## Group Project Worksheet

## The Income Gap

## Group Members:

This worksheet must be turned in with the summary paper. Complete each question, and if you are asked to make a computation, show all of your work. Write neatly and legibly. Points may be deducted if answers are incorrect, incomplete, or messy.

## Independent Research

In recent years, there have been increased concerns that the gulf between income groups in the United States has widened. Do some research to find two articles published in newspapers or magazines during the last five years that address these issues. In your summary paper, describe the main points in the articles and briefly explain their arguments in your own words.

## Growing Income Gap?

Use the data from the Current Population Survey (CPS) carried out by the US Census Bureau to analyze the issue of a growing income gap in the United States. Details about the CPS can be found on the Bureau of Labor Statistics and Census Bureau website
http://www.census.gov/cps/

Using the information there, answer the following questions.

1. Briefly describe the focus of the CPS.
2. Fill in the rest of the table below with data on the mean income (in dollars) of the following 3 groups: all US households, the top $20 \%$ of US households, and the top 5\% of US households. Amounts should be in "current dollars" - i.e., before adjusting for inflation.

Note: You can find the needed informtion by finding the "mean household income" spreadsheet for all races at the following page:
http://www.census.gov/hhes/www/income/data/historical/inequality/
Although the mean income for all US households is not provided at the above link, you can compute it from the data that is present there.

| Year | All US Households | Top 20\% | Top 5\% |
| :---: | :---: | :---: | :---: |
| 1990 | 37,403 | 87,137 | 138,756 |
| 1991 | 37,922 | 88,127 | 137,530 |
| 1992 |  |  |  |
| 1993 |  |  |  |
| 1994 |  |  |  |
| 1995 |  |  |  |
| 1996 |  |  |  |
| 1997 |  |  |  |
| 1998 |  |  |  |
| 1999 |  |  |  |
| 2000 |  |  |  |
| 2001 |  |  |  |
| 2002 |  |  |  |
| 2003 |  |  |  |
| 2004 |  |  |  |
| 2005 |  |  |  |
| 2006 |  |  |  |
| 2007 |  |  |  |
| 2008 |  |  |  |
| 2009 |  |  |  |
| 2010 |  |  |  |

3. Present the data on a scatter plot using different symbols or colors to represent the three groups. Draw a line for the data of each group that visually fits that data well.
4. Find the equations of the three lines you drew for the previous question.
(a) Mean Income of All US Households: $\qquad$
(b) Mean Income of Top 20\%: $\qquad$
(c) Mean Income of Top 5\%:
5. Interpret the slopes of the three lines in the pratical terms of the problem.
6. Use your graph to consider the question, "Is the income gap widening in the US?" In your analysis, be sure to take into consideration that when we consider that when we examine income, we generally think in terms of percent change. (For example, while a $\$ 10 / \mathrm{hr}$ raise for each of two people earning $\$ 20 / \mathrm{hr}$ and $\$ 50 / \mathrm{hr}$ respectively is the same amount of increase in dollars, the first person gets a $50 \%$ raise while the second person gets only a $20 \%$ raise.)

## Adjusting for Inflation

The data used above has not been adjusted for inflation. Since $\$ 1$ in 2006 does not have the same purchasing power as $\$ 1$ in 1990, a real comparison of income should take the purchasing power of the dollar in a given year into consideration. The Consumer Price Index is often used to adjust for effects of inflation. Use the inflation calculator on the Bureau of Labor Statistics web site,

> http://www.bls.gov/data/inflation_calculator.htm
to determine the purchasing power of a dollar during previous years in terms of today's dollars.

1. Fill in each blank with the equivalent value in today's dollars.

- $\$ 1$ in $1990=\$$
today
- $\$ 1$ in $1991=\$$ today
- $\$ 1$ in $1992=\$$ today
- $\$ 1$ in $1993=\$$ today
- $\$ 1$ in $1994=\$$ today
- $\$ 1$ in $1995=\$$ today
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- $\$ 1$ in $2003=\$$ today
- $\$ 1$ in $2004=\$$ today
- $\$ 1$ in $2005=\$$ today
- $\$ 1$ in $2006=\$$ today
- $\$ 1$ in $2007=\$$ today
- $\$ 1$ in $2008=\$$ today
- $\$ 1$ in $2009=\$$ today
- $\$ 1$ in $2010=\$$ today

2. Redo the table from page 2 in "inflation adjusted income" or, more precisely, in today's dollars.

| Year | All US Households | Top 20\% | Top 5\% |
| :---: | :---: | :---: | :---: |
| 1990 |  |  |  |
| 1991 |  |  |  |
| 1992 |  |  |  |
| 1993 |  |  |  |
| 1994 |  |  |  |
| 1995 |  |  |  |
| 1996 |  |  |  |
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| 2004 |  |  |  |
| 2005 |  |  |  |
| 2006 |  |  |  |
| 2007 |  |  |  |
| 2008 |  |  |  |
| 2009 | - |  |  |
| 2010 |  |  |  |

3. Present the data on a scatter plot using different symbols (or colors) to represent the three groups. Draw a line for the data of each group that visually fits that data well.
4. Find the equations of the three lines you drew for the previous question.
(a) Mean Income of All US Households: $\qquad$
(b) Mean Income of Top 20\%: $\qquad$
(c) Mean Income of Top 5\%:
5. Interpret the slopes of the three lines in the pratical terms of the problem.
6. Explain the effect of adjusting for inflation on your conclusions for section II.
7. Finally, relate your own analyses and calculations to the information in the articles you have read and summarize your group's conclusions about an income gap in the United States.
