Unemployment Redefined: the Case of San Jose in 2000

In June 2003, _Comparative Policy Review_ published "Unemployment Redefined" [1], in which the author redefined unemployment rate U as U=100%-E, where E is employment rate.

This essay deals with a special case: San Jose's unemployment rate in the early 2000. As the capital of Silicon Valley, the city of San Jose represents the highest hi-tech development in the world, and the early year (April) of 2000 reached the peak of the decade-long "New Economy" prosperity. Fortunately, we also have the rare data to more accurately calculate the unemployment rate of San Jose from the US Census 2000.

According to the US Census Bureau Table DP-3, San Jose [2], the employed population is 436,890 and the official unemployment rate is claimed as 2.9%. On the other hand, the same source also shows "not in labor force" population is 225,511 (33.1%), which indicates the US Census Bureau has artificially excluded 33% unemployed population by the official, mainstream but unscientific unemployment definition [1]. Let's follow the objective U=100%-E definition.

According to Table DP-1 [3], San Jose's 15-64 years-old population is 61,487 (15-19 years) + 64,418 (20-24 years) + 160,945 (25-34 years) + 155,751 (35-44 years) + 111,383 (45-54 years) + 38,770 (55-59 years) + 29,163 (60-64 years) = 621,917. Among this population, 53,813 people are in high school, 73,669 in college or graduate school [4], so the labor force LF=621,917-53,813-73,669=494,435. From the employed population EP 436,890 [2], we have unemployment rate U=100%-E=100%-EP/LF=100%-436890/494435=12% [5].

There exist several considerations on this conclusion. First, is the city of San Jose large enough to calculate the unemployment? Since the census data is based on residential condition, an area with large mobile population moving in and out is less meaningful to calculate the unemployment. San Jose's 894,943 population is large enough, even though we have not the daily moving population data. It is more significant to calculate the whole Silicon Valley or Santa Clara county's unemployment, if possible.

The second important argument come from the accuracy of the data. The Census 2000 was the largest peacetime effort in the history of the United States. It has a short form to ask every person of 281.4 million people and every housing unit of 115.9 million houses in the U.S. However, this 100-percent characteristics only asks name, household relationship, sex, age, Hispanic or Latin origin, race, tenure and vacancy questions. We cannot obtain employment status from it. The Census also has sample characteristics (long form, general 1 in 6 sampling) to ask additional questions such as labor force status, work status in 1999, which is the base to calculate the national total data [6]. I participated the Census 2000 in the front as a data collector (interviewer) in April 2000. Depending on how many people residing in a house, the long form takes half to several hours to answer. By experience, we know less-educated unemployed people are more likely to refuse to finish the long form [7]. Certainly, censuses never include homeless people or "undocumented" immigrants, which are unemployed. We even do not have their statistical data [8]. It is safe to consider census data underestimates unemployment.

The other important argument is the inclusion of 60-64 years-old population to labor force. Since

the employed number 436,890 includes 60-64 years-old population (29,163) and 65 years-old and over, the 11.6% rate underestimates the unemployment. For people over 65 years old with out employment, it is natural to consider them "retired". The point is whether or not to include 60-64 years-old population to labor force. Financially, most American retirement plans start from 60 years old, so unemployed people over 60 years old can be considered retired. On the other hand, in the most important retirement benefit, Medicare, the national health insurance program is for people age 65 or older [9], so 60-64 years old is not a safe age to retire. At least, people at this age need partly employed. In this regard, census data should specify the age for employed people over 60 years old.

With the above discussion of caution, we reach our conclusion: the most technologically advanced area at its economic peak has the possibly lowest unemployment in the modern world: 12%.

Notes:

[1] Jing Zhao, "Unemployment Redefined," http://cpri.tripod.com/cpr2003/unemployment.pdf .

[2] The following four links can be found from http://www.ci.san-jose.ca.us/planning/sjplan/data/Census_2000/DPindex.html. Table DP-3 http://www.ci.san-jose.ca.us/planning/sjplan/data/Census_2000/Citywide_dp_pdf/demographic_char_2000-3.pdf *Profile of Selected Economic Characteristics: 2000* contains figures on income, poverty, employment status, occupation, industry, and commuting.

[3] Table DP-1 http://www.ci.san-jose.ca.us/planning/sjplan/data/Census_2000/Citywide_dp_pdf/demographic_char_2000-1.pdf *Profile of General Demographic Characteristics: 2000* contains counts of population by sex and age, race, Hispanic or Latino and race, type of household and relationships within households, and housing occupancy and vacancy figures.

[4] Table DP-2 http://www.ci.san-jose.ca.us/planning/sjplan/data/Census_2000/Citywide_dp_pdf/demographic_char_2000-2.pdf *Profile of Selected Social Characteristics: 2000* includes figures on school enrollment, educational attainment, marital status, veteran status, disability status, and residence 5 years ago.

[5] Since most people working in the economic field do not have basic statistical training, we usually read many "accurate" survey-based data. For example, an "accurate" rate 33.1% has the accuracy of 1/331=0.302%, which is nonsense from any survey. In the economic field, two-digit numbers are "accurate" enough, so we use 12% instead of 11.6%.

[6] http://www.census.gov/prod/2001pubs/mso-01icdp.pdf.

[7] I also met a philosopher. He gave profound reason to refuse filling the long form. I did not tell him that by law, the Census Bureau has the right to take action against him, because the Bureau itself is afraid of taking such actions.

[8] Richard Hobbs, _Bridging Board_ Summer 2004: "About 10 million immigrants in the United States are currently undocumented, according to the Urban Institute. Approximately one hundred thousand live in Santa Clara County, according to estimates from 2000 Santa Clara County study _Bridging Borders in Silicon Valley_."

[9] People disabled can start receiving benefit early. See http://www.cms.hhs.gov/medicare/.

Jing Zhao, June 2004

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