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Use of Administrative Data to Track Employees and Firms: The Case of Auto Workers and Their Communities

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Introduction

- The restructuring of the auto industry and the recession has caused considerable upheaval in many parts of the country.
- For many regions, particularly in the Midwest, the livelihood of displaced auto workers and the viability of their communities are in question
- For other regions, which have benefited from the restructuring, filling the demand for more auto workers is an issue
- Decision makers in both regions need accurate and current information to address the issues pertinent to their local areas
- Pose a set of questions that are perhaps more germane to a place like Michigan, which has experienced a huge structural and we hope some cyclical change in the auto industry
  - Traditionally known as the auto capital
  - Epicenter of the current restructuring in the domestic auto industry and vital importance to Michigan's economy
  - Still claims 16% of US auto jobs, down from 28% ten years ago
- Assess what data are needed to address these questions and give a few examples of what we know from these data about the situation in Michigan and mention along the way what we don't know and would like to know

Basic Questions

Where have all the auto *jobs* gone?

- Assess the magnitude and timing of the job loss. Is it cyclical or structural?
- Are the losses concentrated in a few places or more widely spread?
- Are these effected regions experiencing overall employment decline or expansion?
- What are the driving industries in these regions?
  - Identify and examine communities that have successfully transitioned away from auto jobs during the past decade of job decline in the auto sector
- What occupations are in demand?
- Examine dynamics of the auto industry—openings, closings, expansions, and contractions across detailed auto sectors and establishment size
- Examine the dynamics of the communities affected by the auto displacement—openings, closing, expansions, and contractions across industries and establishment size

Basic Questions

Where have all the displaced auto workers gone?

- Track the employment outcomes of those who were displaced by the auto industry, focusing on their …
  - Return to work either back into the auto industry or into other industries (high-growth or low-growth industries) and in what occupations
  - Relocation to other communities
  - Transition into retirement
  - Participation in workforce development programs
  - Earnings differentials before and after displacement.

Basic Questions

Where *can* all the auto workers go?

- Assess the potential of displaced auto workers to fill jobs in high-growth, high-wage industries
    - Examine related skill sets within occupations across industries (using O*Net), and then match these skill sets with those demanded by high-growth industries, such as "green jobs," identified in their local and regional labor markets.
    - Track the progress of workers in returning to work and communities in recovering from the loss of jobs, by following employment patterns and community restructuring.
- What is region's potential to generate jobs in high-growth, high-performance sectors?
    - Industry cluster analysis
    - Asset mapping, including human capital, physical capital, and social capital

Basic Questions

What is the access to workforce development, education, and economic development services?

What is the access to technical assistance by businesses?

How effective are these services?

For example, what are the participation rates and how effective are reemployment services and training in assisting displaced auto workers to regain employment?

- Document the use by auto workers of the workforce development system, specifically the WIA Dislocated Worker Program, the Wagner-Peyser Employment Service, and Trade Adjustment Assistant Program

- Evaluate, using matched comparison groups, the effectiveness of the workforce development programs on auto workers over the past few years in helping them return to work and regain their prior earnings levels

- Use the evaluation to inform decisions as to the best use of programs and services to meet the needs of workers and their communities.

What data are needed?

- Examining many of these questions requires flows not snapshots
  - Most readily available data are snapshots, but great strides have been made in providing flow data
- Worker transitions:
  - Employment to unemployment
  - New hires, separations, accession
  - Return to employment: same industry, different industry; same occupation, different occupation
  - Reemployment services; training, education
- Employer transitions:
  - Openings, closings, expansions, and contractions, relocations

What Data are Available and Still Needed?

- Available data:
  - UI wage records
  - Administrative data: workforce system, education system
- Need data:
  - Employer workforce skill needs
  - Worker skills and credentials
- Linked data:
  - UI wage records and administrative data: workforce and education
  - Data Quality Initiative
  - Quarterly Workforce Indicators (LED, LEHD)
- Geo-coded data
  - OnTheMap, for example

What Do We Know?

- Most of what we know comes from cross-sectional (snapshot) data
    - Important information
    - Need to follow workers and employers through their transitions to answer the basic questions of where workers go after displacement and what
- Increasingly, flow data are becoming more widely available
- For many questions, we need to have access to the flows and not turn them into snapshots

Decline in auto employment (and production) started at least a decade ago for both the U.S. and Michigan
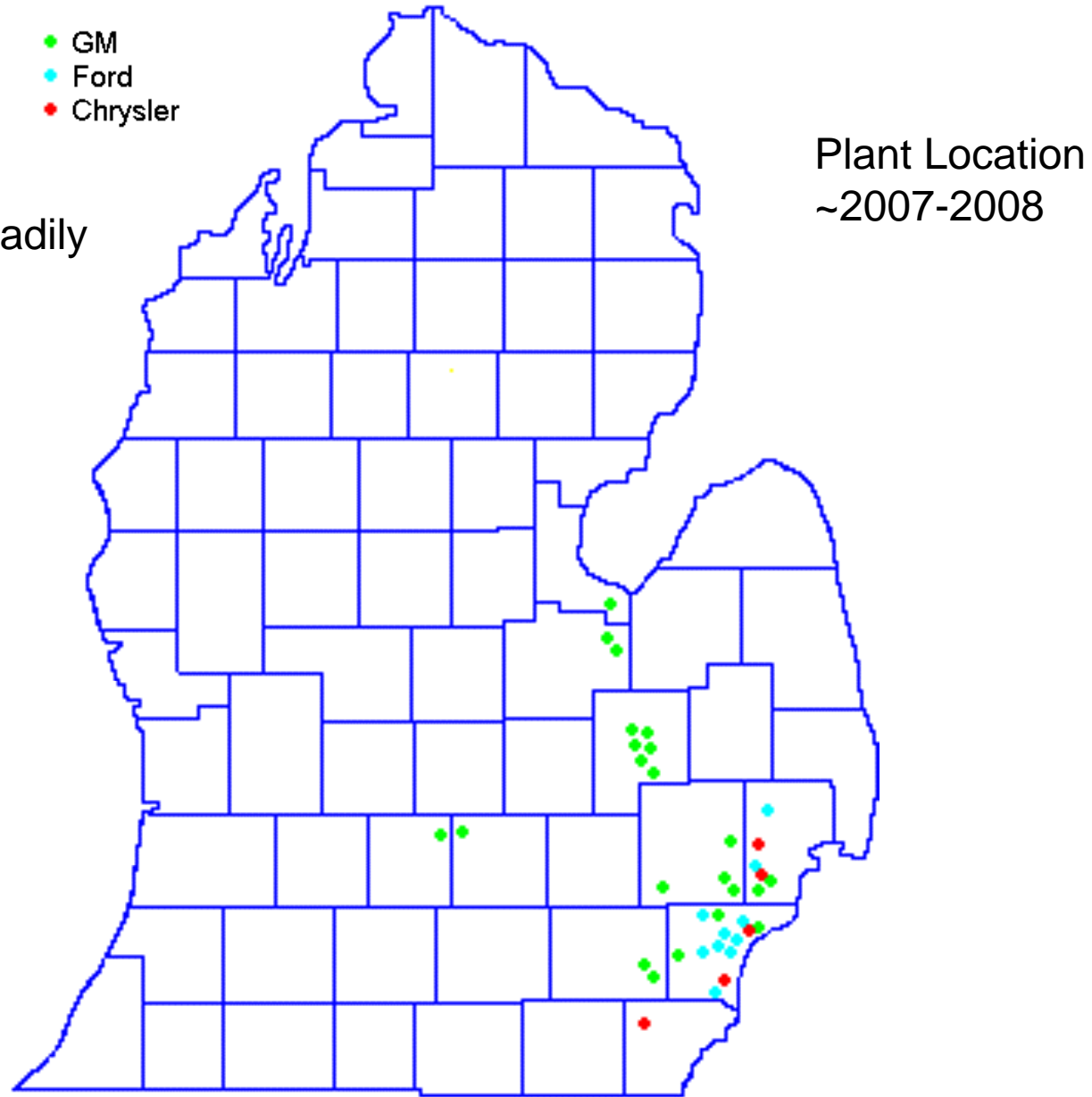
Index of Auto Manufacturing & Production
Index 100 = June 2000
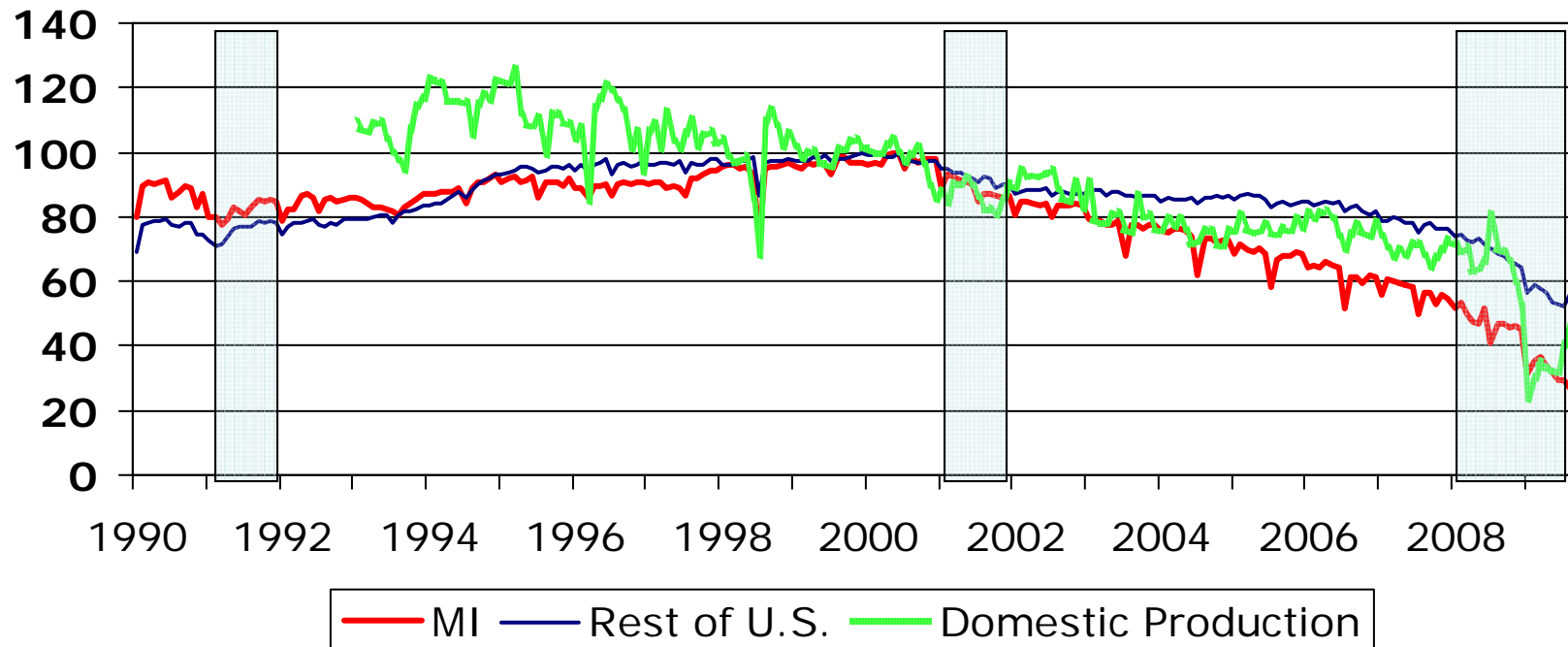
Source: Based on BLS CES data; BEA motor vehicles data. Note: Shaded areas represent approximate duration of recessions.

Where have all the auto jobs gone?

Could use ES202 Data (QCEW) but not readily available--in this case used data provided by the three auto companies
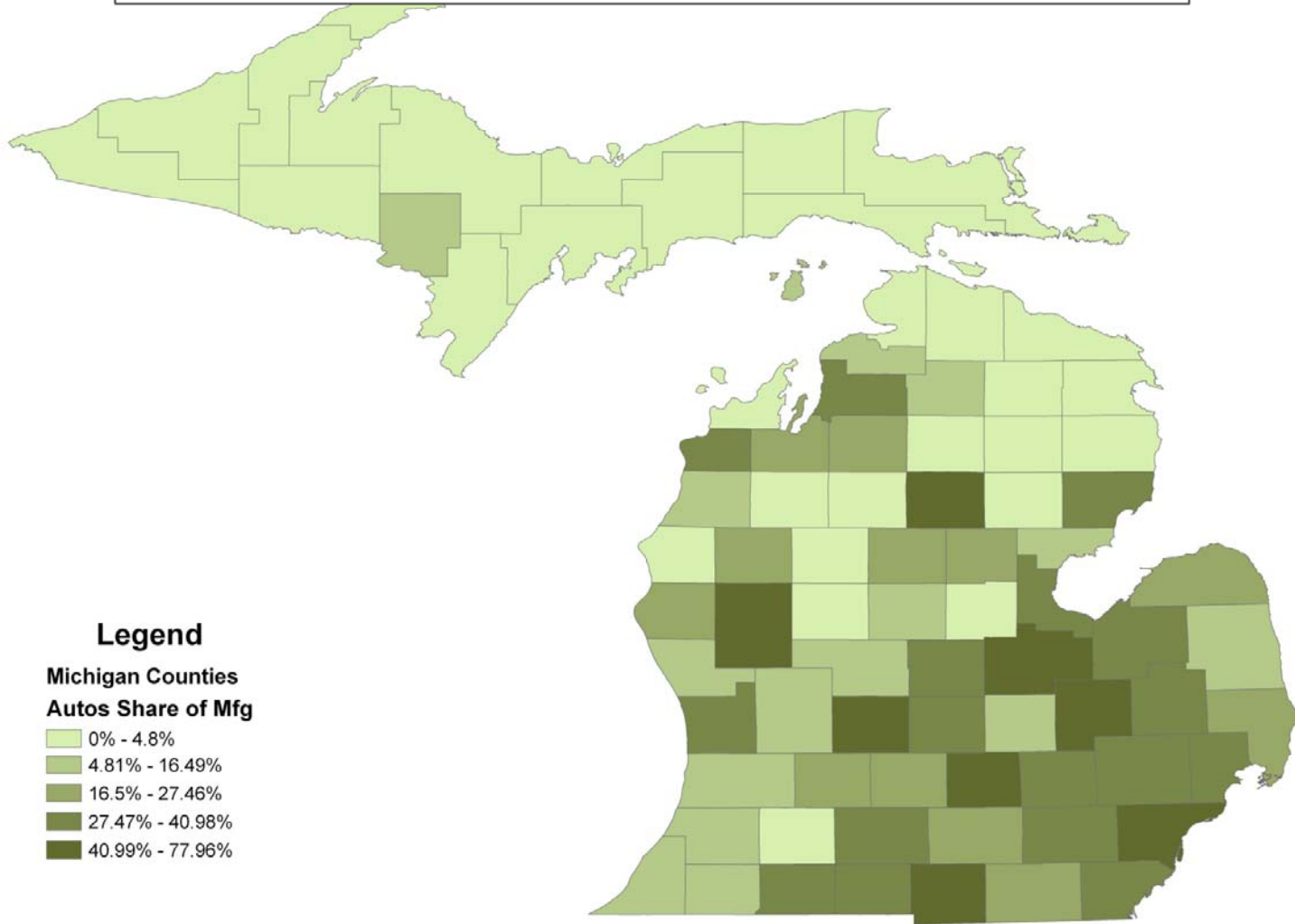
GM
Ford
Chrysler

Plant Location ~2007-2008

Where have all the auto jobs gone?

Plant Location ~2007-2008
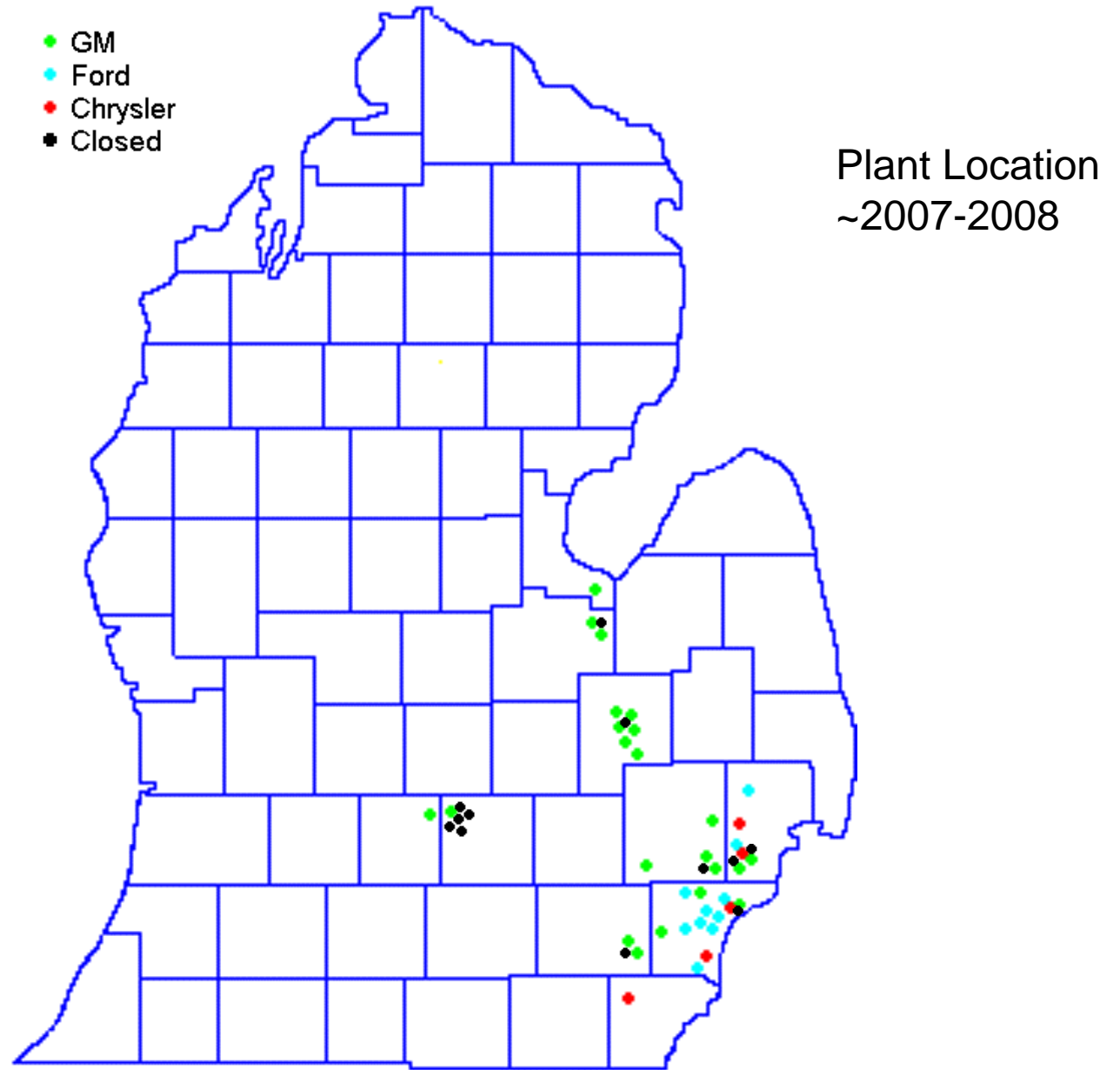
Where have all the auto jobs gone?

Michigan's Automotive Sector

Where have all the auto jobs gone?

Source: Whole Data
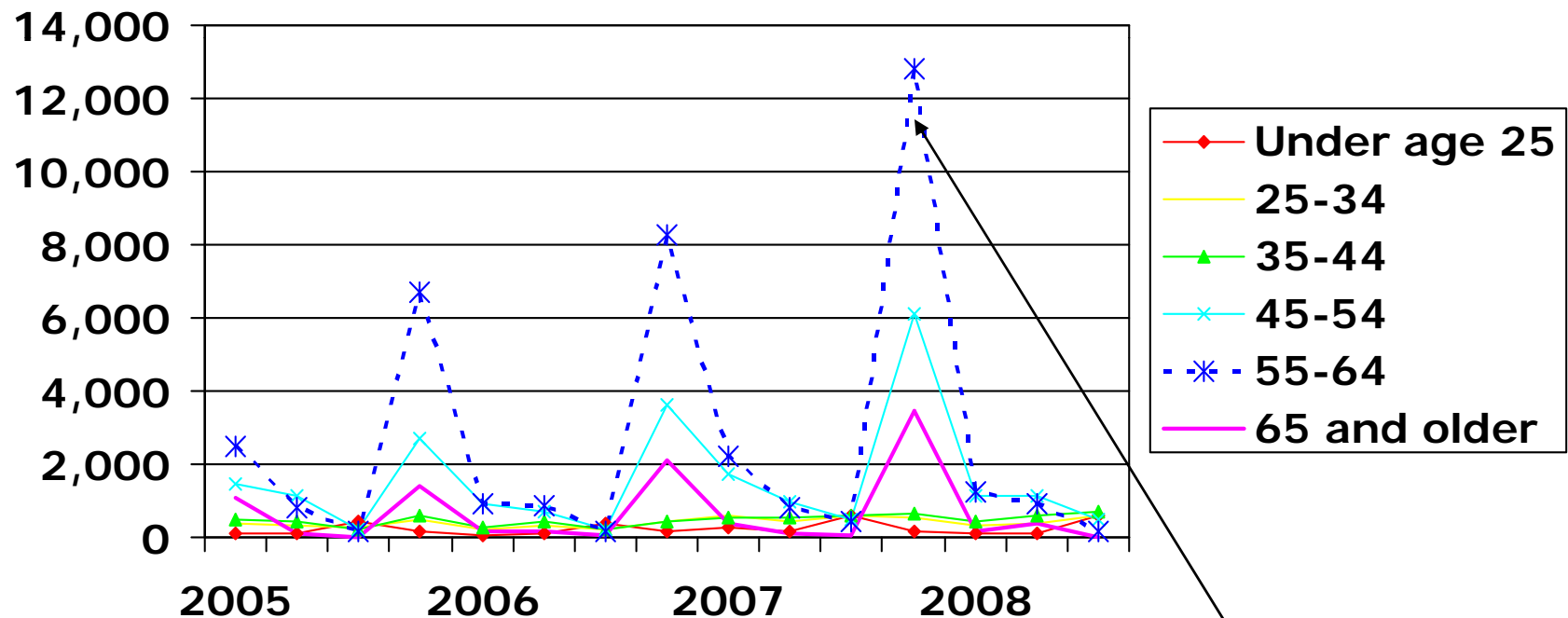
Michigan Employment Dynamics

Source: QWI

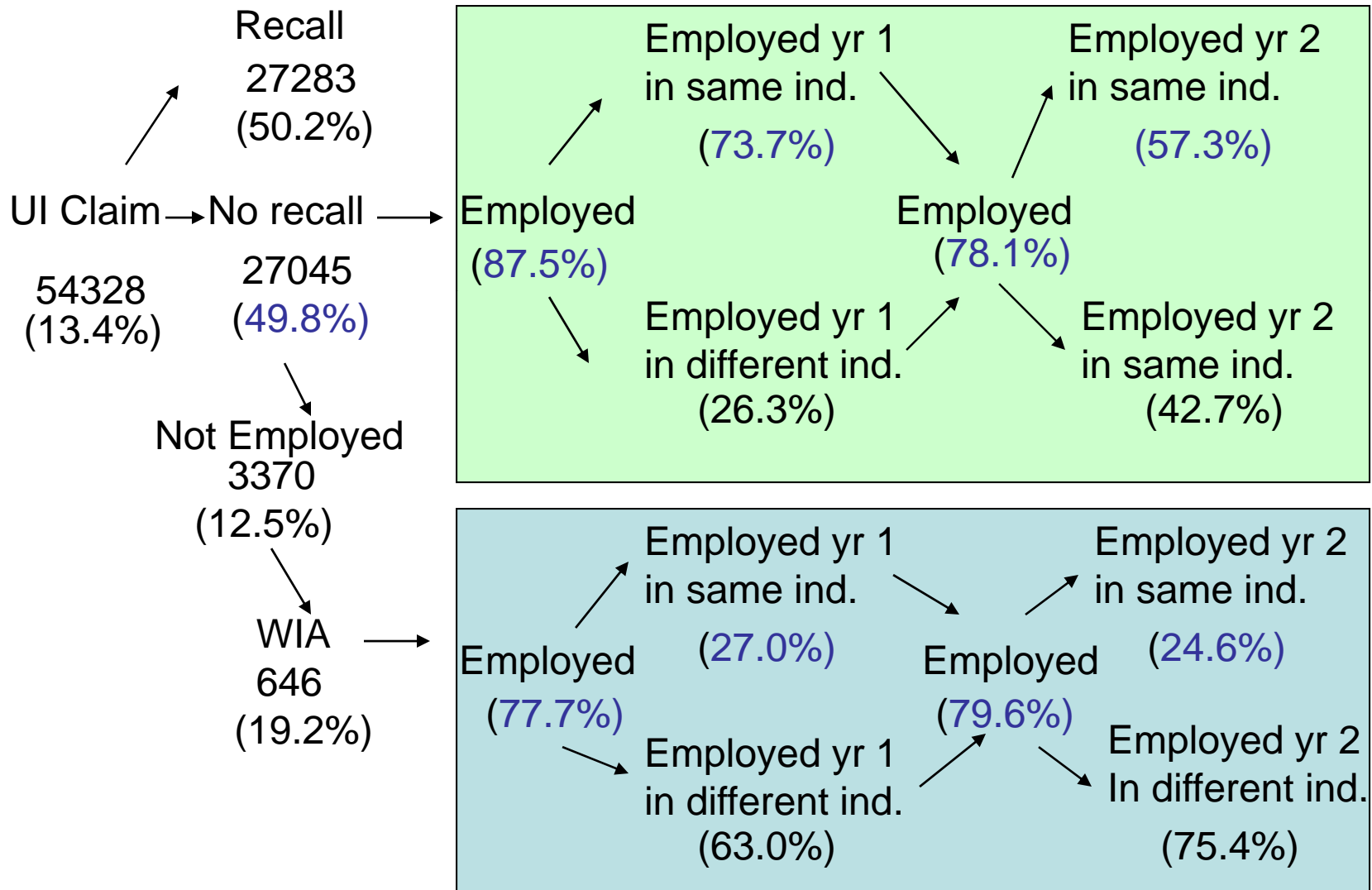**Where have all the auto jobs gone?**

Where have all the Auto Workers Gone?

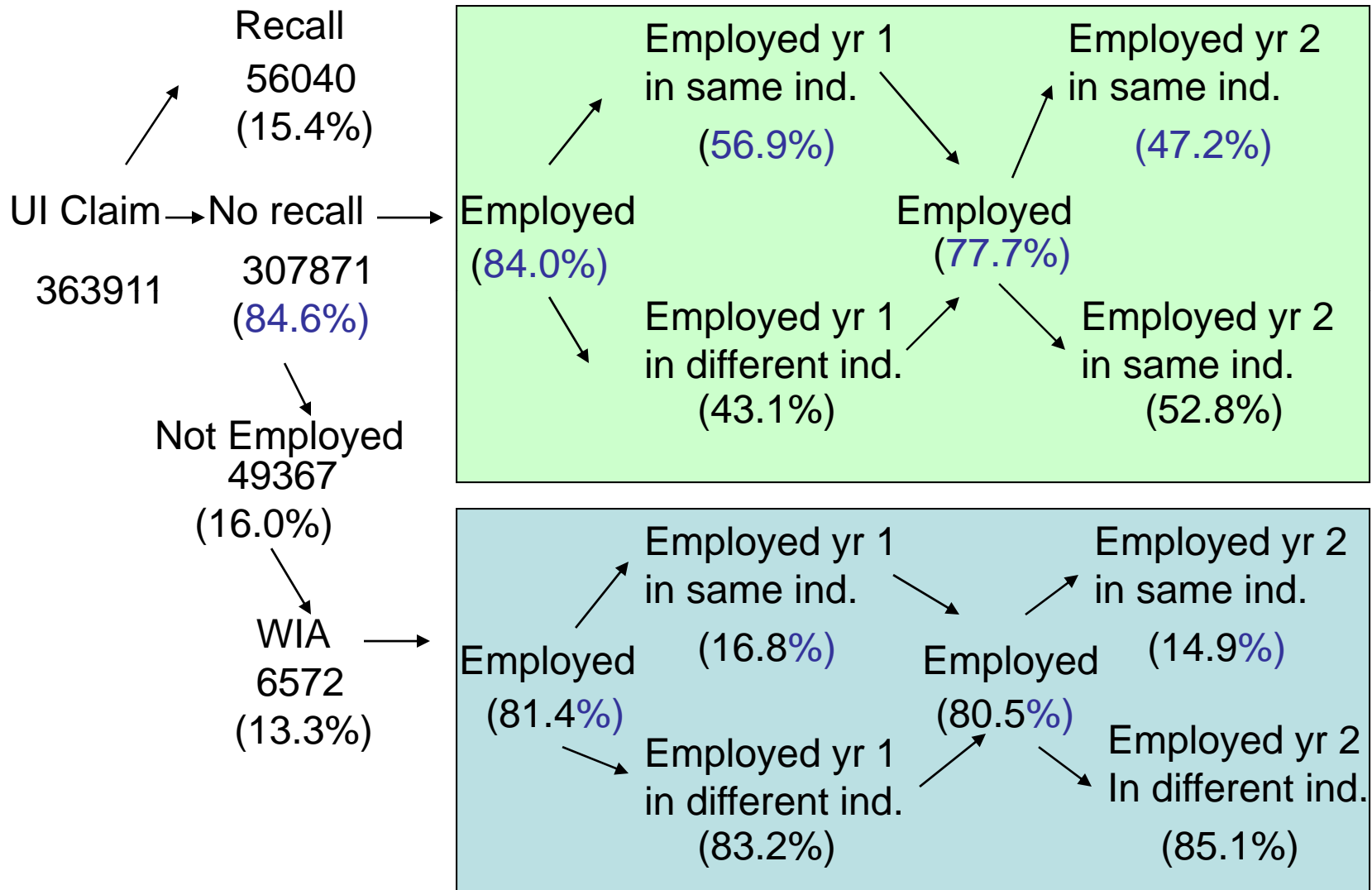**Michigan Motor Vehicle Manufacturing Separations by Quarter**

By far, the most separations have occurred among workers age 55 to 64. These individuals are near retirement and may not try to re-enter the workforce.

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Source: MDLEG, local employment dynamics QWI data.

Auto Worker Transition from Filing UI Claim to Re-employment, 2006

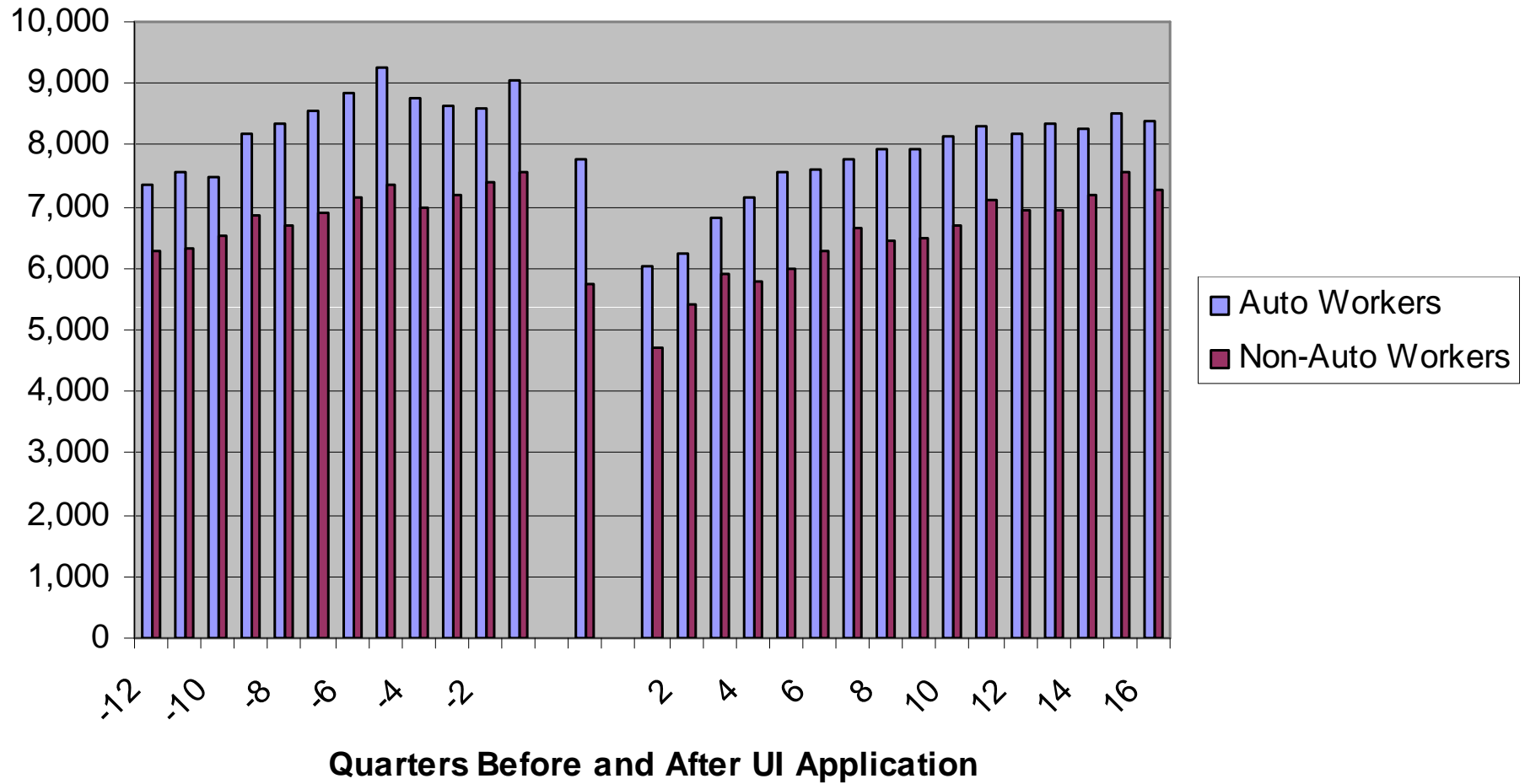Where have all the auto workers gone?

# Non-Auto Worker Transition from Filing UI Claim to Re-employment, 2006

Recall
56040
(15.4%)

UI Claim → No recall →
363911
307871
(84.6%)

Not Employed
49367
(16.0%)

WIA
6572
(13.3%)

Employed
(84.0%)

Employed yr 1
in same ind.
(56.9%)

Employed
(77.7%)

Employed yr 2
in same ind.
(47.2%)

Employed yr 1
in different ind.
(43.1%)

Employed yr 2
in same ind.
(52.8%)

Employed
(81.4%)

Employed yr 1
in same ind.
(16.8%)

Employed
(80.5%)

Employed yr 2
in same ind.
(14.9%)

Employed yr 1
in different ind.
(83.2%)

Employed yr 2
In different ind.
(85.1%)

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Where have all the auto workers gone?

Quarterly Earnings of UI Applicants Not Exempt from Job Search

Where have all the auto workers gone?

Earnings of Incumbent Workers and New Hires in Michigan's Auto Industry
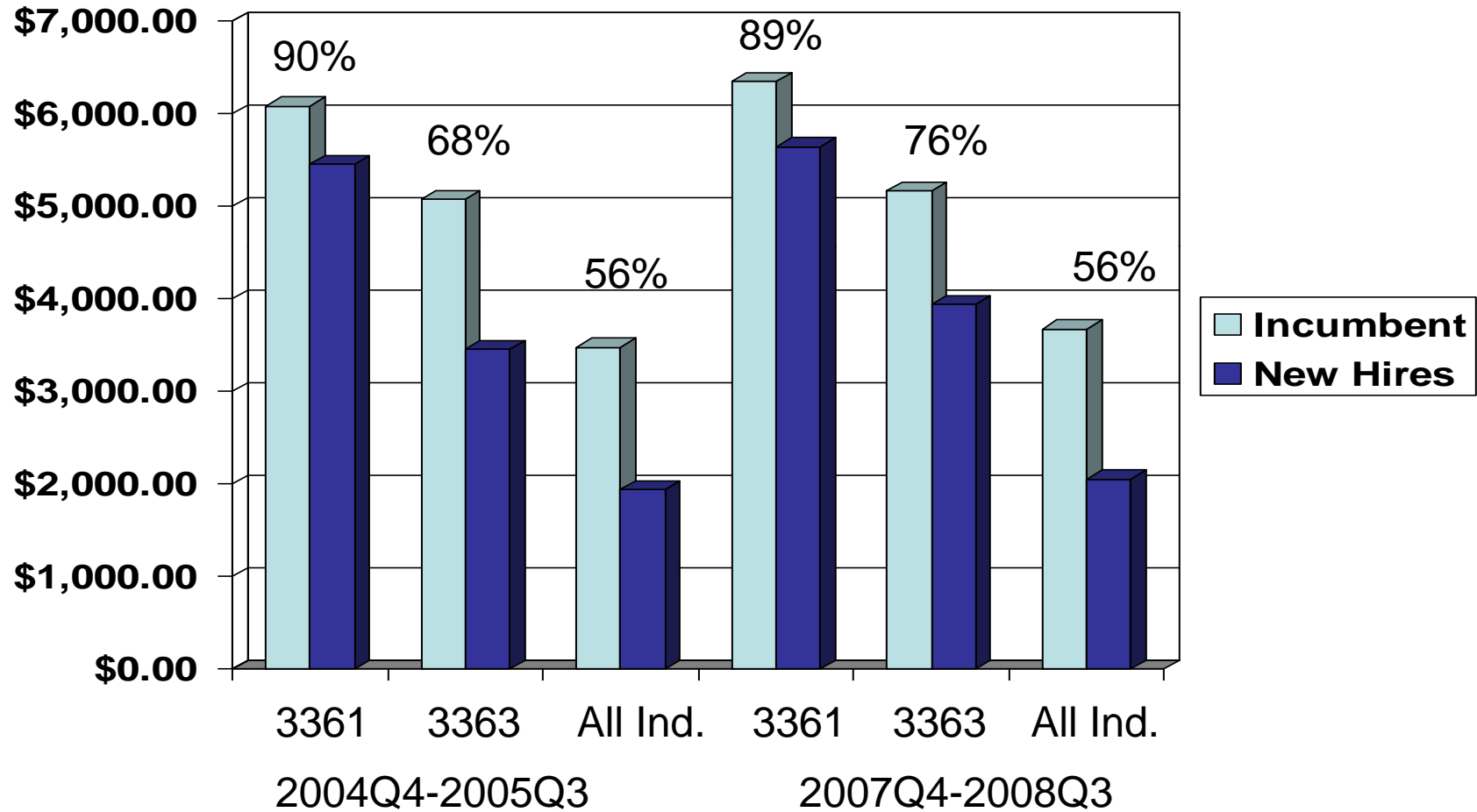
Where have all the auto workers gone?

Summary

- The restructuring of the auto industry, particularly in the traditional manufacturing regions, has caused significant worker displacement and community upheaval

- Proper responses require *informed* decision-making

- Requires answers to the questions posed here and to more in-depth questions specific to each region

- Great strides have been made in providing useful data to states and local areas

- We have access to better data (e.g., flows) and more analytical capabilities than ever before

- But I believe we are only scratching the surface in how these data can be used to tackle such problems

Summary

- Besides making UI, education, business, and administrative data more available for analysis, we also need to think about how we can put this information at the finger tips of stakeholders (front-line staff) to make more informed decisions on a more real-time basis

- We also need to figure out how to canvas the needs of businesses more effectively and better assess and map the capital assets of a region

- The current economic crisis provides an opportunity to step up and provide the information that will provide a more effective, transparent, and effective delivery of services

- And create a culture of evidence-based decision making