Recruitment efforts
- Works great if you have a specific industry, age group, or geographic area of focus

...the bad...

- Can be cumbersome if you want large volume insight while browsing, (but there have been improvements)
- Large blocks of data by different geographies can be difficult to gather without appropriate software
- Data is not occupational specific

An Assessment

...and the unknown

- What happens when QWI results are cross compared against other tools?
 - Bureau of Labor Statistics occupational specific data?
 - Census 2010 or American Community Survey results?
 - Third party fee based services?
- Census is sure to welcome comments as users become more familiar with this tool

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