

Rosemont Cooperating Agency Meeting- Special Topic: Socioeconomics

Meeting Notes for June 30, 2010

By Sarah Davis

Thomas Michael Power, PhD. was invited by and introduced by Jim Pepper of the Mountain Empire Action Alliance. The Alliance has contracted Dr. Power, former economics professor and department chair from University of Montana, to look at some of the natural resource/socioeconomic considerations of the Rosemont mining proposal. He was invited because of his knowledge of natural resource economics. He is author of Lost Landscapes and Failed Economies: The Search for a Value of Place, a book with information useful to analysis of this project proposal and the disclosure required in a DEIS.

The title of his presentation was “Thinking About the Local Economic Impact of a Large New Mine”. Some points he made:

- Environmental impacts are economic impacts.
- In Arizona “cattle, copper, and cotton” are relevant to a view of economics that stresses exports, which comes from the state’s early history. This view looks at which companies bring people to the state – based on labor demand.
- The Tucson Economic Blueprint shows that metal mining is not a significant part of the Tucson economy, only \$100 million of \$34 billion in 2008.
- The Arizona economy is now more sophisticated.
- Another economic view assumes that people care where they live
- This view considers amenity values rather than the value of exports; puts value on a sustainable visitor economy. In the 1950’s qualities became associated with the amenities of an area
- From 1981 through 2006, 370,000 jobs were added in the area, and were not cattle, copper, and cotton
- The numbers show that a copper mine cannot solve the “Great Recession”
- This copper mine would change the area where it is proposed from an amenity area to a purely industrial site
- Mining towns are not prosperous and the employment is very unstable (see his presentation graphics for the graph re the variability in mining employment). Steady employment cannot be projected throughout the 20 to 30 year mine life.
- From 1971 through 2007 the number of workers in mining went from 28,000 to 11,000, due to efficiencies in the industry.
- The 406 mining jobs at the Rosemont proposed mine do not significantly effect the economy of the area.

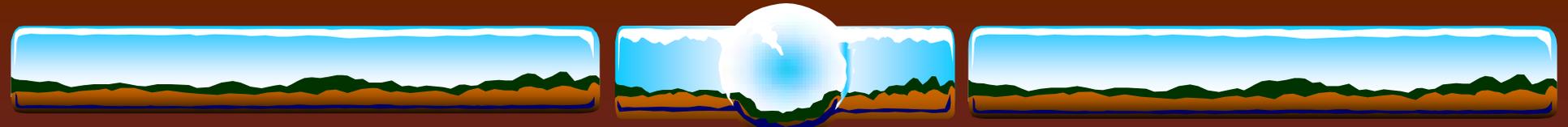
He discussed the benefits verses the costs of the proposed mine, including:

- There are public costs of the mine – federal land, water pollution, etc. These “public goods” are not traded in the market. See TREO report.
- Many towns have no future after a mine leaves

**Rosemont Copper Project
Cooperating Agency Special Topic Meeting
Amenity Economics
June 30, 2010**

Transcribed Attendance Record

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A decorative header at the top of the slide. It features a central white globe with a blue and green landscape below it. This globe is flanked by two identical rectangular panels, each containing a blue sky, green hills, and brown ground. The entire header is set against a dark red background.

Thinking about the Local Economic Impact of a Large New Mine

Thomas Michael Power

Research Professor & Professor Emeritus

Economics Department, University of Montana

Power Consulting

Missoula, Montana

Tucson's Actual Economic Base



Tucson Economic Blueprint Strategic Analysis Report

Section 1: Highlights

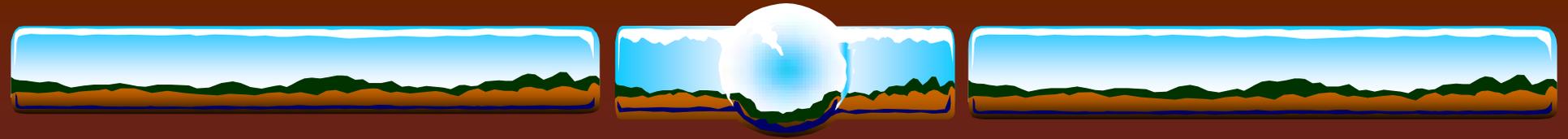
December 27, 2006



Prepared for TREO

By the KMK Consulting Team

KMK Consulting Company, Donald T. Iannone & Associates, IO.
INC, KPMG, Moody's Economy.com and Ady International
Company



Tucson's Highest Rankings as Economic Development Strengths

4. Cultural Diversity in the region.
6. Current image as a place for leisure, recreation, and entertainment.
7. Recreational & entertainment resources within the region.
8. Tucson region's current image as a place to live.
10. Art and cultural venues in the region.

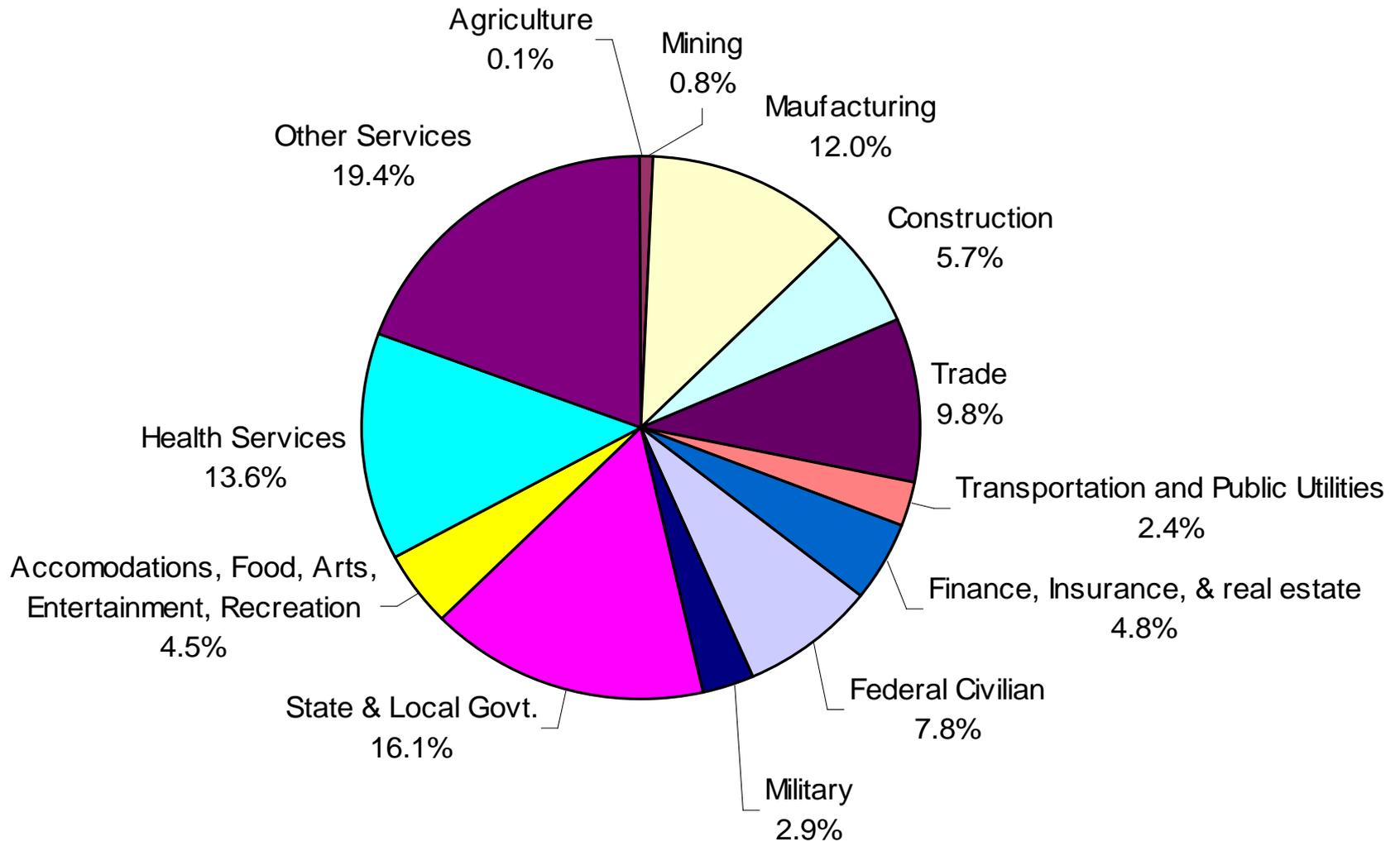


The Focus on Local Amenities

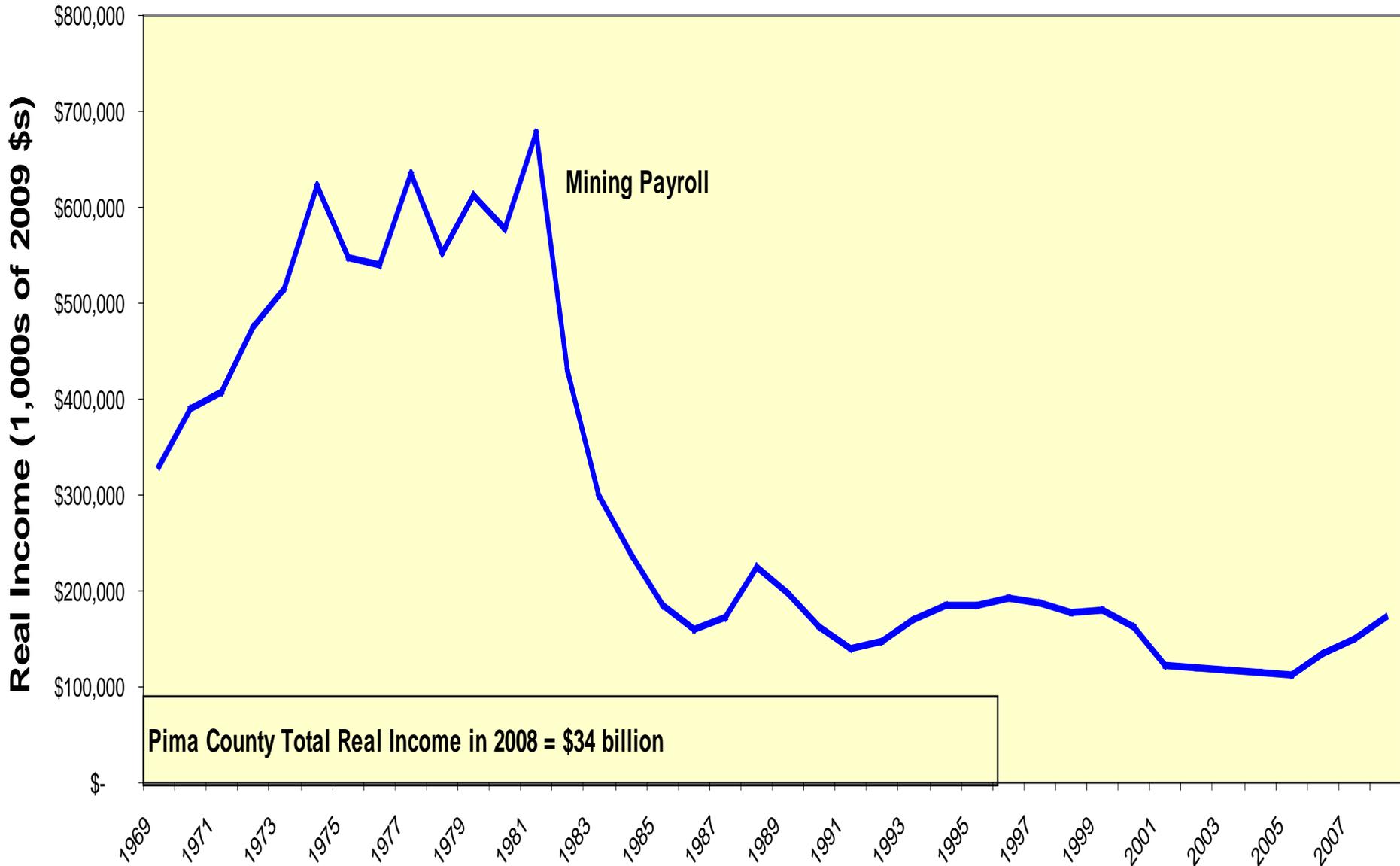
- ❖ Public educational institutions
- ❖ Cultural attractions
- ❖ Natural Landscapes and Recreation Opportunities
- ❖ Quality of Life: Lower key lifestyle
- ❖ Sunshine
- ❖ Urban amenities and access to even larger urban areas
- ❖ Close Proximity to Mexico

What Is Not Listed: Metal Mining

Sources of Real Earnings: Tucson Area (Pima County) 2008



Real Earnings In Mining : Pima County

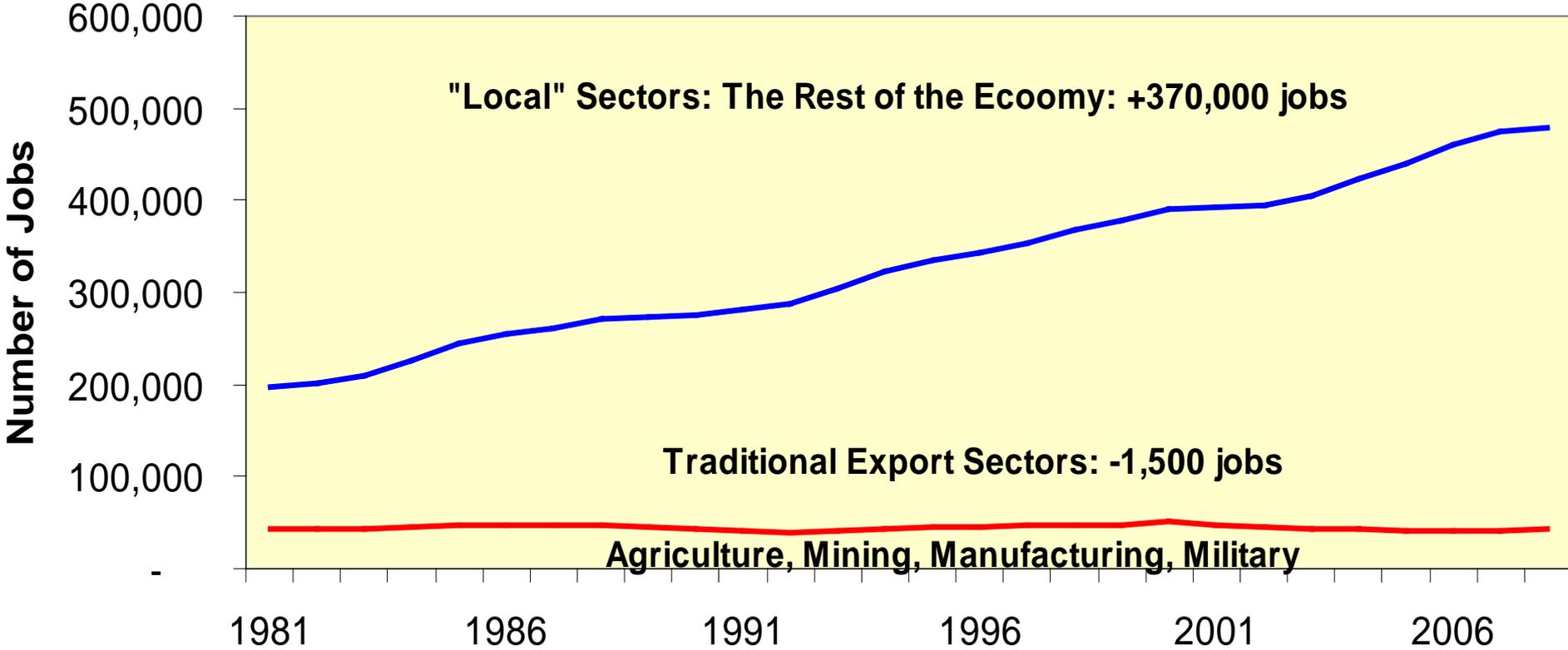




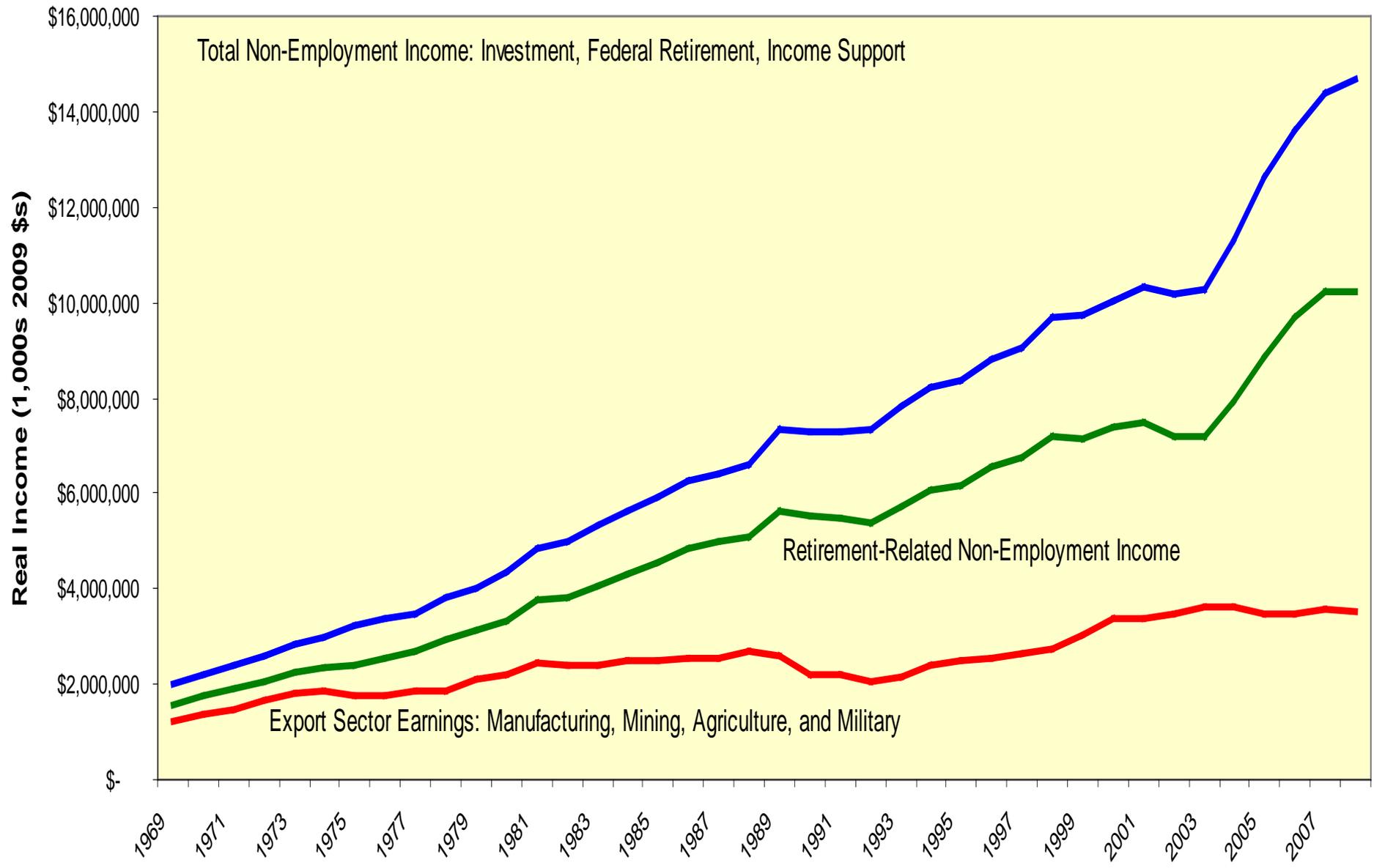
Why the Focus on Amenities Instead of Traditional Exports?

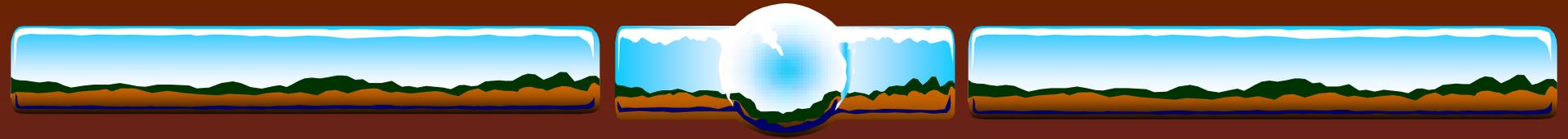
- ❖ People care where they live.
- ❖ Businesses care where people live.
 - ❖ Available high quality workforce
 - ❖ Markets for the goods and services produced
- ❖ Attract high quality workers at lower cost.
- ❖ New residents setting up household stimulate the economy
- ❖ Attracting and Holding Retirees & Retirement income
- ❖ Attracting visitors: building a sustainable visitor economy
- ❖ Traditional exports do not explain local economic vitality.

Pima County Employment: Traditional Export and Local Sectors



Earnings in Export Sectors and Non-Employment Income: Pima County

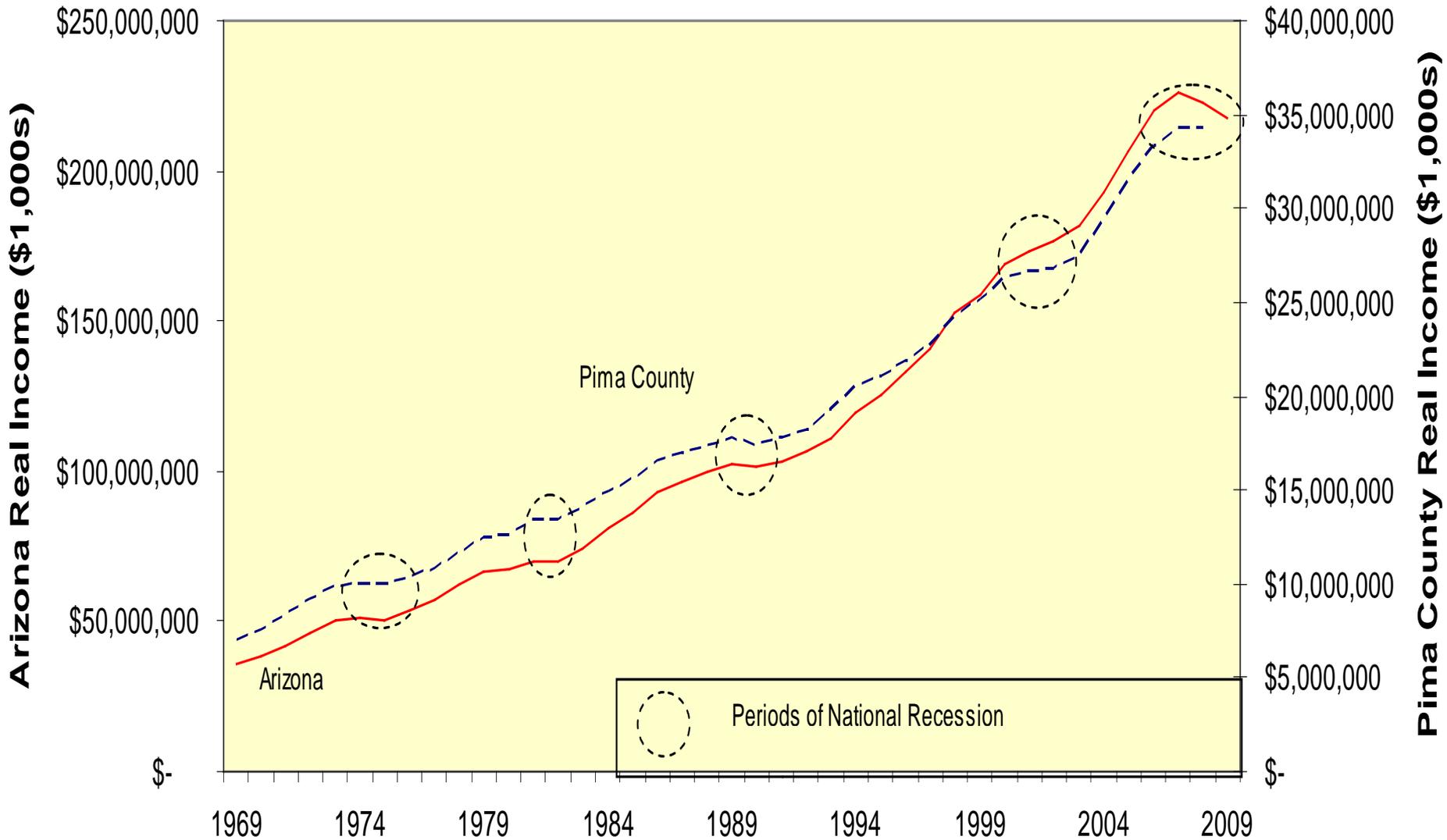




The Great Recession and Local Economic Hardship

- ❖ Rebuilding the Local Economic Base?
- ❖ A Role for Mining?

Arizona and Pima County (Tucson) Total Real Personal Income



A decorative header at the top of the slide features a central white globe with blue and green details, set against a blue sky and green hills. This globe is flanked by two horizontal rectangular panels, each containing a stylized landscape with green hills and a blue sky. The entire header is set against a dark blue background.

How Would the Rosemont Mine Fit into This Amenity-Supported Local Economic Vitality?

north

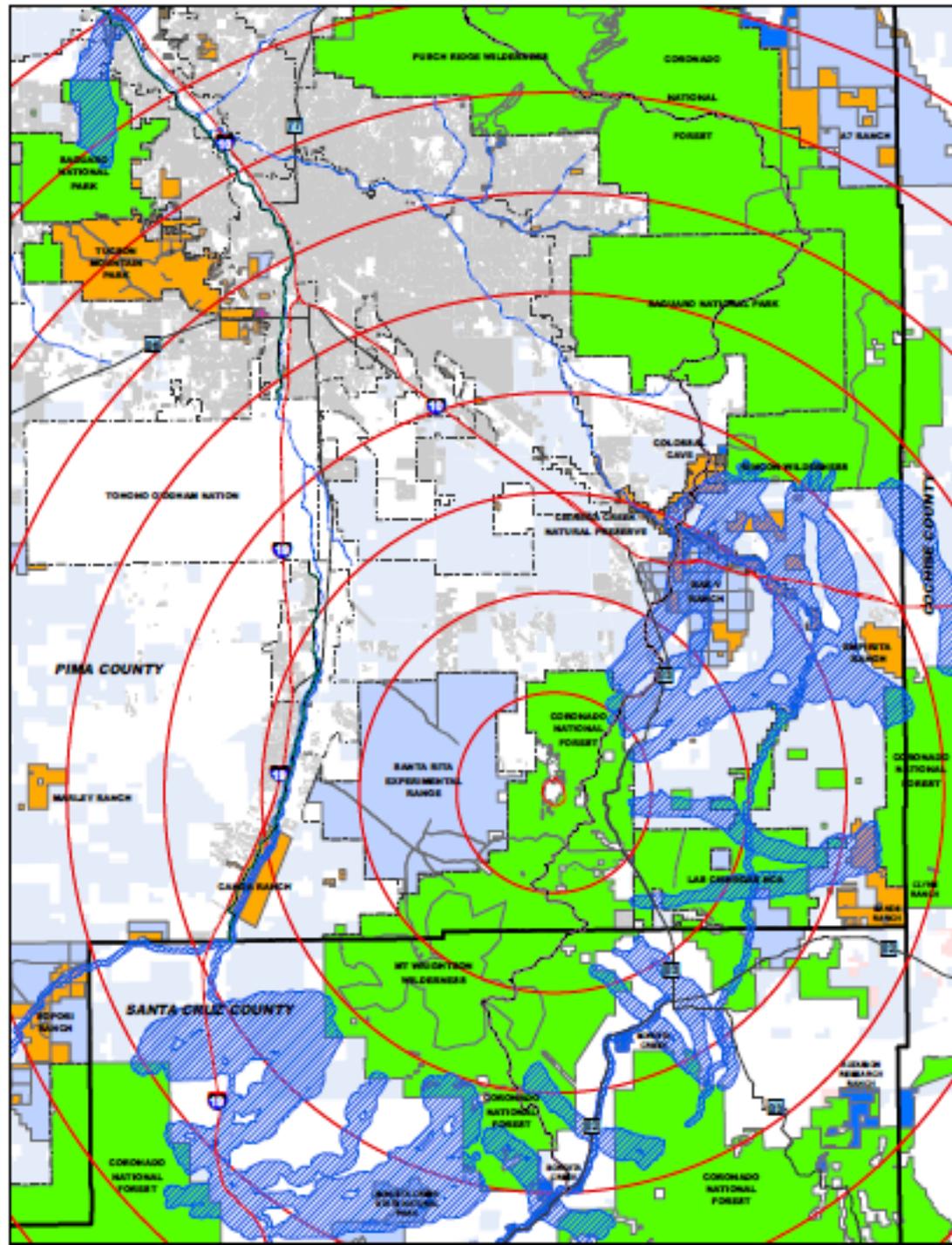
south

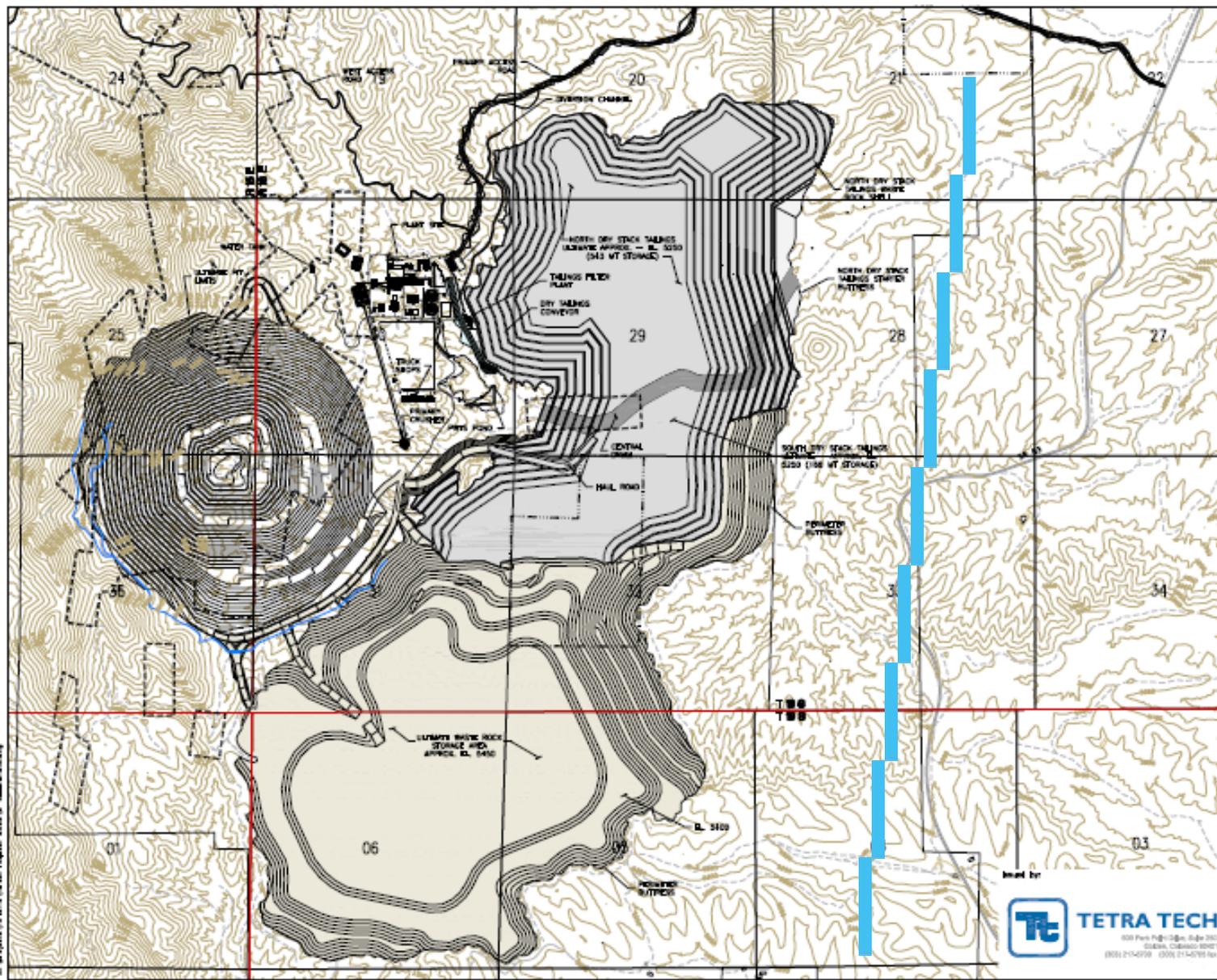


180 degree panorama view of the Rosemont Valley and Mine Site

Protected Lands Surrounding The Rosemont Mine Site and The Greater Tucson Area

- Federally Protected Lands
- State of Arizona Protected L
- Pima County Protected Lan
- City of Tucson Protected La
- Marana Protected Lands
- Privately Protected Lands
- 2008 Urbanized Areas
- State Trust Lands
- BLM Lands
- Wildlife Linkages
- County Line
- 5 Mile Rosemont Buffers
- Rosemont Mine Pit
- Arizona Trail
- De Anza Trail
- Interstate Highways
- State Routes
- Administrative Boundaries





- GENERAL LEGEND/SYMBOLS:**
- EXISTING CONTOUR
 - EXISTING UNPAVED ROAD
 - EXISTING PAVED ROAD
 - PROPOSED ROAD
 - INDENTED CLIAS
 - REMAINING PRIVATE LANDS

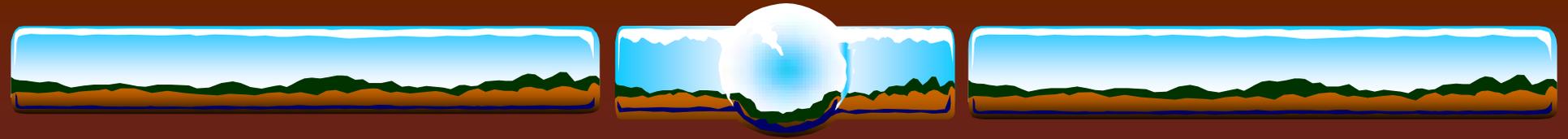
- NOTES:**
1. PLANT, CRUISER, ACCESS ROADS, BY LANTS, AND WASTE ROCK STORAGE AREAS ISOLATED BY STIPES.
 2. CONTOURS SHOWN FOR EXISTING GROUND, DRY STACKS, AND PIT ARE IN 50' INTERVALS. CONTOURS SHOWN FOR THE WASTE ROCK STORAGE AREA ARE IN 25' INTERVALS. CONTOURS SHOWN FOR THE NEW LEACH PAD ARE IN 20' INTERVALS.
 3. FURTHER ROADWAY MAY BE REQUIRED, CLARIFIED, OR HAVE CONDITIONS CHANGED AND PROVIDED ON PLANS 2-7 IN THE MAIN PLAN OF OPERATIONS.
 4. REFER TO FIGURE 2-1 IN THE MAIN PLAN OF OPERATIONS FOR DETAILED SITE ATTACHMENT.



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FACILITY PLAN ULTIMATE CONFIGURATION		
Project: RODMONT	Project No.: 220814	
Location: TRIA COUNTY, ARIZONA	Date: 2/08	

*The reflecting pool is 2028 feet long

A decorative header at the top of the slide features a central white globe with a blue and white pattern, set against a dark blue background. The globe is flanked by two horizontal rectangular panels. Each panel contains a stylized landscape with a blue sky, green hills, and brown ground. The entire header is framed by a thin white border.

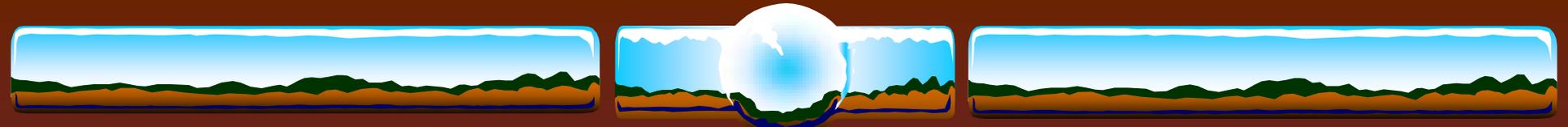
Many New High Paying Jobs?



The Magic of “Multipliers”

- ❖ “Direct” Impacts: Actual Hires Mine Makes
 - ❖ Construction Phase: 196 construction workers*
 - ❖ Production Phase: 406 miners*
- ❖ Rosemont: Total Jobs Including Multipliers
 - ❖ Construction Phase: 3,600 person-years
 - ❖ Production Phase: 2,100 jobs
- ❖ Rosemont: Miners’ Pay: \$50,000/yr
Secondary Jobs: \$60,000/yr

*average jobs over construction and production phases.



High Paid Jobs?

- ❖ Average mining jobs in Pima County pays \$55,000/yr before benefits in 2008.
- ❖ Other pay levels used by Rosemont Study

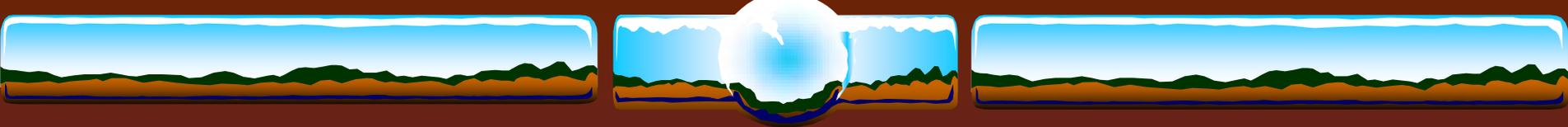
<u>Industry</u>	<u>Assumed Pay</u>	<u>Avg. Tucson Pay</u>
Manufacturing	\$300,000	\$101,638
Retail	\$ 54,000	\$ 34,700
Information	\$150,000	\$ 69,300
Finance, Insur.	\$ 86,000	\$ 43,200

(Pay includes estimated employer-paid benefits, ~23%)



Putting Rosemont's Direct Jobs in Context

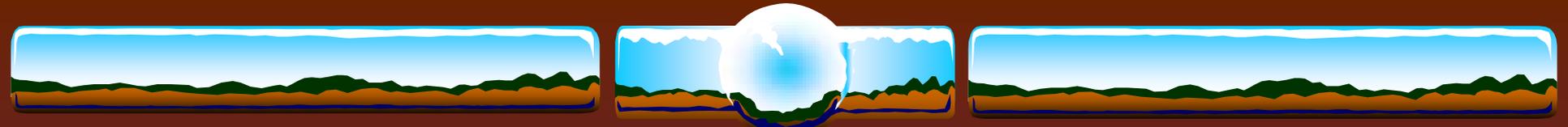
- ❖ 196 construction workers; 406 miners
 - ❖ 520,000 jobs in Pima County
 - ❖ Since 1970 Pima County added 10,000 jobs/yr
 - ❖ UofA BBER projects gain of 7,300 jobs by end of 2011
 - ❖ 200 to 400 jobs is 1 to 2 weeks of normal job growth
 - ❖ 400 jobs is one job in 1,300 jobs. 0.08 percent



The Relative Importance of Rosemont Mine Projected Jobs

Source of Jobs	Direct Jobs	Multiplier Used	"Total" Jobs	Percent of Total Pima County Jobs	
				Direct	Total
Rosemont Mine	406	5.2x	2,106	0.08%	0.40%
Pima County Travel Industry Jobs	22,770	1.5X	34,838	4.38%	6.69%
Total Pima County Jobs (2008)	520,444	1.0x	520,444	100.0%	100.0%

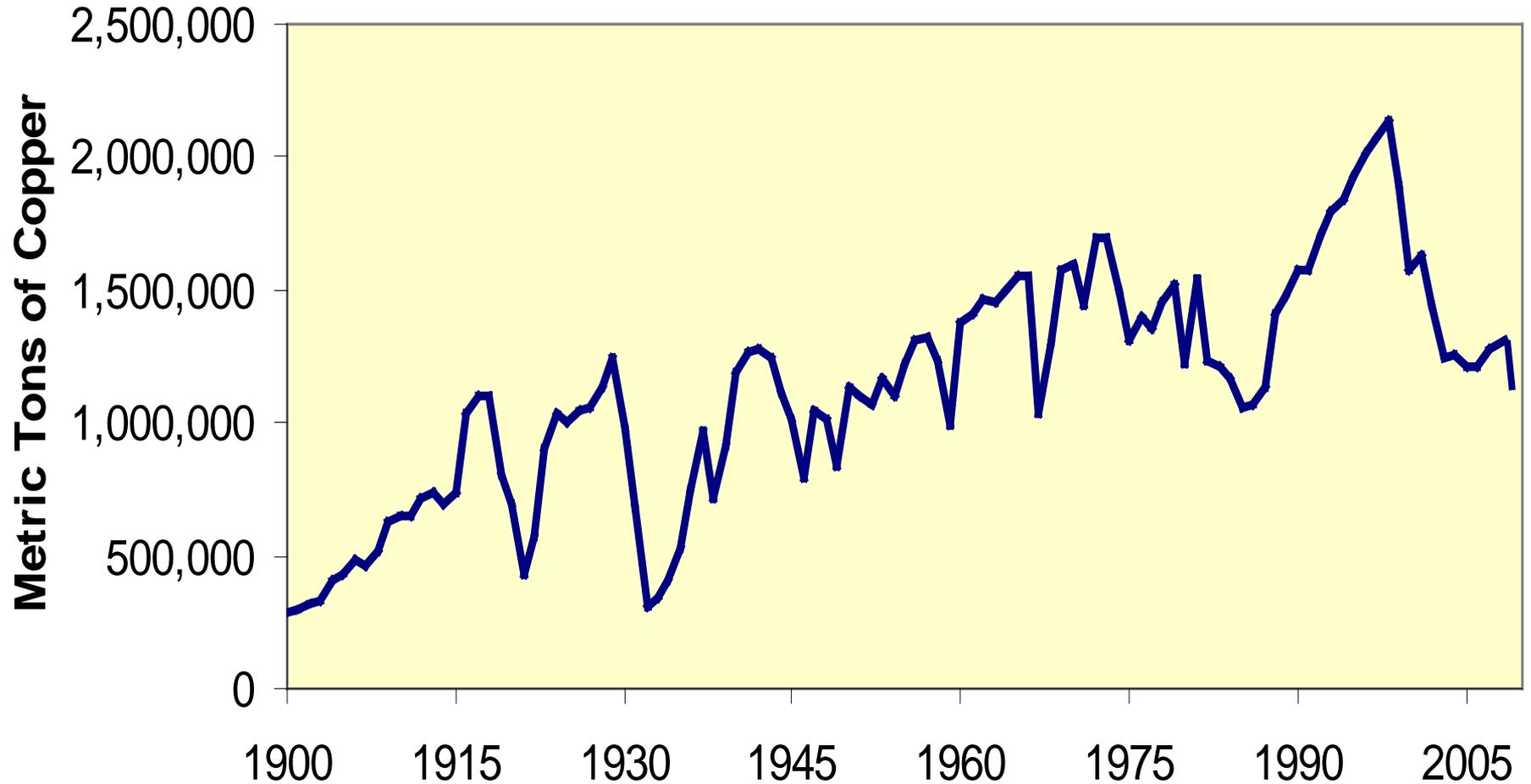
Relatively modest damage to the attractiveness of the region to new businesses, residents, retirees, or visitors could easily cancel out the “benefits” of the Rosemont mine.



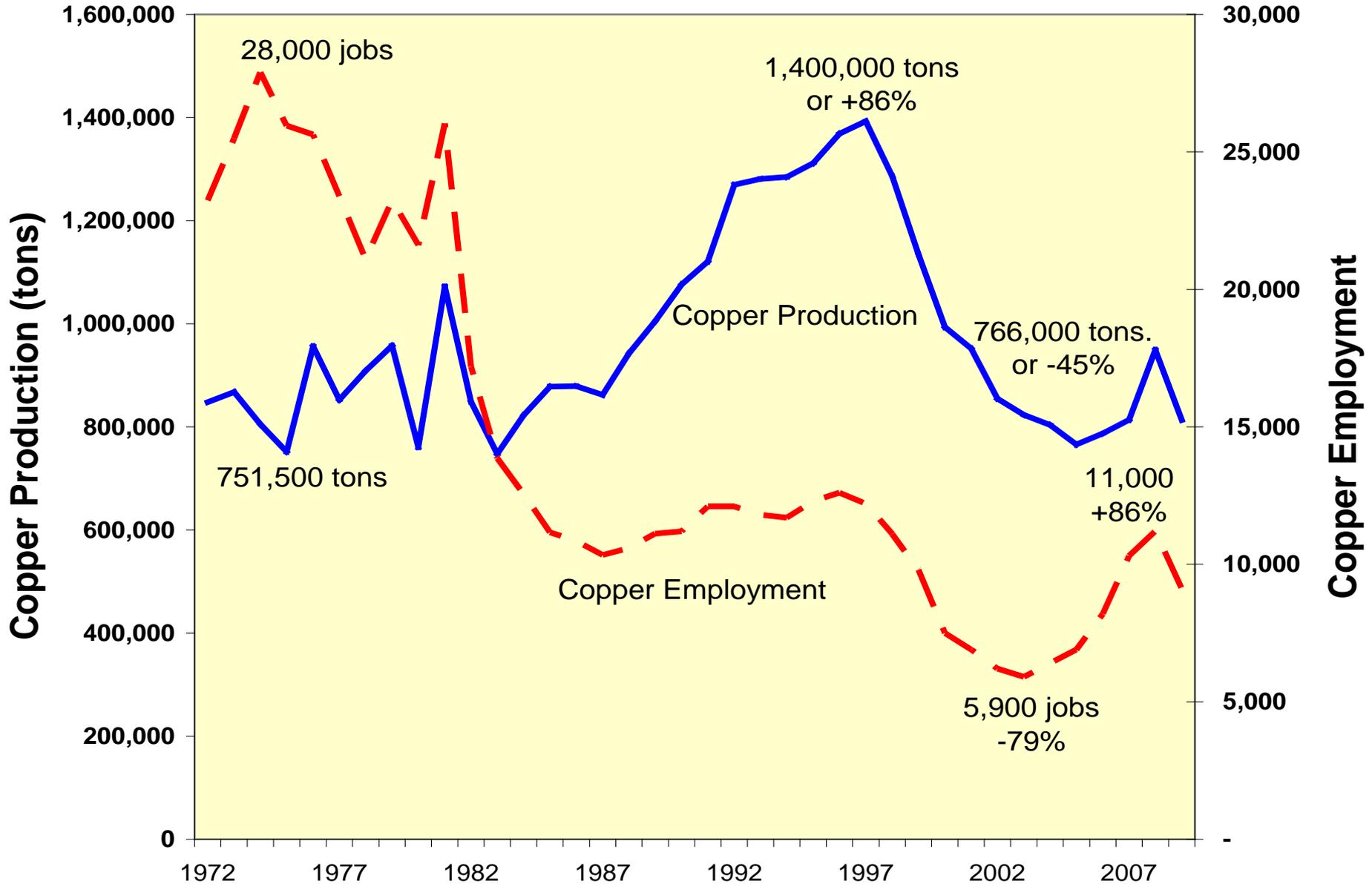
Instability in Mining Jobs

- ❖ Cycles of high prices stimulating production followed by over-supply, low prices and mine shut down.
- ❖ Labor-saving technological change allows production to rise while employment falls. Steady reduction in the mining work force required.

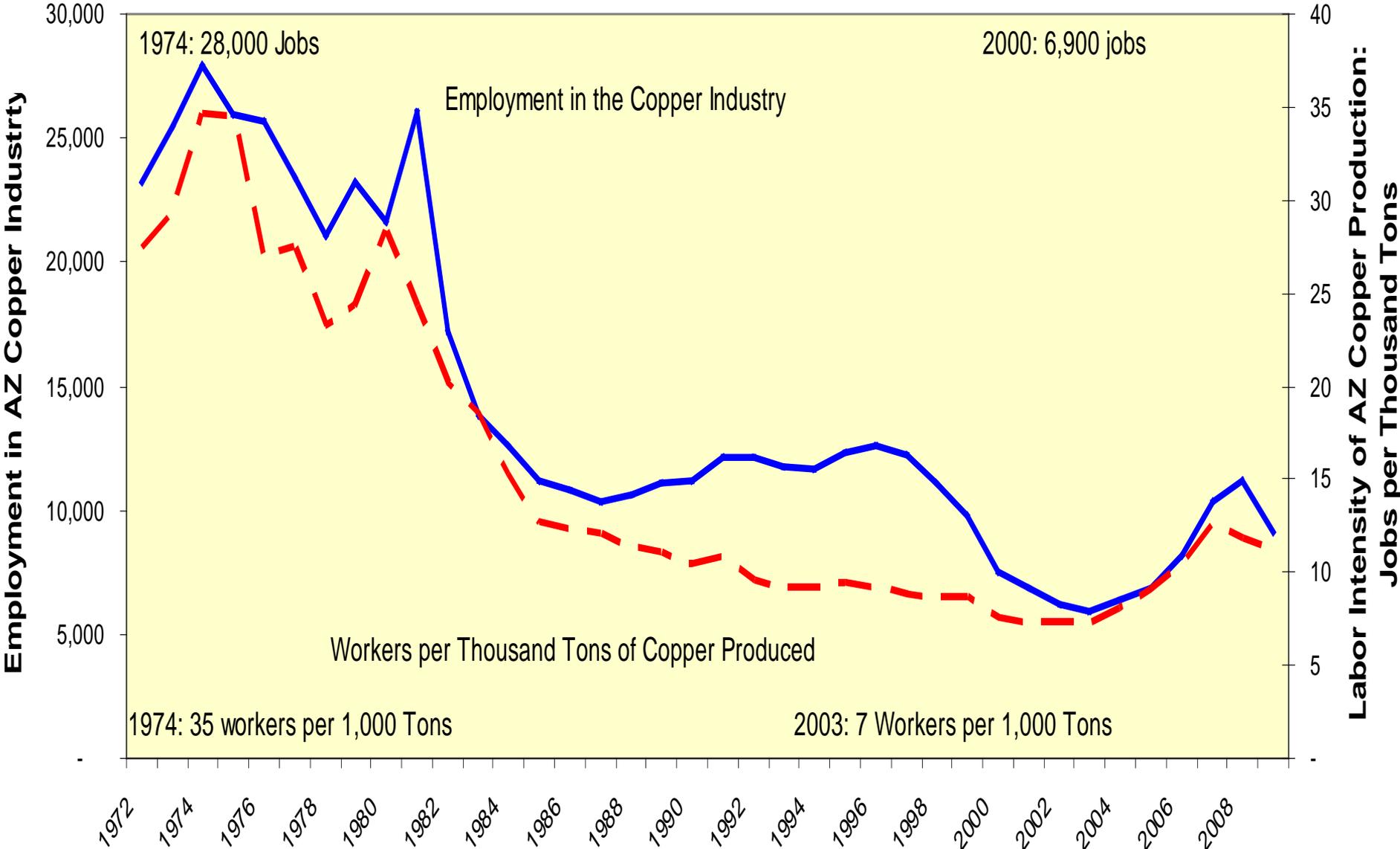
U.S. Primary Copper Production: 1900-2009



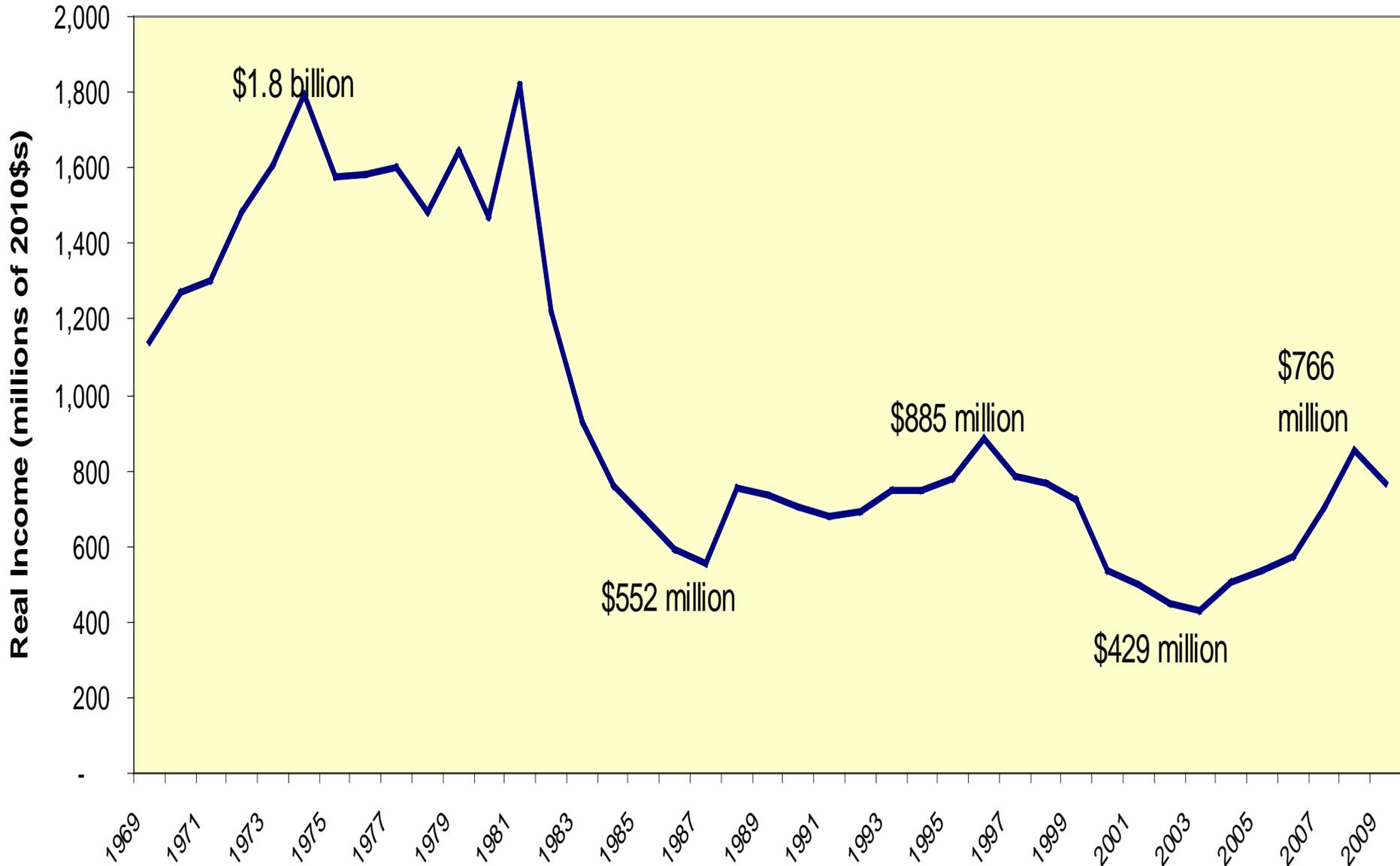
Arizona Copper Production and Employment



Declining Labor Intensity and Employment In Arizona Copper Industry



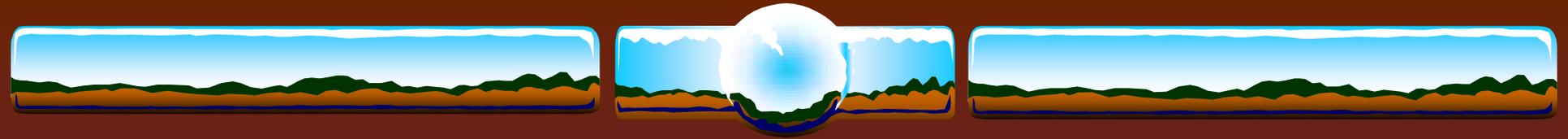
Real Wages and Salaries in the Arizona Metal Mining Industry





All Benefits, No Costs?

- ❖ No serious environmental damage, unlike any copper mine that went before it.
- ❖ Operation of the mine does not displace workers in any other businesses.
- ❖ Steady employment; no interruptions in pay, unlike any previous 20-30 yr. period.



Thank You!

Questions?

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