

Construction of the Maximum Employment Rate

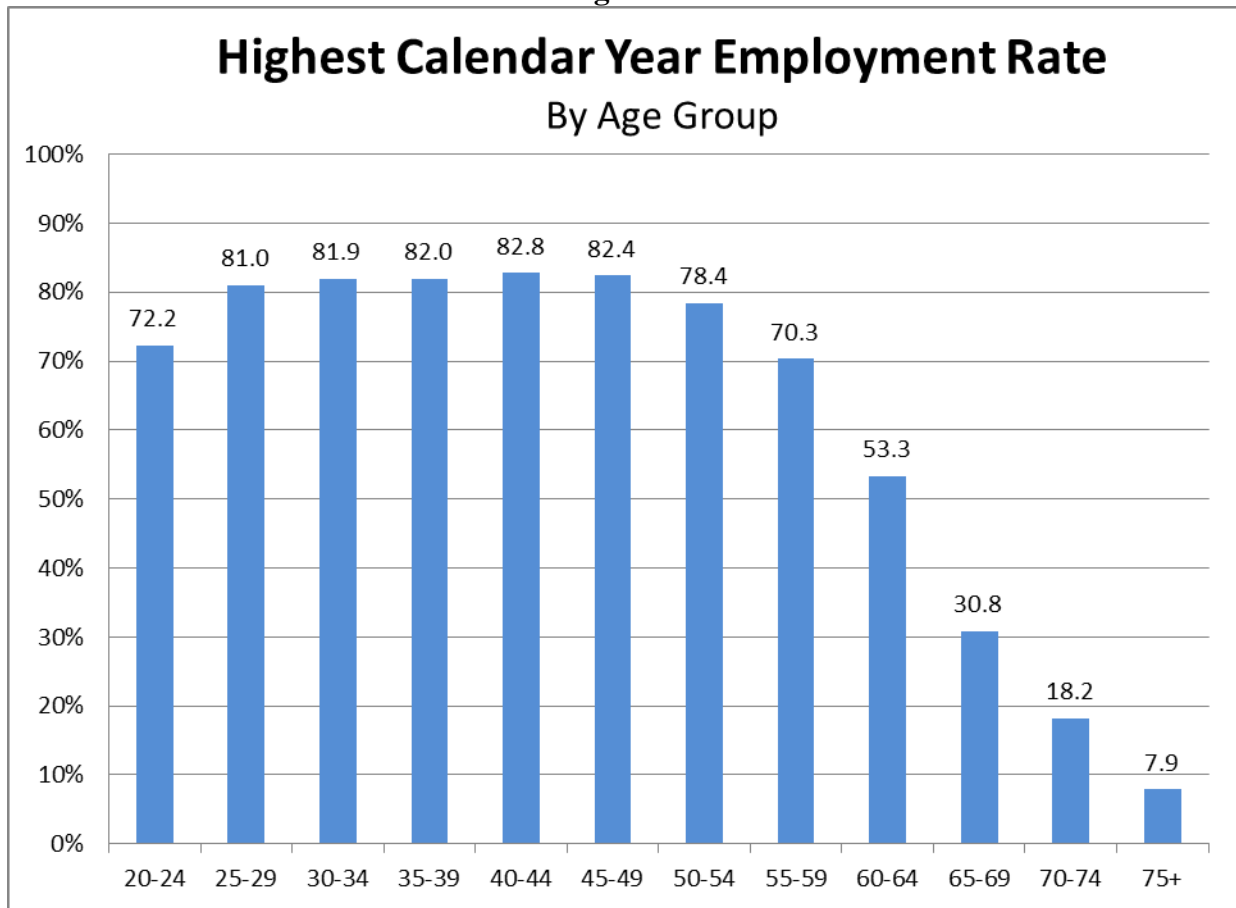
The maximum employment rate shows what the overall employment rate would be if each age group were to simultaneously achieve its *peak employment rate*. The *peak employment rate* for each age group is equal to the highest calendar-year employment rate achieved by the given group.

The Bureau of Labor Statistics (BLS) grants access to employment data for the following age groups: 16–17; 18–19; 20–24; 25–29; 30–34; 35–39; 40–44; 45–49; 50–54; 55–59; 60–64; 65–69; 70–74; and 75 and over.

A decision was made to exclude persons below the age of 20 from the maximum employment rate. It is not clear that a higher rate of employment among teenagers is actually a positive: employment was highest for 16–19 year-olds in the 1940s and 1950s, back when high school and college enrollment rates were substantially lower. In 1951, the employment rates of 16–17 and 18–19 year-olds were 38.5 and 58.1 percent, respectively. By 2015, those rates had fallen to 18.3 and 40.0 percent. The declines appear even more substantial when we recognize that women have moved out of the house and into jobs over the past seventy years. For 16–17 year-old men, employment dropped from 48.0 percent in 1951 to 17.7 percent in 2015; and for 18–19 year-old men, the rate fell from 69.8 to 39.7 percent. It is not clear that we should count this decline in employment as a sign of labor market weakness as opposed to a sign of rising educational attainment.

Therefore, the maximum employment rate is limited to the population aged 20 and over. **Figure 1** shows the highest calendar-year employment rate for each age group that was used to calculate the maximum employment rate.

Figure 1



Source: Bureau of Labor Statistics.

Table 1 provides additional detail. For each age group, the table displays the year of peak employment, the number of people employed that year, the civilian noninstitutional population, and the employment rate.

Table 1

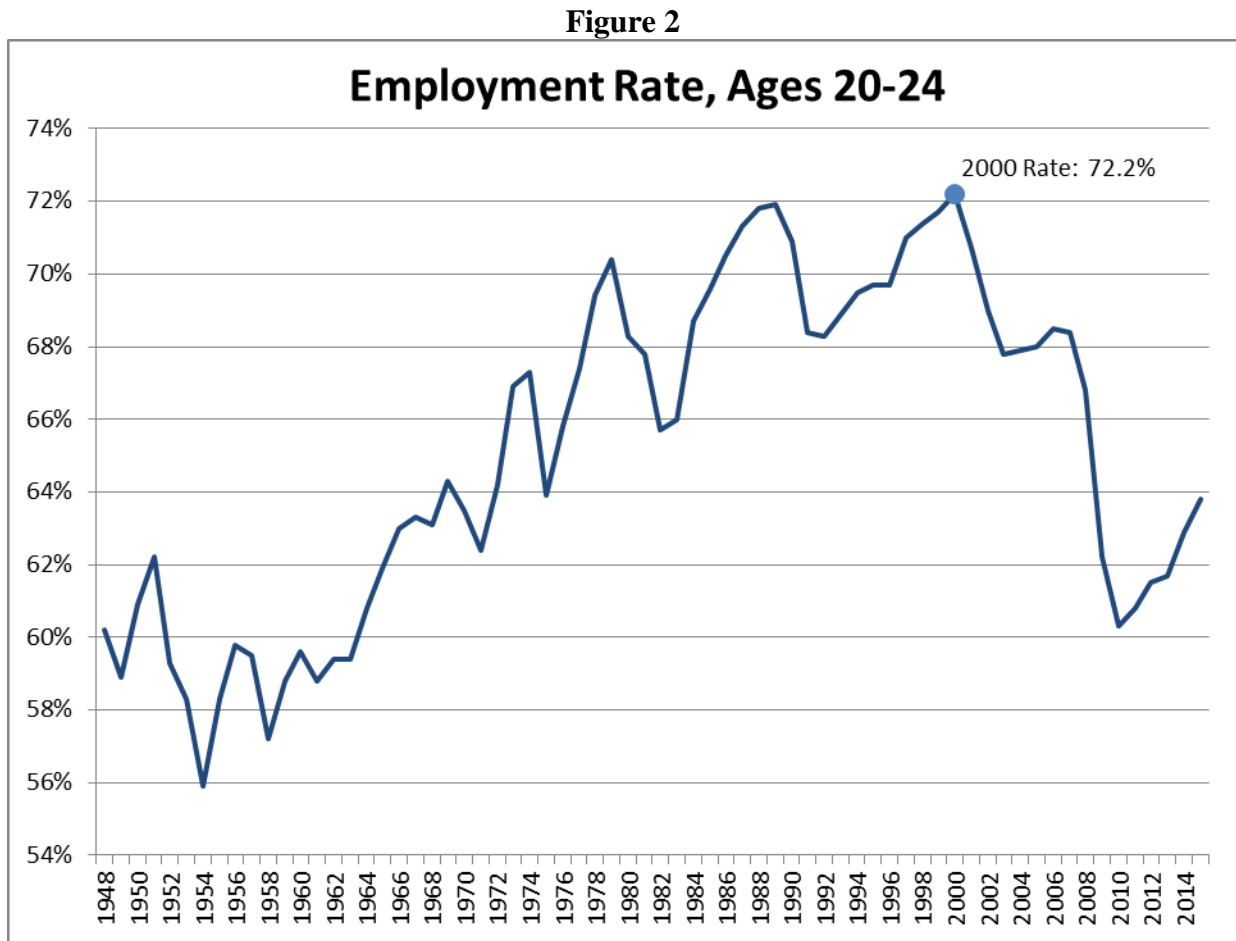
Age Group	Year	Employment Level*	Population*	Employment Rate
20-24	2000	13,229	18,311	72.25%
25-29	2000	15,149	18,692	81.05%
30-34	2000	16,399	20,011	81.95%
35-39	1999	18,345	22,379	81.97%
40-44	2000	18,400	22,225	82.79%
45-49	2000	16,485	20,006	82.40%
50-54	2000	13,825	17,636	78.39%
55-59	2008	12,969	18,444	70.32%
60-64	2014	9,880	18,524	53.34%
65-69	2015	4,926	15,976	30.83%
70-74	2012	1,794	9,853	18.21%
75+	2015	1,517	19,203	7.90%

Source and notes: Bureau of Labor Statistics. * = Thousands of people.

However, one issue arose in determining each group's peak employment rate: for many of the age groups, employment data only go back to 1994. This issue is discussed in the various sections below.

Age Group: 20–24

The peak employment rate for the 20–24 age group was the single easiest peak rate to identify. **Figure 2** below shows the annual employment rate for 20–24 year-olds from 1948 to 2015.

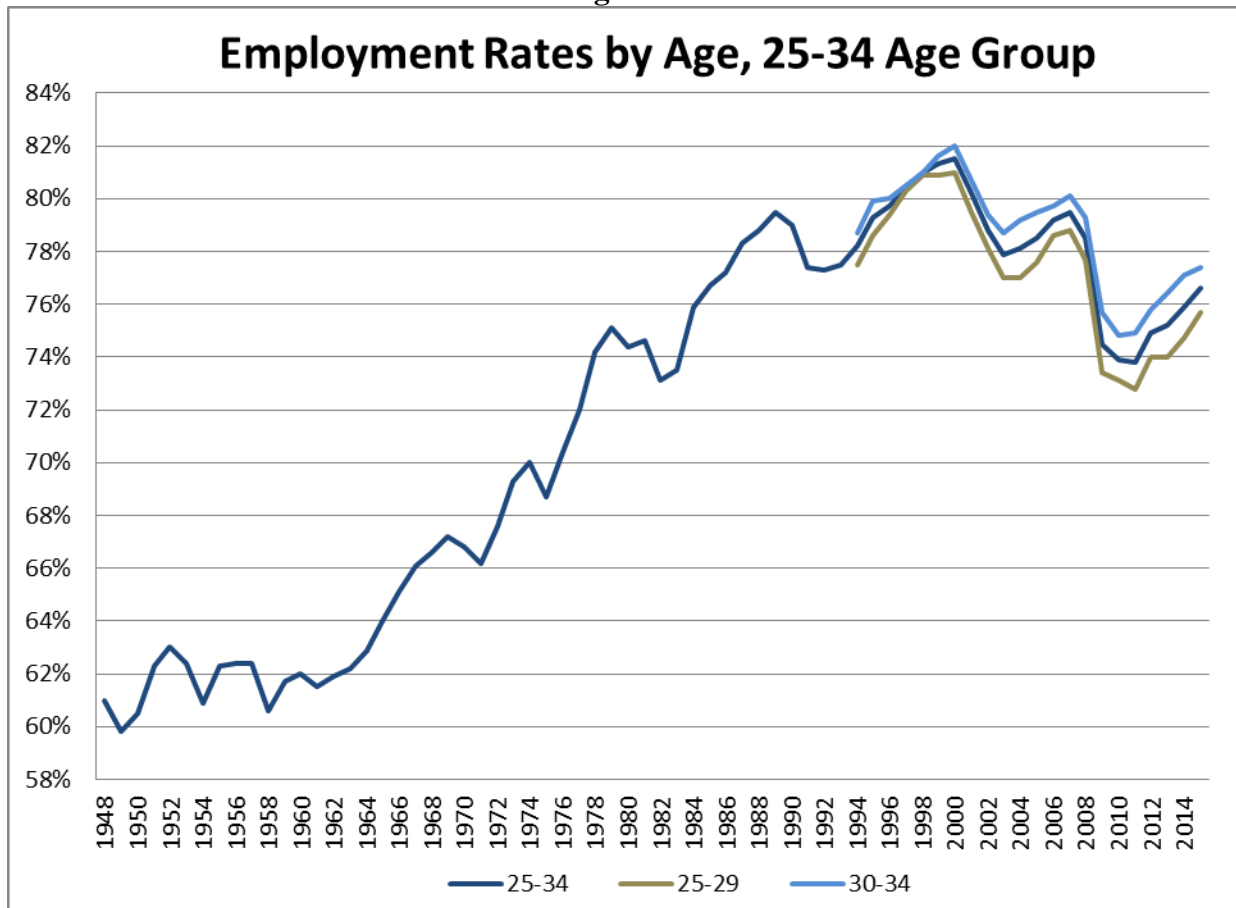


Source: Bureau of Labor Statistics.

Age Groups: 25–29 & 30–34

The BLS has tracked the employment rate of Americans aged 25–34 since 1948. However, it only broke the 25–34 group into separate sub-groups of 25–29 and 30–34 beginning in 1994. **Figure 3** shows the 25–34 employment rate from 1948–2015 as well as the 25–29 and 30–34 employment rates from 1994–2015.

Figure 3



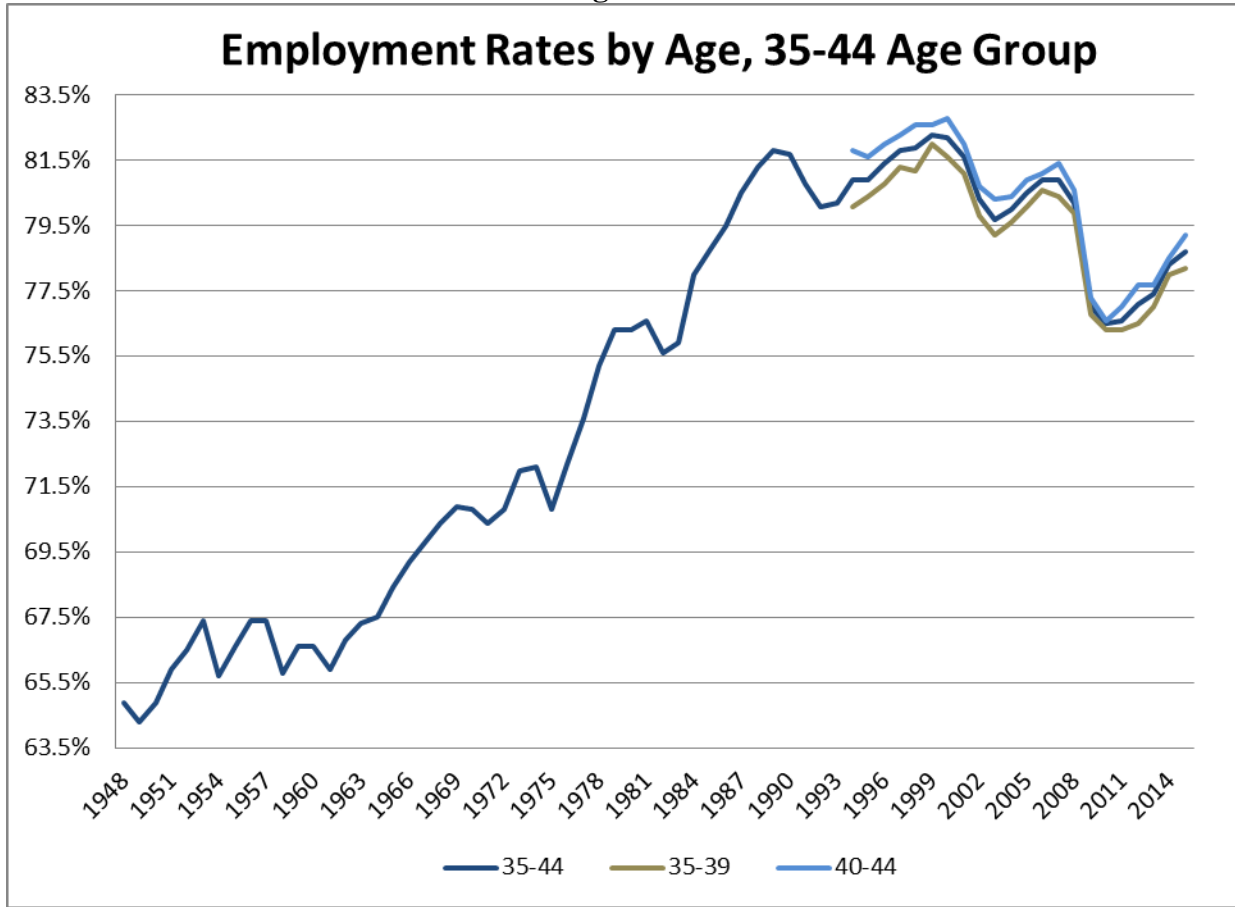
Source: Bureau of Labor Statistics.

The employment rate for 25–34 year-olds peaked in 2000 at 81.5 percent. Employment peaked for both 25–29 year-olds and 30–34 year-olds that year, with the two sub-groups achieving employment rates of 81.0 and 82.0 percent, respectively. Given that the pre-1994 peak employment rate for the 25–34 age group was lower than 81.0 percent – it hit a high of 79.5 percent in 1989 – it is clear that neither 25–29 nor 30–34 year-olds hit their peak employment rate before 1994.

Age Groups: 35–39 & 40–44

The BLS has tracked the employment rate of 35–44 year-olds since 1948 (**Figure 4**). As with the 25–34 group, the 35–44 age group has only been divided into separate age groups since 1994. The 35–44 employment rate peaked at 82.3 percent in 1999; the 35–39 sub-group saw its employment rate peak at 82.0 percent that year, while employment didn't peak for 40–44 year-olds until the next year (82.8 percent). The highest pre-1994 employment rate for 35–44 year-olds came in 1989, when employment stood at 81.8 percent.

Figure 4

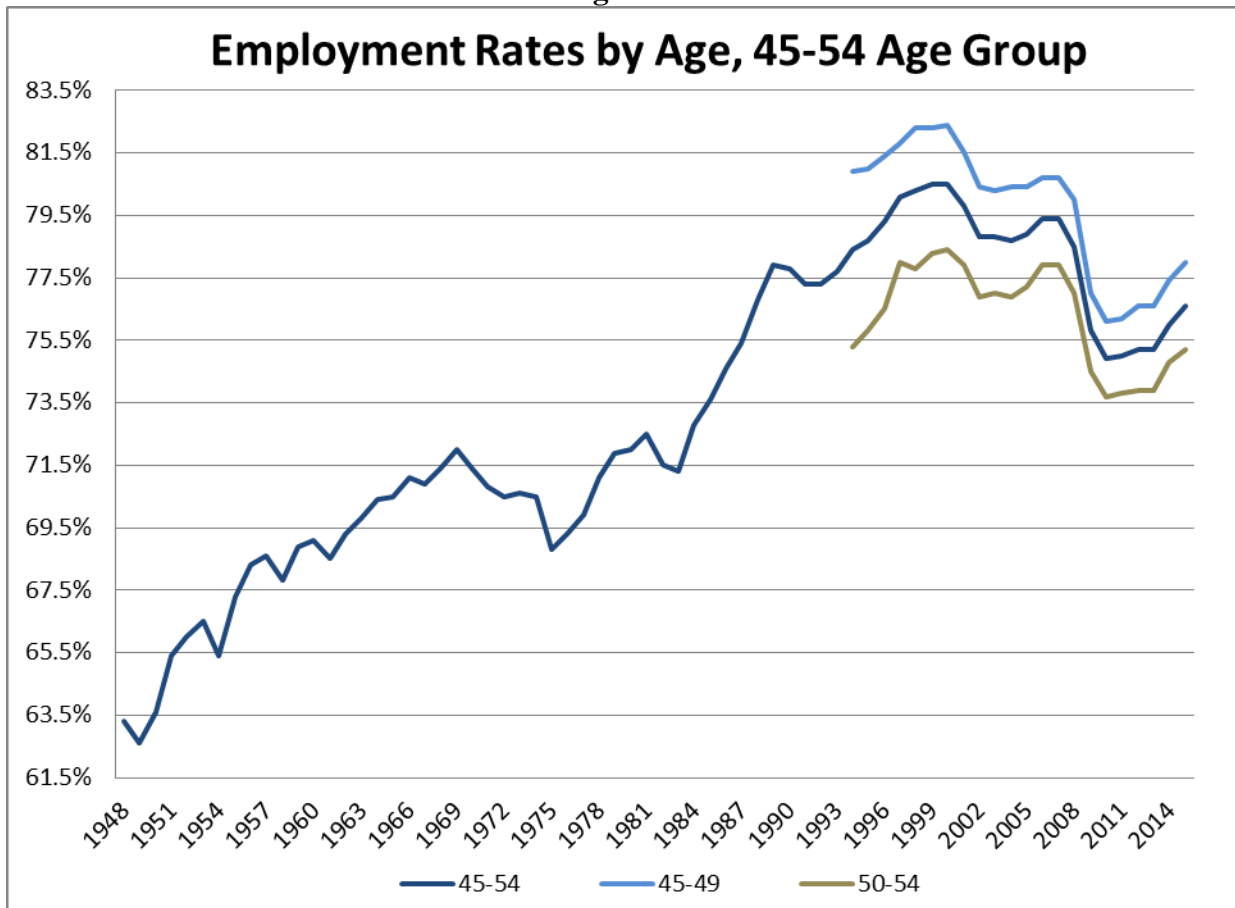


Source: Bureau of Labor Statistics.

Age Groups: 45-49 & 50-54

Figure 5 shows employment rates for 45-54 year-olds, 45-49 year-olds, and 50-54 year-olds going back to 1948, 1994, and 1994, respectively. The employment rate for the overall 45-54 age group peaked at 80.5 percent in 1999 and 2000. This was substantially higher than the pre-1994 peak of 77.9 percent from 1989. Employment rates for 45-49 and 50-54 year-olds hit their 1994-2015 peaks of 82.4 and 78.4 percent in 2000. That year clearly provides us with each sub-group's overall 1948-2015 peak employment rate.

Figure 5

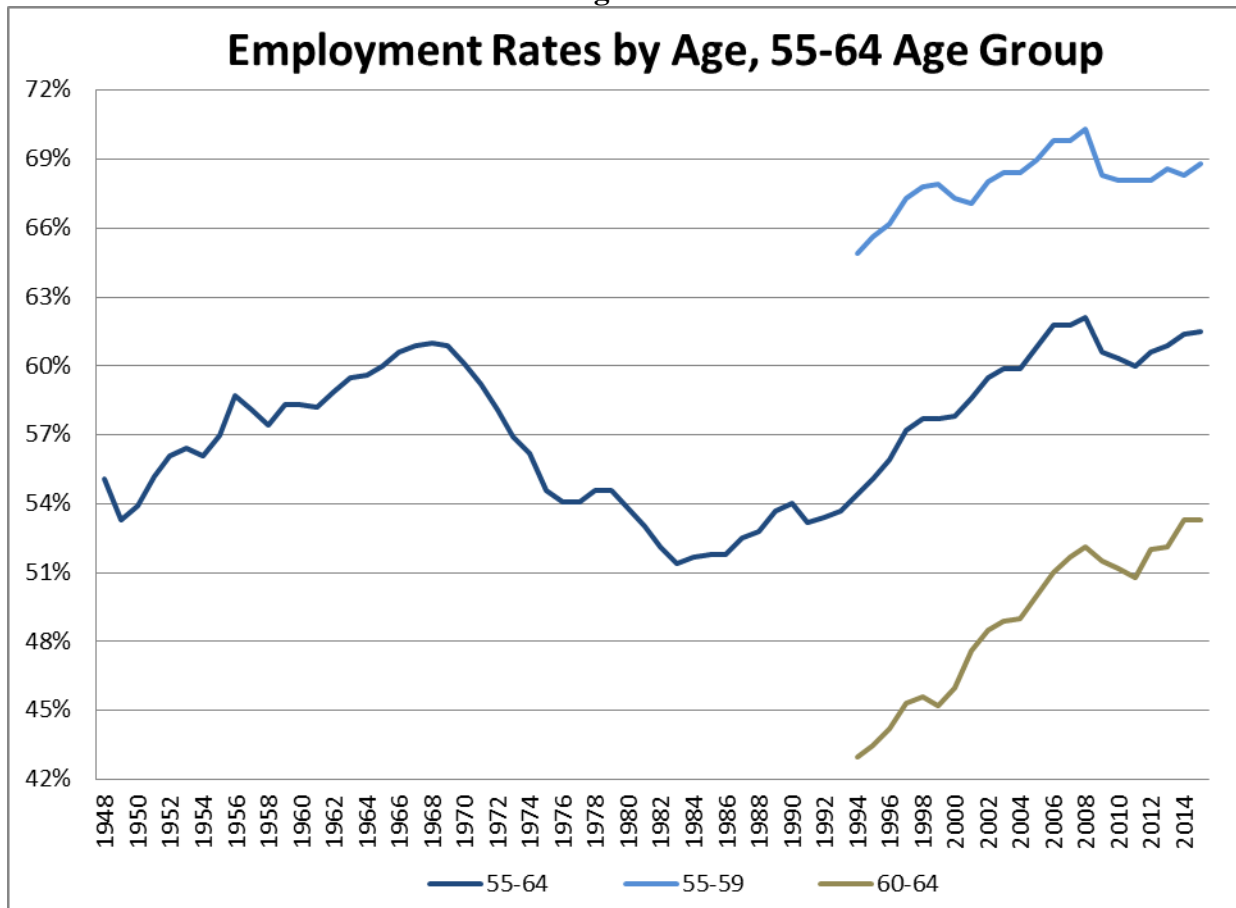


Source: Bureau of Labor Statistics.

Age Groups: 55-59 & 60-64

Figure 6 is similar to Figures 2-5. It shows the employment rate for 55-64 year-olds from 1948 to 2015 along with the employment rates for 55-59 and 60-64 year-olds from 1994 to 2015.

Figure 6



Source: Bureau of Labor Statistics.

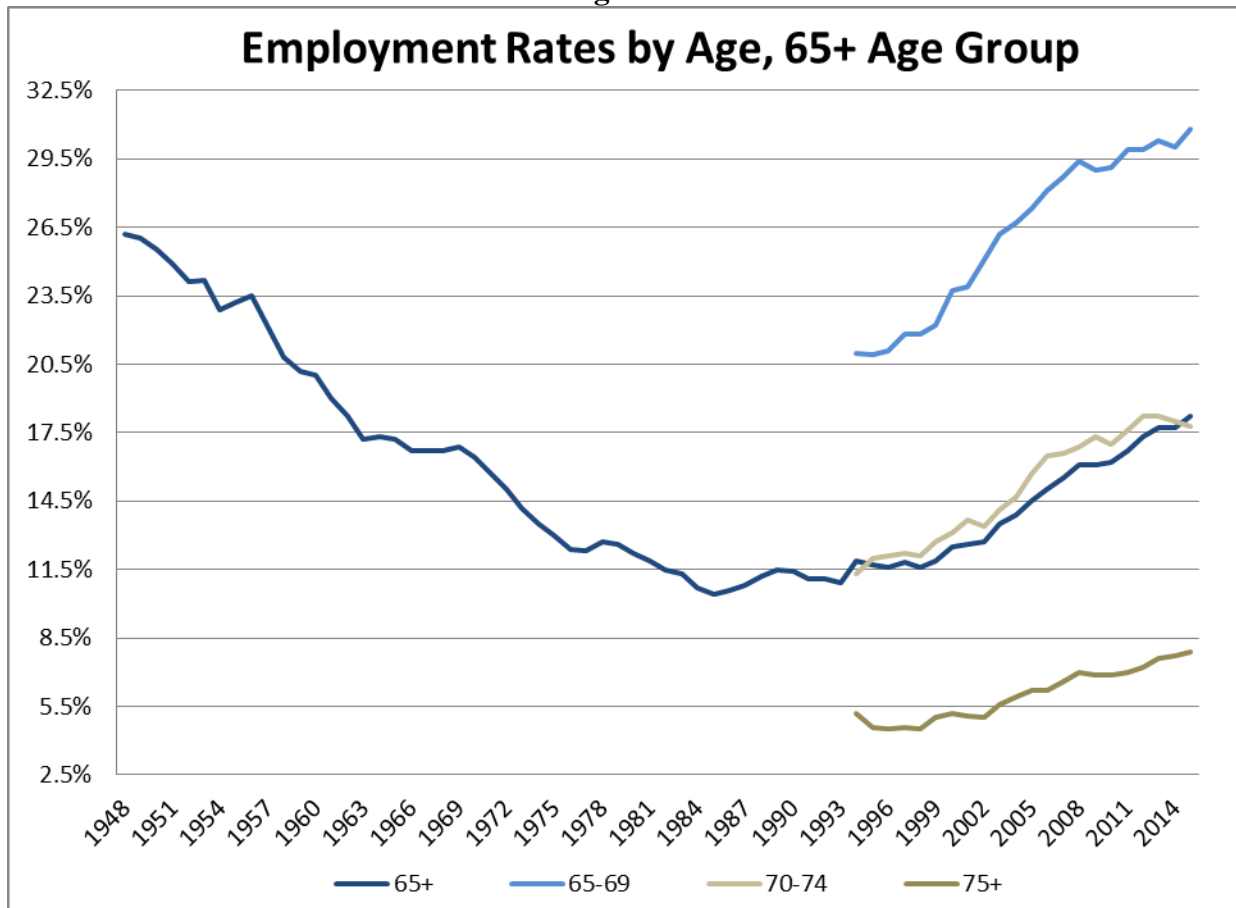
Given this graph, it is not entirely clear that employment peaked among either 55–59 or 60–64 year-olds between 1994 and 2015. Employment peaked at 62.8 percent for the 55–64 age group in 2008; yet this was not substantially higher than the 1968 peak of 61.0 percent. However, given that employment *did* peak for 55–64 year-olds in 2008, there is no utility in using pre-1994 data for the overall 55–64 group rather than data on the more specific age groups from 1994 – 2015.

For 55–59 year-olds, employment peaked at 70.3 percent in 2008; for 60–64 year-olds, the rate peaked at 53.3 percent in 2014.

Age Groups: 65–69, 70–74, and 75+

Employment amongst seniors did present a few problems. The BLS has employment data going back to 1948 for persons aged 65 and older; beginning in 1994, more specific data are available for the age groups 65–69, 70–74, and 75 and over. Their employment rates are shown in Figure 7 below.

Figure 7



Source: Bureau of Labor Statistics.

For older workers, it is clear that employment did not peak between 1994 and 2015. There are two ways of handling this methodologically. The first option would be to count the 65 and over population as a single monolithic block when calculating the maximum employment rate. The benefit of this methodology is that it allows us to include what is clearly the peak employment rate for seniors – the employment rate for persons aged 65 and older was 26.2 percent in 1948, far higher than the post-1994 peak of 18.2 percent from 2015. The problem with this methodology is that it does not allow for fine-grained demographic analysis, as we are not accounting for the fact that employment is over four times as high among 65–69 year-olds as it is among Americans 75 and older.

The second option is to use the 1994–2015 peak employment rates for each specific age group. The upside to this methodology is that it allows us to see how the maximum employment rate falls as people move from their sixties to their seventies. The downside is that we will not have captured the true peak employment rate for the 65 and over population.

Ultimately, the utility of the more fine-grained age data depends on the extent of the differences in employment among the various sub-groups. For instance, distinguishing between 25–29 and 30–34 year-olds does not dramatically improve the precision of our results, since employment rates are almost the same for the two groups (see figure 3). On the other hand, over the past 22 years, the average gap in employment rates between the 65–69 and 75+ age groups has been over 20 percentage points. Shifting 5 percent of the population from the 65–69 group to the 75+ group would decrease the overall employment rate by over a percentage point.

Given these sizable differences in employment rates, the second methodology was chosen over the first. Employment peaked at 30.8 and 7.9 percent, respectively, for the 65–69 and 75+ age groups in 2015. The peak employment rate of persons aged 70–74 came in 2012, when employment jumped 0.6 percentage points to 18.2 percent.

The Current Gap

Had each age group been employed at the rates displayed in Table 1, the employment rate for the population aged 20 and over would've been 64.5 percent in April. Instead, it was 61.8 percent.