

# Labor Market Dynamics: A Spatial and Sectoral Analysis of Employment Changes in the Phoenix MSA

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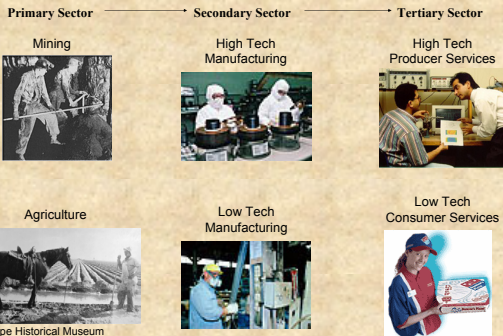
## Abstract

This poster presents a survey of changes between 1983 and 1998 in the industrial and occupational structure of the Phoenix metropolitan area. Phoenix exemplifies the Sunbelt in its reliance on the New Economy, which is defined by an emphasis on technology, flexible capital, and information. To date, most labor market research has focused on consequences of deindustrialization of the East and Midwest U.S. for their cities and residents. We fill this gap by examining whether the current economic prosperity brought by the New Economy is shared equitably by all segments of society. We employ data from three federal agencies to develop area economic profiles, including the location and gender/racial composition of occupations in individual firms (Equal Employment Opportunity Commission), wages for occupations in each area (Bureau of Labor Statistics), and social indicators on urban neighborhoods where employers are located (Census). A more detailed investigation separates industrial activity into high- and low-technology classifications. We then examine the distribution of "good" and "bad" jobs, as defined by average wages and skill level requirements among race/ethnic and gender categories and compare this with demographic changes for these subpopulations. With this information, we assess the employment condition of each of these groups. Results indicate that Phoenix experienced job growth across all industrial sectors from 1983 to 1998 and that, unlike cities of the East and Midwest, the central city retained its job base. Phoenix continues to be dominated by manufacturing and producer services, but these industries have lost market shares due to growth in other services. Within these categories, high-technology activities are concentrated into a few industries while low-technology activities are more diverse. White women made advances in professional/managerial (high quality) jobs while Hispanic men gained market share of employment in laborer/operative (low quality) jobs. Finally, sex segregation decreased (net of changes in the occupational structure) across occupations from 1983 to 1998.

## Research Questions

1. Has the relocation of employers affected the occupational, gender, or racial/ethnic composition of their workforces? What are the employment patterns of new industries moving into a region?
2. What impact has the expansion or contraction of employment in different occupations and industries had on employment levels for women and men of different racial/ethnic backgrounds?
3. Are changes in the industrial or occupational structure related to the degree of occupational segregation between women and men and between racial/ethnic groups of workers?
4. Has job relocation or restructuring affected the wage gaps between men and women and between racial/ethnic groups of workers?
5. Are occupations polarizing into high and low wage jobs with few in the middle-wage categories? If so, are these high- and low-wage occupations segregated by race/ethnicity or by sex?

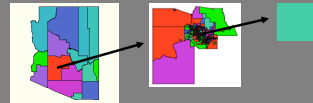
## Transformation of the U.S. Economy During the Past 100 Years



## Labor Market Dynamics and CAP LTER

Labor market issues provide a link between humans and the ecosystem. Employment is a major driver in human migration both between and within metropolitan areas. This migration, combined with companies' location choices, results in ecosystem disturbance.

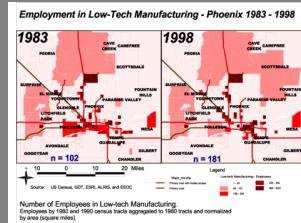
### UNIT OF ANALYSIS = CENSUS TRACT



Arizona 1998	Maricopa County	Census Tract 1998
Population approx 4,668,631 lines represent county boundaries	Population approx 2,784,075 (lines represent census tract boundaries)	Population approx 4,000

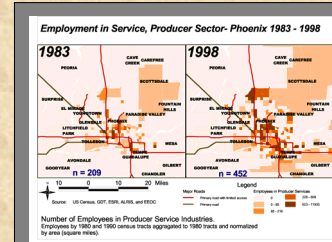
### Data

1. U.S. Census Bureau – Tract-Level Population and Housing data 1980 and 1990
2. Equal Employment Opportunity Commission – Annual Reports in Individual Establishments in Phoenix for years 1983 and 1998
3. U.S. Department of Labor – Metropolitan Area Occupational and Wage Estimates



### Main Points

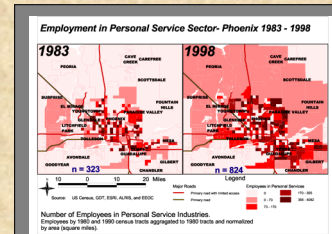
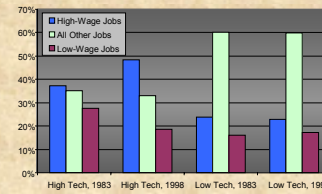
- This map depicts employment density in the low-tech manufacturing sector.
- Central city Phoenix experienced job loss in low-tech manufacturing.
- Areas near transportation corridors maintained or added to their job base.
- Low-tech manufacturing jobs increased in the Scottsdale/Fountain Hills areas.



### Main Points

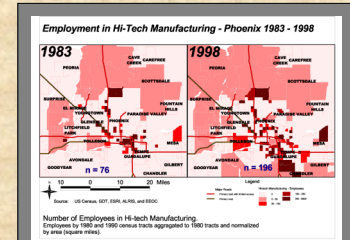
- Producer services include: FIRE (Finance, Insurance, and Real Estate), PST (professional, scientific, and technical), and information.
- Tremendous job growth in central Phoenix, and North and East Valley cities.

## Job Polarization in High- and Low-Tech Sectors, 1983 and 1998



### Main Points

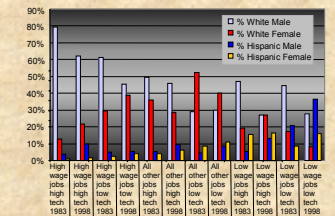
- This map depicts employment density in the personal services sector.
- Personal service jobs pay lower wages on average than other service sector jobs.
- The Valley experienced explosive growth in personal service jobs from 1983 to 1998.
- This growth occurred all across the Valley, including central city Phoenix.



### Main Points

- This map represents density of high-tech manufacturing jobs within Census tracts.
- Most change in hi-tech manufacturing job location due to absolute growth rather than firm migration.
- Pattern stands in firm contrast to most Eastern and Midwestern cities.
- New locations are in newer affluent suburbs with residential development in this same period. Previously undeveloped land.
- Central city phoenix is not following out in terms of high-tech manufacturing jobs. But the suburbs are becoming employment hubs that rival the central city.

## Job Polarization, by Race and Sex



## Percent of Women Employed in High- and Low-Wage Occupations

