

EXPLORING UNEMPLOYMENT RATES BY GENDER

PURPOSE: To compare male and female unemployment rates across the counties and American Indian reservations of Arizona, and to hypothesize why differences exist.

INTENDED AUDIENCE: Undergraduate students and advanced secondary students; interested members of the general public.

LEARNING OBJECTIVES:

1. Students will be able to use the Arizona Electronic Atlas to make maps.
2. Students will be able to use the Show Data tool to obtain selected information.
3. Students will be able to discuss unemployment trends by county, gender and American Indian Reservation.
4. Students will be able to discuss unemployment trends in the Tucson metropolitan area.
5. Students will be able to hypothesize possible causes for the trends discovered.

OUTLINE AND SYNOPSIS:

Each part of the module can stand alone, or all can be completed.

PART I: A comparison of male and female unemployment rates in various Arizona counties. Do they differ? Do counties with high male unemployment necessarily experience high female unemployment (and vice versa)?

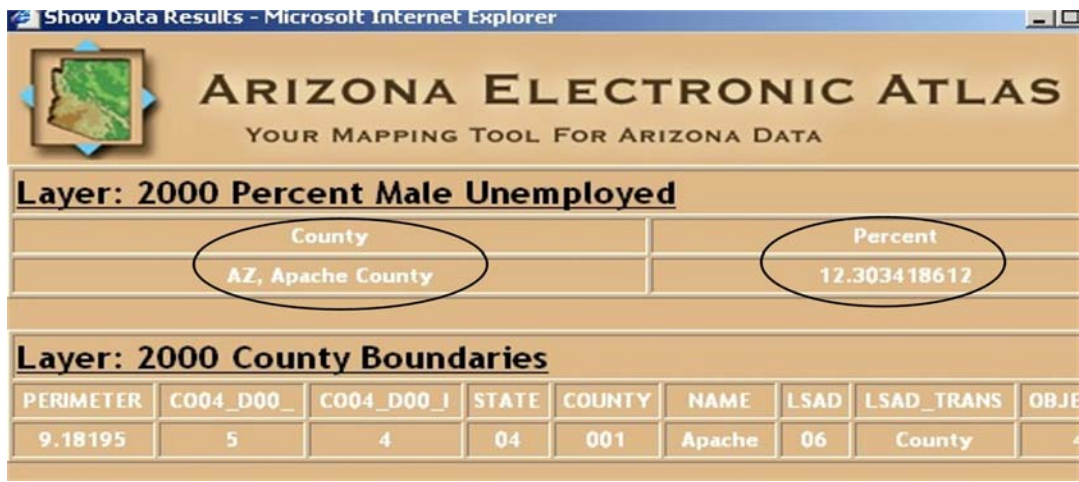
PART II: A comparison of male and female unemployment rates in various American Indian Reservations in Arizona. Do American Indian Reservations with high male unemployment necessarily experience high female unemployment (and vice versa)?

PART III: A comparison of male and female unemployment rates in the Tucson metropolitan area. Are the areas of high male unemployment also those of high female unemployment?

PART I

1. Open the Arizona Electronic Atlas <<http://atlas.library.arizona.edu>>
2. Choose "Make a Map" at the top left of the screen.
3. Choose Business and Economics (scroll down to find)
4. Allow the map to load, then click "Refresh" (this will enlarge the map)
5. Click "Overview Off" to remove the inset map (it will get in the way as you progress).
6. Locate the legend on the right hand side of the map. Scroll down to see the different choices available to map.
7. Click on the "People by County" folder found in the legend.
8. Click "2000 Percent Male Unemployed"
9. Click Redraw Map.

10. The map should now change. Use the legend to interpret the map, noticing that counties shown in orange have the highest male unemployment.
11. Since the legend only provides a range not an exact unemployment percentage, we will now use the "Show Data" tool to get exact figures.
12. Click on the "Show Data" button on the top right of the screen (note: nothing will happen-go straight to the next step).
13. Click on Apache County within the map.
14. This will bring up a screen that looks like this:



15. The screen shows that the male unemployment rate in Apache County is 12%.
16. Repeat this process for all Arizona counties and record the data in the table below. Leave the female unemployment rate column blank for now, and we will return to it.

COUNTY	MALE UNEMPLOYMENT RATE	FEMALE UNEMPLOYMENT RATE
APACHE		
COCHISE		
GREENLEE		
GRAHAM		
MOHAVE		
GILA		
PIMA		
MARICOPA		
PINAL		
COCONINO		
LA PAZ		

YUMA		
NAVAJO		
YAVAPAI		
SANTA CRUZ		

17. Now we will create a map that shows female unemployment rates. Unclick "2000 Percent Male Unemployed" and click "2000 Percent Female Unemployed". Then click Redraw Map.

18. Again, note the counties with the highest female unemployment rates, which are shown in orange.

19. To obtain the exact female unemployment rates for each county, repeat steps 12-16 and record the figures in the table above.

20. Looking at the table you completed, what patterns have emerged? Some questions to consider:

- Are the counties with the highest male unemployment also those with the highest female unemployment?
- Are the counties with the lowest male unemployment also those with the lowest female unemployment?
- What is the most obvious trend you see when comparing male to female unemployment within a given county?
- What factors might account for the higher male than female unemployment in virtually every county in Arizona?

FOR FURTHER INVESTIGATION

- Investigate the economic base of the counties which had higher male than female unemployment. One thing to look for might be whether these counties have less industries and/or occupations in which males typically participate.

Apache County: http://www.apachecounty.com/biz_demographics.htm

Navajo County: http://www.co.navajo.az.us/GenInfo_Lab.aspx and http://www.co.navajo.az.us/GenInfo_Ind.aspx

For County Profiles also see

<http://www.workforce.az.gov/cgi/databrowsing/localAreaProQSSelection.asp?menuChoice=localAreaPro> and http://www.azcommerce.com/communities/county_profiles.asp

General Arizona Workforce Trends <http://www.workforce.az.gov/>

Breakdown of employment by industry

<http://www.workforce.az.gov/cgi/databrowsing/industryexplorerselection.asp?menuChoice=industryExplorer>

- Research the different aspects of the economics of gender, such as the wage gap. Use the **Econlit** database available through the University of Arizona's library catalog (SABIO). Use the subject term "economics of gender."
- Investigate why unemployment differs across counties (irrespective of gender) One resource that might be helpful:

Feasel, Edward M.; Rodini, Mark L Understanding unemployment across California Counties. *Economic Inquiry* 40(1):12-30. Available full text from **Econlit**.

- Investigate differences in unemployment rates by ethnicity.

PART II

1. If you did not complete Part 1, carry out steps 1-6 in Part I to begin the map making process. Otherwise return to the map you've already made and click Refresh to reset the map.
2. Find the folder "People by American Indian Area" on the legend. Click on it.
3. Scroll down the list and choose "Male Unemployment by American Indian Area". Click Redraw Map
4. Now you should have a map that shows male unemployment by American Indian Reservation. Use the legend to identify what each color stands for.
5. Since the legend only provides a range, rather than exact unemployment figures, we will use the Show Data tool to obtain these.
6. Click on "Show Data" on the top right hand side of the screen. Then click on an American Indian Reservation of interest (directly on the map).
7. A pop up screen will appear which will give the name of the reservation and the exact unemployment figure for males (as of 2000).
8. Repeat this process to obtain the figures for all reservations of interest (at a minimum, record data for the tribes listed below). Blank spaces are left to add other tribes of interest.

RESERVATION	% MALE UNEMPLOYMENT	% FEMALE UNEMPLOYMENT
HAVASUPAI		
COLORADO RIVER		
SALT RIVER		
KAIBAB		
AK CHIN		
NAVAJO		

9. To obtain female unemployment rates, go back to your map, unclick on "2000 Percent Unemployed Male" and click on "2000 Percent Unemployed Female" (both in the American Indian Areas folder).

10. Click Redraw Map.
11. Repeat the procedure described in steps 4-8, recording your data in the table above.
12. What patterns do you see? Are the reservations which are experiencing high male unemployment also experiencing high female unemployment (and vice versa)?
13. What factors might account for the patterns you see?

FOR FURTHER INVESTIGATION

- In order to understand the unemployment patterns you discovered, research major employers and industries on American Indian Reservations of interest. Economic Profiles for each Reservation from AZ Dept of Commerce: <http://www.azcommerce.com/Communities/indian%20profile.asp>

Havasupai: <http://www.havasupaitribe.com/aboutus.html>

Ak Chin: http://www.itcaonline.com/tribes_akchin.html

Salt River: http://www.itcaonline.com/tribes_saltrv.html and <http://www.saltriver.pima-maricopa.nsn.us/> and <http://www.saltriver.pima-maricopa.nsn.us/enterprises/index.htm>

Navajo: <http://www.navajo.org/>

Kaibab Paiute: <http://www.azcommerce.com/doclib/COMMUNE/kaibab%20paiute.pdf>

PART III:

1. If you have not completed Part I and/or Part II, carry out steps 1-6 in Part I to begin the map making process. Otherwise, return to your map, and click Refresh to reset the map.
2. Scroll down the legend on the side of the map and find the "People by Census Tract" folder. Click on it.
3. Within this folder look for "Male Unemployment by Census Tract" and click on the box in front of it.
4. In the Areas folder, look for "2000 Census Tracts" and click on the box in front of it.
5. Click Redraw Map.
6. Click on the "Zoom In" button at the top left hand side of the screen.
7. Find the Tucson metropolitan area. Click and draw a rectangle around it using the mouse. Let go and this will cause the map to zoom in to this area. It should look like this:



8. Use the legend to identify census tracts with high rates of male unemployment.
9. To obtain exact unemployment rates for census tract of interest, we will use the Show Data tool.
10. Click on the "Show Data" tool on the top right side of the screen.
11. Click on a census tract of interest.
12. A pop up screen will appear which contains both the census tract # and the unemployment rate (shown below):

Show Data Results - Microsoft Internet Explorer

ARIZONA ELECTRONIC ATLAS
YOUR MAPPING TOOL FOR ARIZONA DATA

Layer: 2000 Percent Male Unemployed by Tract

Percent
11.944577162

Layer: 2000 Census Tracts

PERIMETER	TR04_D00_	TR04_D00_I	STATE	COUNTY	TRACT	NAME	LSAD	LSAD_TRANS	OBJECT
0.0682	1030	1029	04	019	0023	023	TR		1029

Layer: 2000 County Boundaries

PERIMETER	CO04_D00_	CO04_D00_I	STATE	COUNTY	NAME	LSAD	LSAD_TRANS	OBJECT
7.4348	14	13	04	019	Pima	06	County	13

13. Record this information in the table below.

CENSUS TRACT #	MALE UNEMPLOYMENT	FEMALE UNEMPLOYMENT

14. Return to the map, unclick "2000 Percent Male Unemployment" (by census tract).
15. Click on "2000 Percent Female Unemployment" (by census tract)
16. Click Redraw Map.
17. Repeat the procedure described above in steps 7-12 to fill out the table for female unemployment rates (using the same census tracts).
18. What patterns do you see when comparing the data in your table? Do the census tract with high male unemployment also have high female unemployment?
19. What factors may account for the patterns you have discovered?

FOR FURTHER INVESTIGATION

- Research the economic base and primary employers in Pima County in order to try to understand the patterns you found in Part III. See <http://www.azcommerce.com/doclib/COMMUNE/Pima%20County.pdf>
- Investigate unemployment rates in the Phoenix metropolitan area using the Arizona Electronic Atlas.