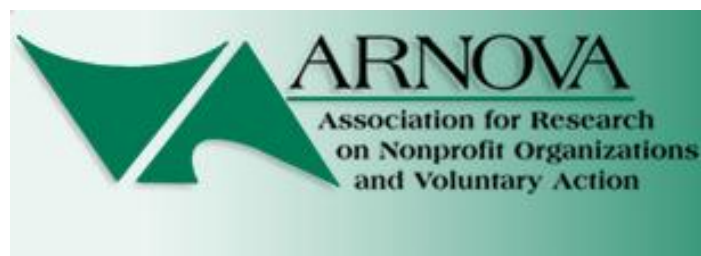




## **Disaster Giving 2005: Size, Scope, and Effects on the Nonprofit Sector**

Patrick Rooney, Ph.D., Director of Research and  
Professor of Economics & Philanthropic Studies

Heidi Frederick, Assistant Director of Research

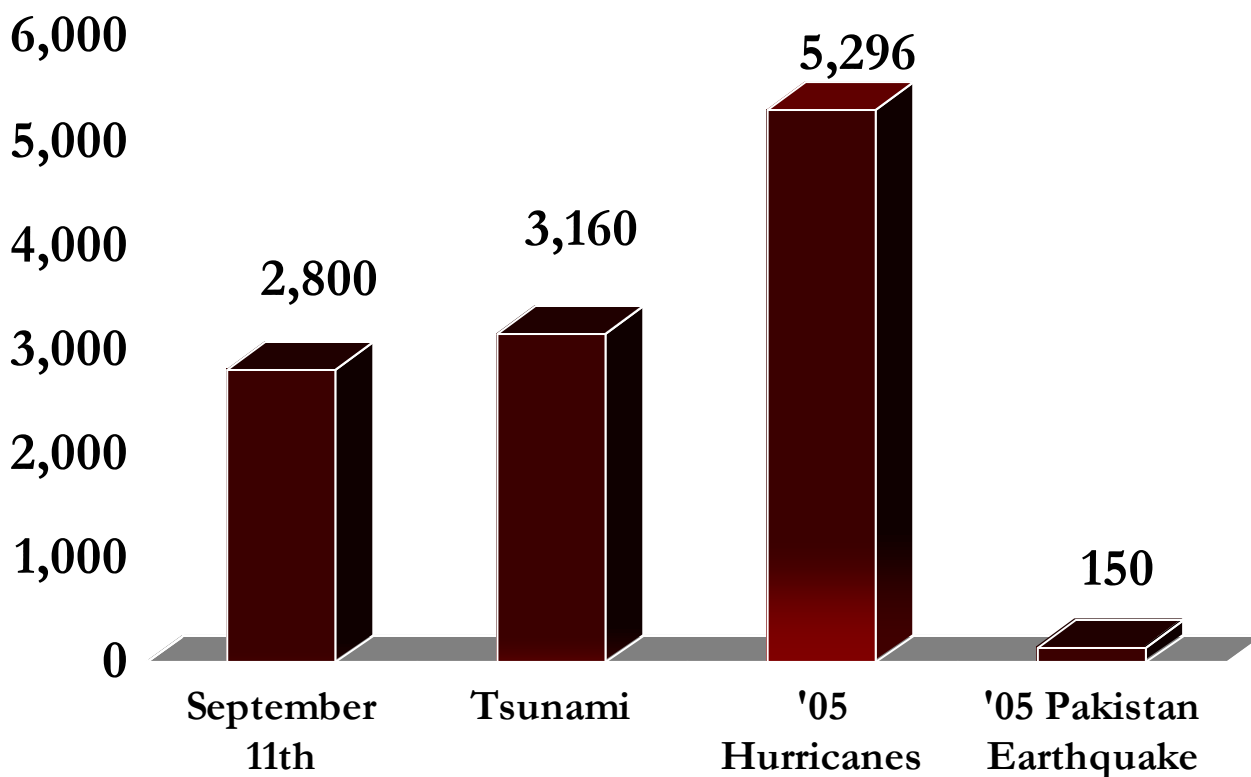


**November 16, 2006  
Chicago, IL**

## Central Questions

- What was the total amount donated for disaster relief?
- Who gives for disaster relief?
- How are donations made for disaster relief?

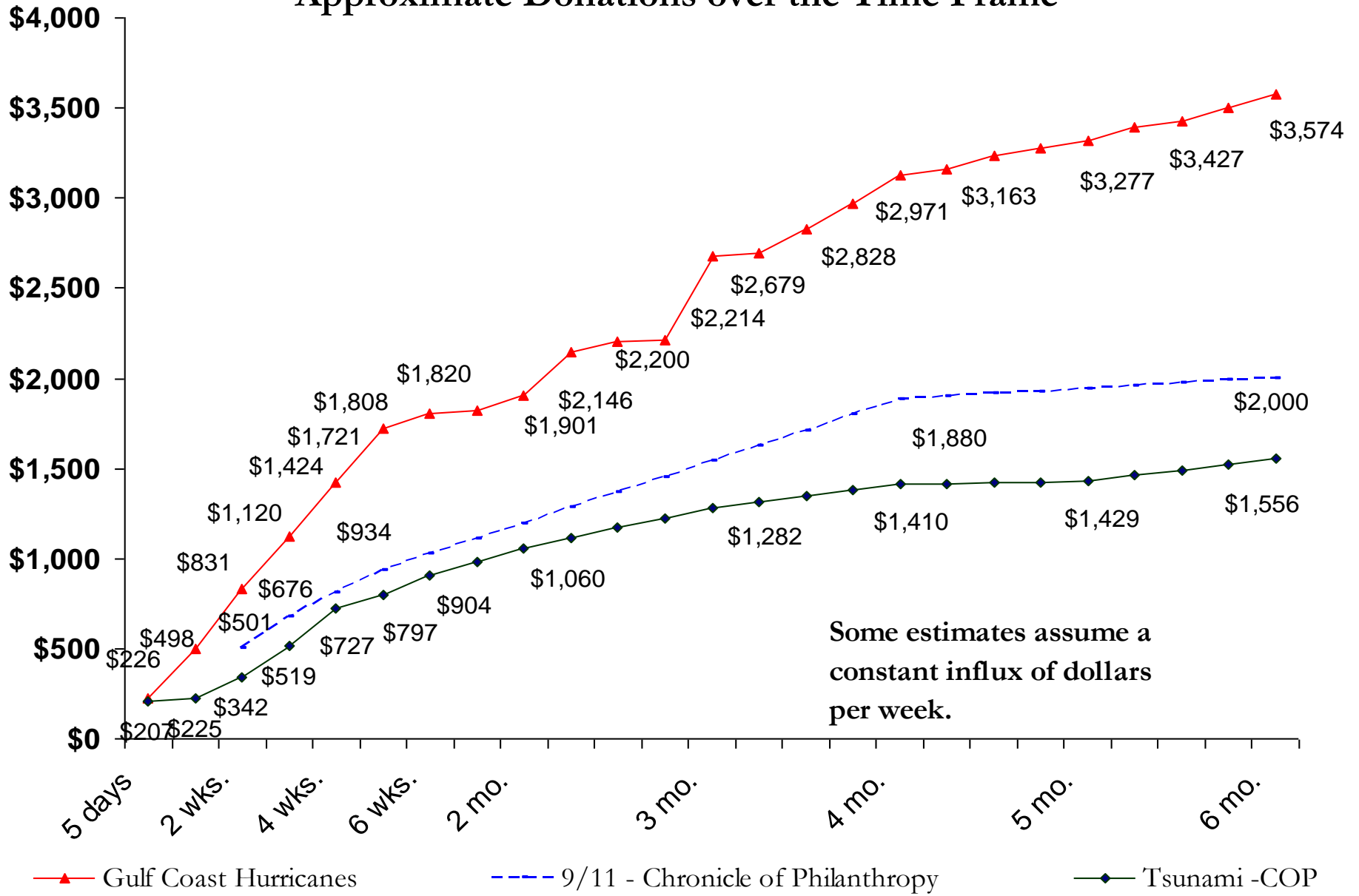
## Total Disaster Relief Giving by U.S. Households, Foundations & Corporations (\$ millions)



Sources:

- 9/11 – The Foundation Center September 11: The Philanthropic Response report
- '05 Hurricanes - The Giving USA Foundation, *Giving USA 2006* researched and written at the Center on Philanthropy at Indiana University
- Tsunami – The Center on Philanthropy using the Center on Philanthropy Panel Study (COPPS) 2005 preliminary data
- Pakistan – The Center on Philanthropy at Indiana University

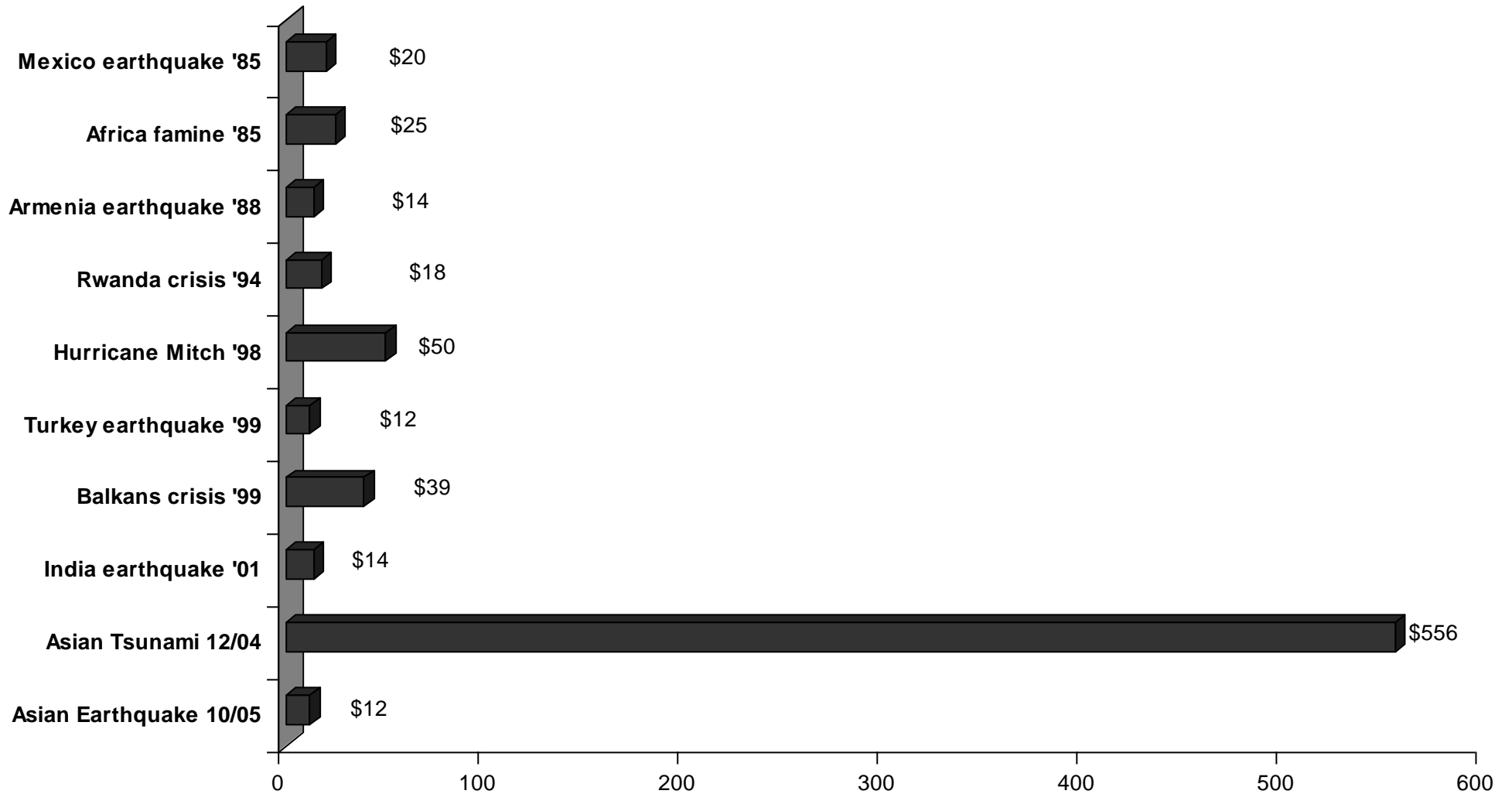
## Six Month Disaster Giving Timeline Approximate Donations over the Time Frame



Source: Center on Philanthropy at Indiana University, Chronicle of Philanthropy amounts for 9/11

# American Red Cross' Largest Donations to International Disasters

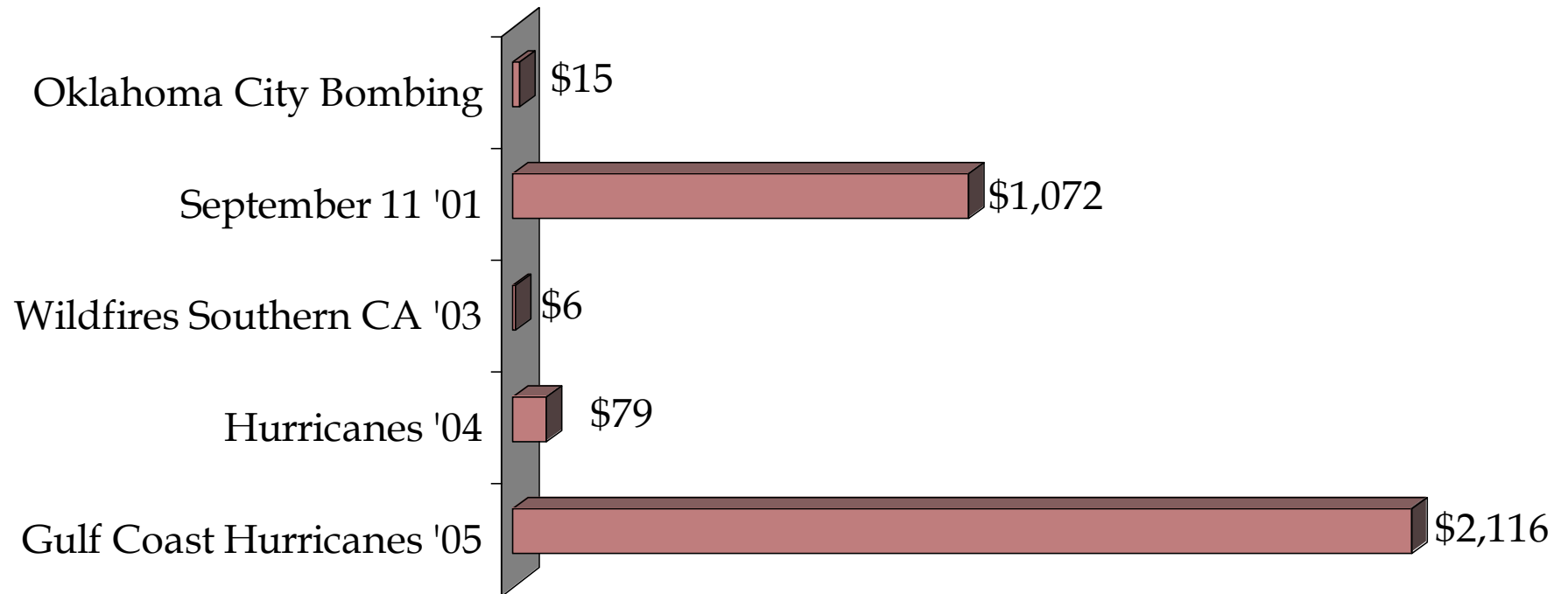
(in millions)



Source: Associated Press & The Center on Philanthropy at Indiana University  
Dollars are assumed to be nominal.

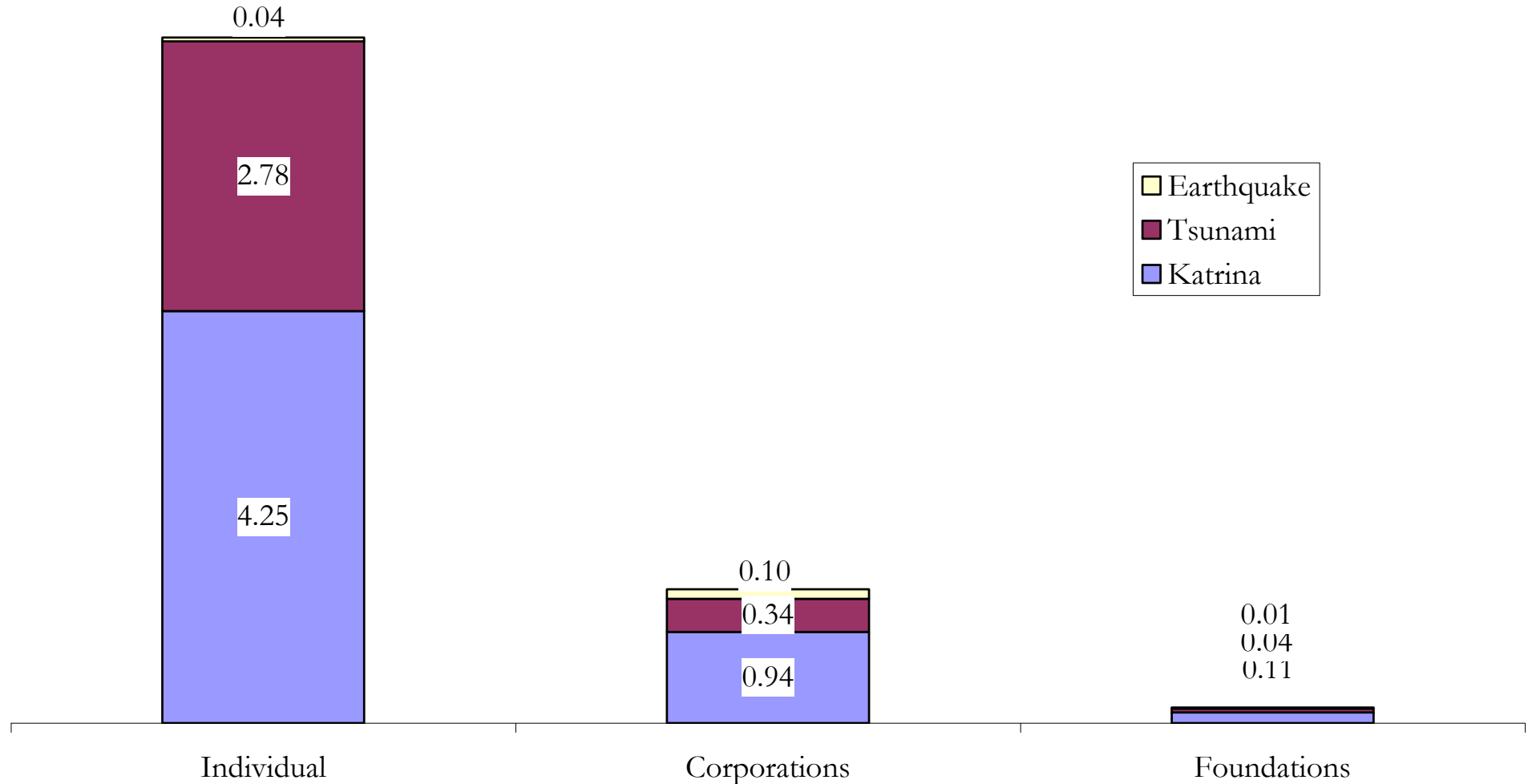
# American Red Cross' Donations to Domestic Disasters

(in millions)



Source: Associated Press & The Center on Philanthropy at Indiana University  
Nominal dollars

**Estimated Disaster Contributions by Donor Type**  
*Giving USA 2006 & COPPS '05*  
 (\$ in billions)

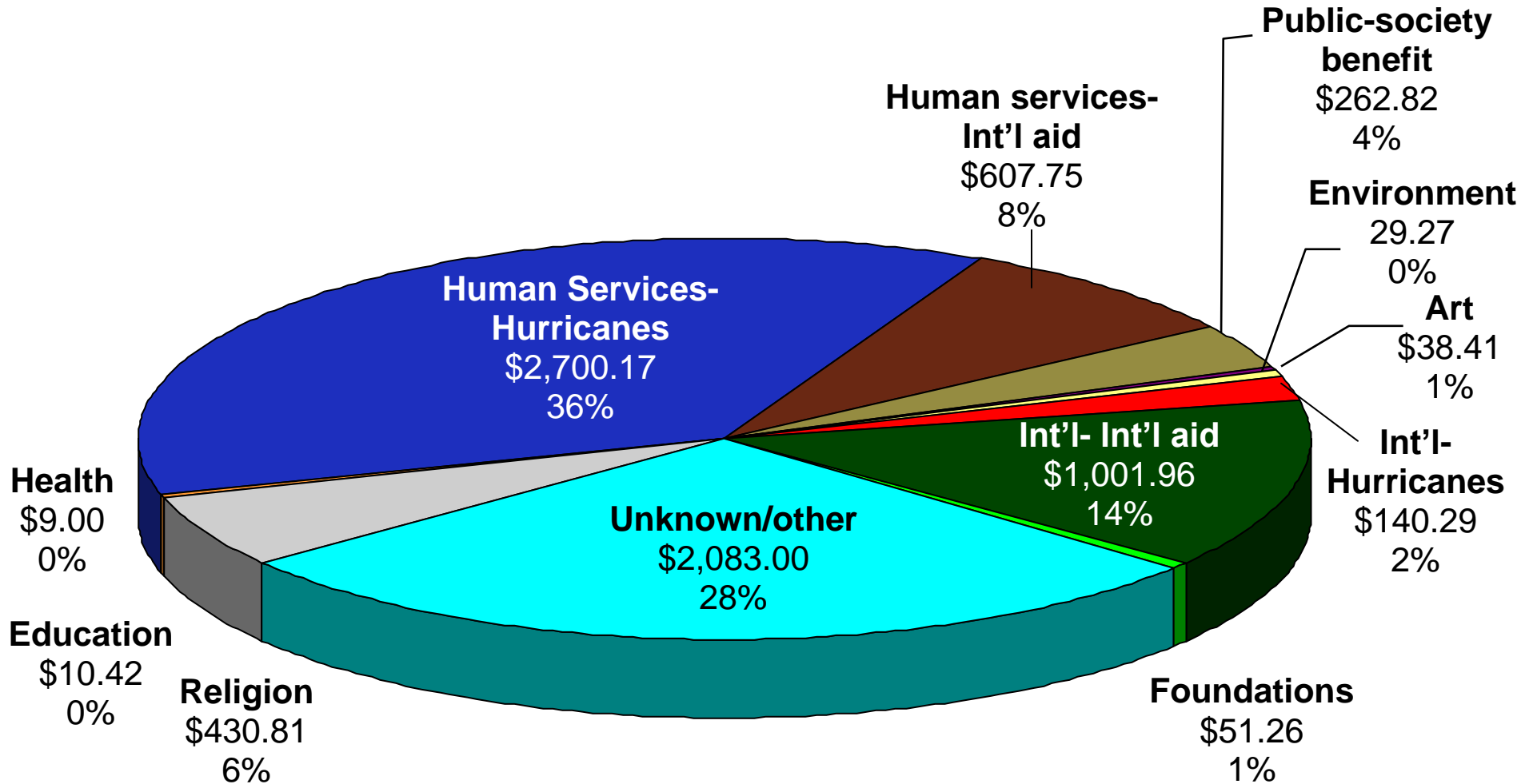


Source: Giving USA Foundation, *Giving USA 2006* and Center on Philanthropy Data;  
 Tsunami Households Giving - *Center on Philanthropy Panel Study (COPPS) 2005* preliminary data.

# Giving USA 2006

## Recipients of Disaster Relief Giving 2005

(\$ in millions: estimated total = \$7,365 million [\$7.37 billion])



Source: Giving USA Foundation, *Giving USA 2006* and Center on Philanthropy Data

## Source of Asian Tsunami Data

- Preliminary Release of the Center on Philanthropy Panel Study (COPPS) 2005 wave
- COPPS is part of the Panel Study of Income Dynamic at the University of Michigan.
- Released only to the Center on Philanthropy for this preliminary analysis on the giving for tsunami relief questions.
- COPPS 2003 and the preliminary COPPS 2005 data were merged in order to obtain demographics such as income and wealth.
- Therefore, the demographics used in the Cross-Tabulations and the Regression results are 2003 characteristics.
- The 2003 family weight was applied to the merged data to make the sample nationally representative. The 2005 family weight had not been generated at the time of analysis.

## Descriptive Statistics

### Comparing Giving for Disaster Relief

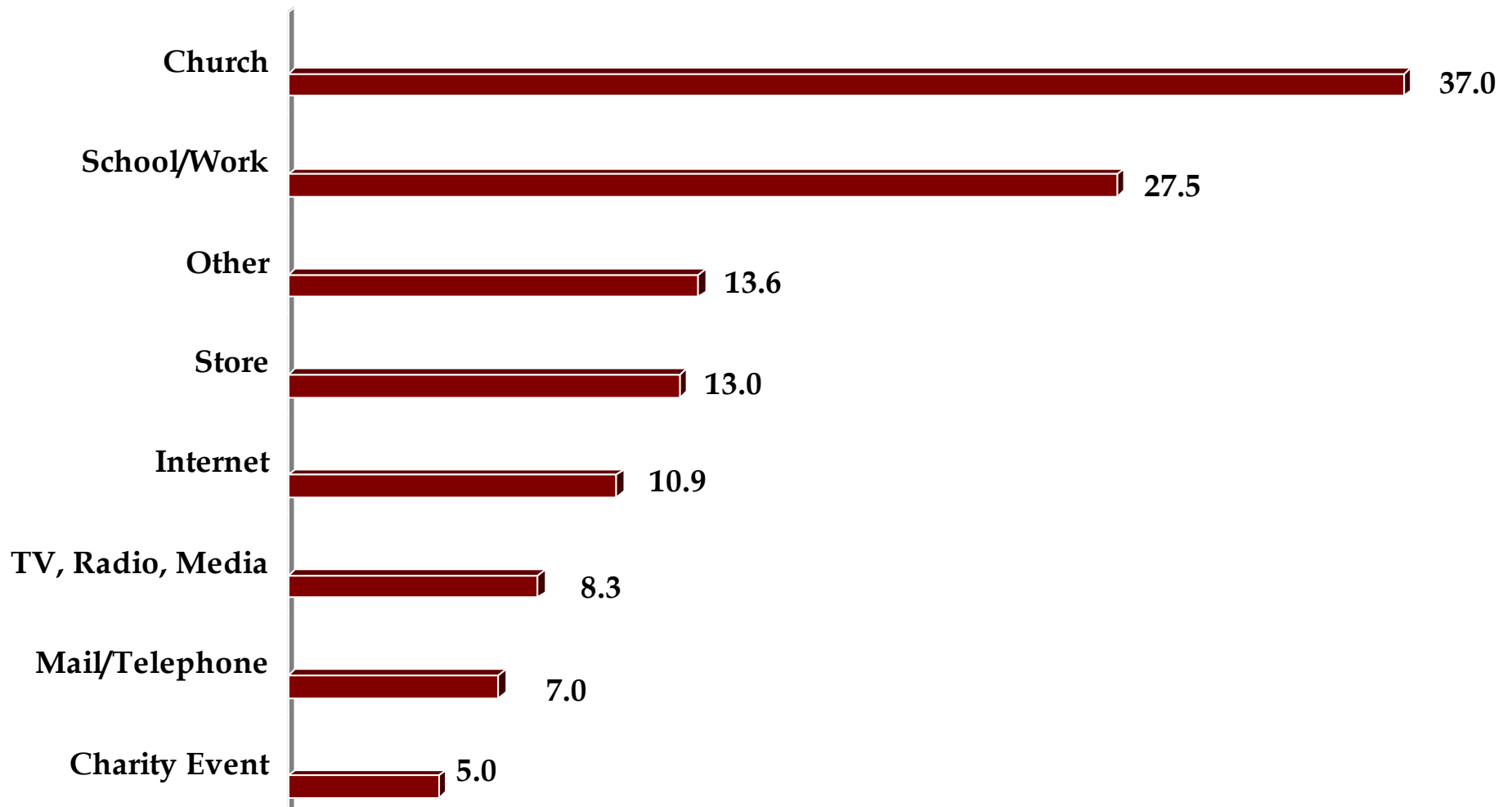
	Median	Mean	% Donated
Katrina, Rita, & Wilma	\$26-\$99	Unknown	47%
Tsunami	\$50	\$135*	25%
9/11	\$50	\$134	66%

\*Households that made donations of \$1 or more.

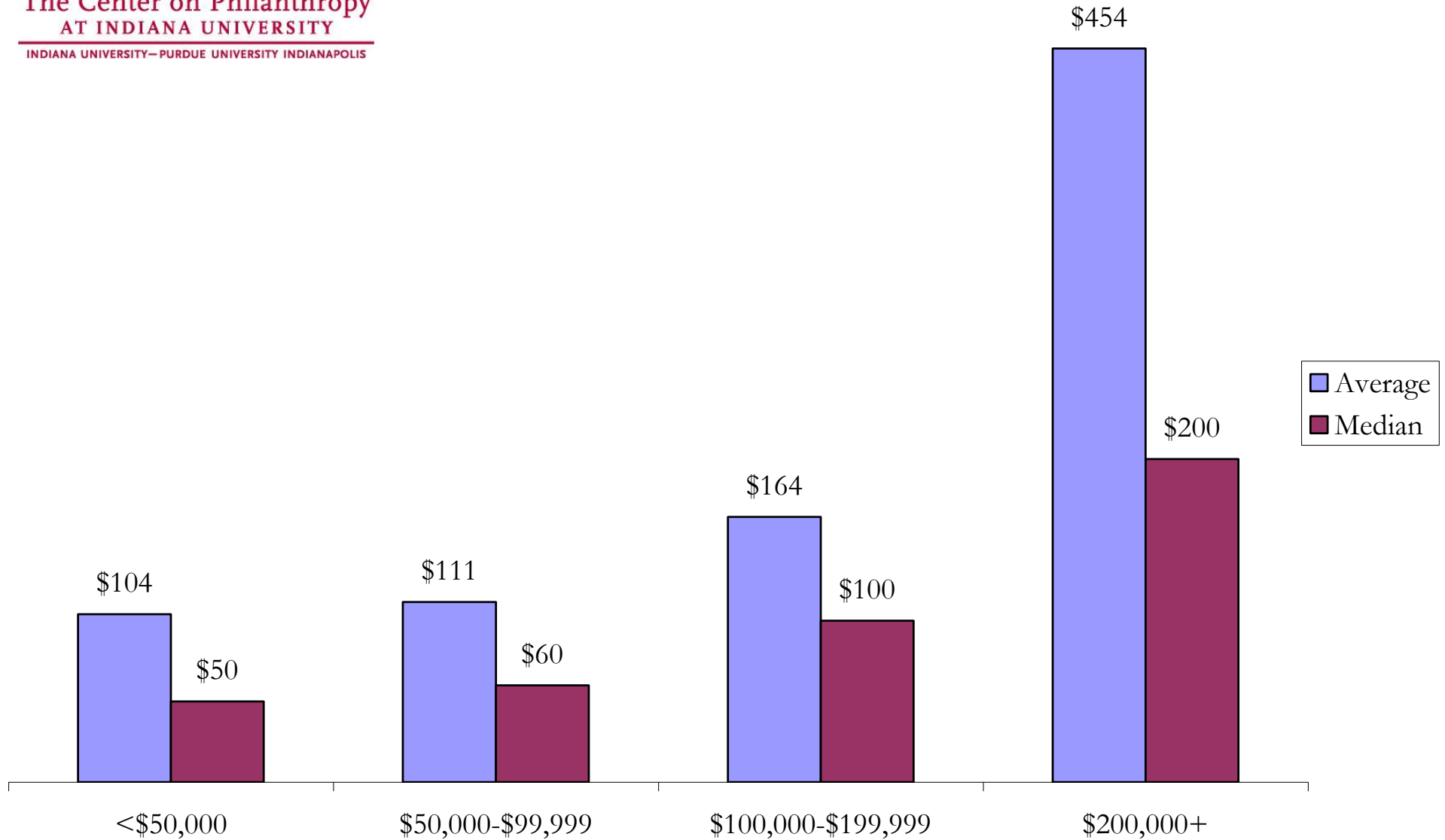
#### Sources:

- Katrina- The Conference Board, survey of 5,000 households
- Tsunami -*Center on Philanthropy Panel Study 2005* preliminary data
- September 11<sup>th</sup> – Center on Philanthropy, *America Gives 2001*

## How Donors Made Contributions for the Asian Tsunami Relief Efforts COPPS 2005 – Preliminary Data

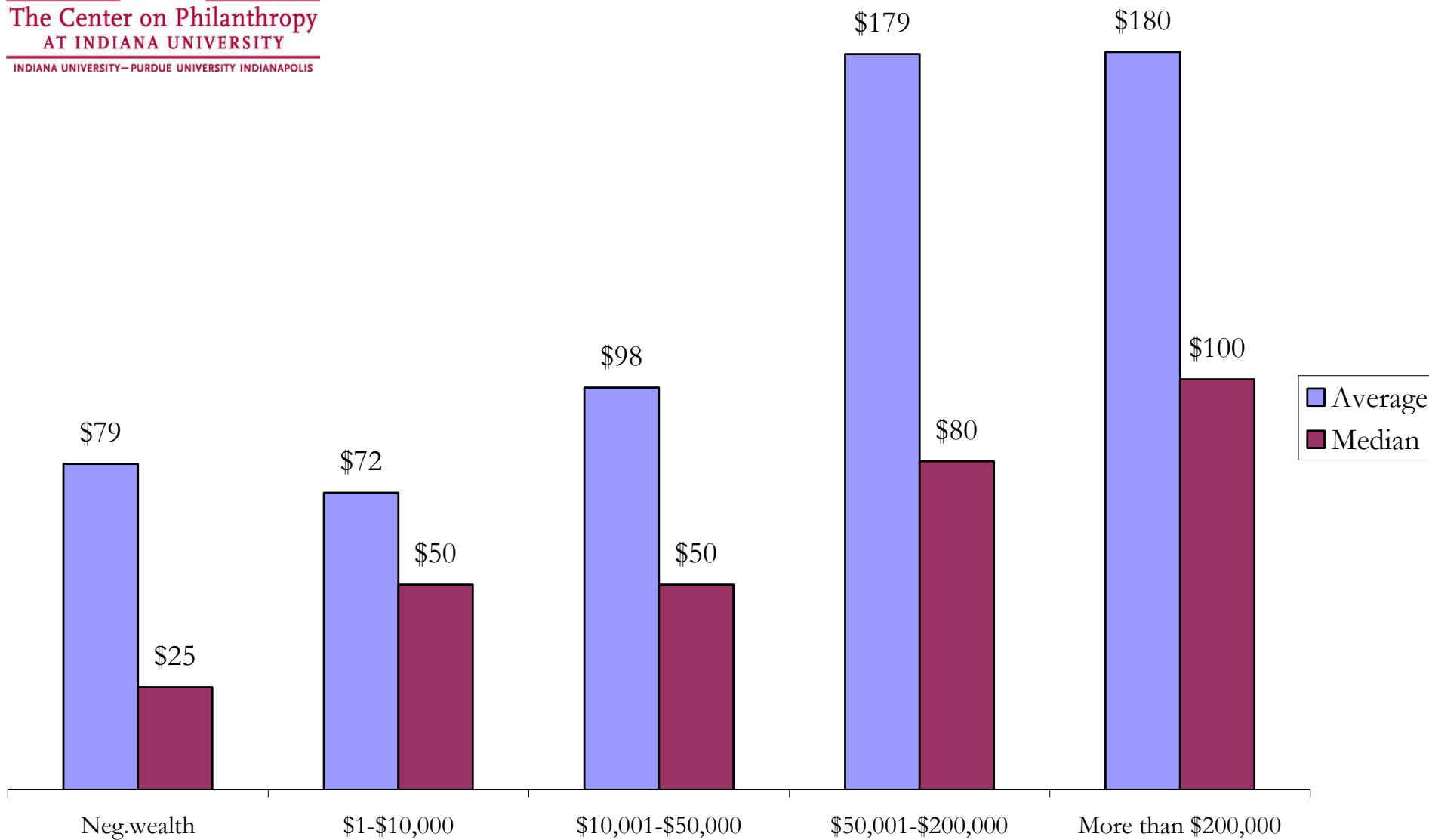


## Tsunami Giving by 2002 Household Income



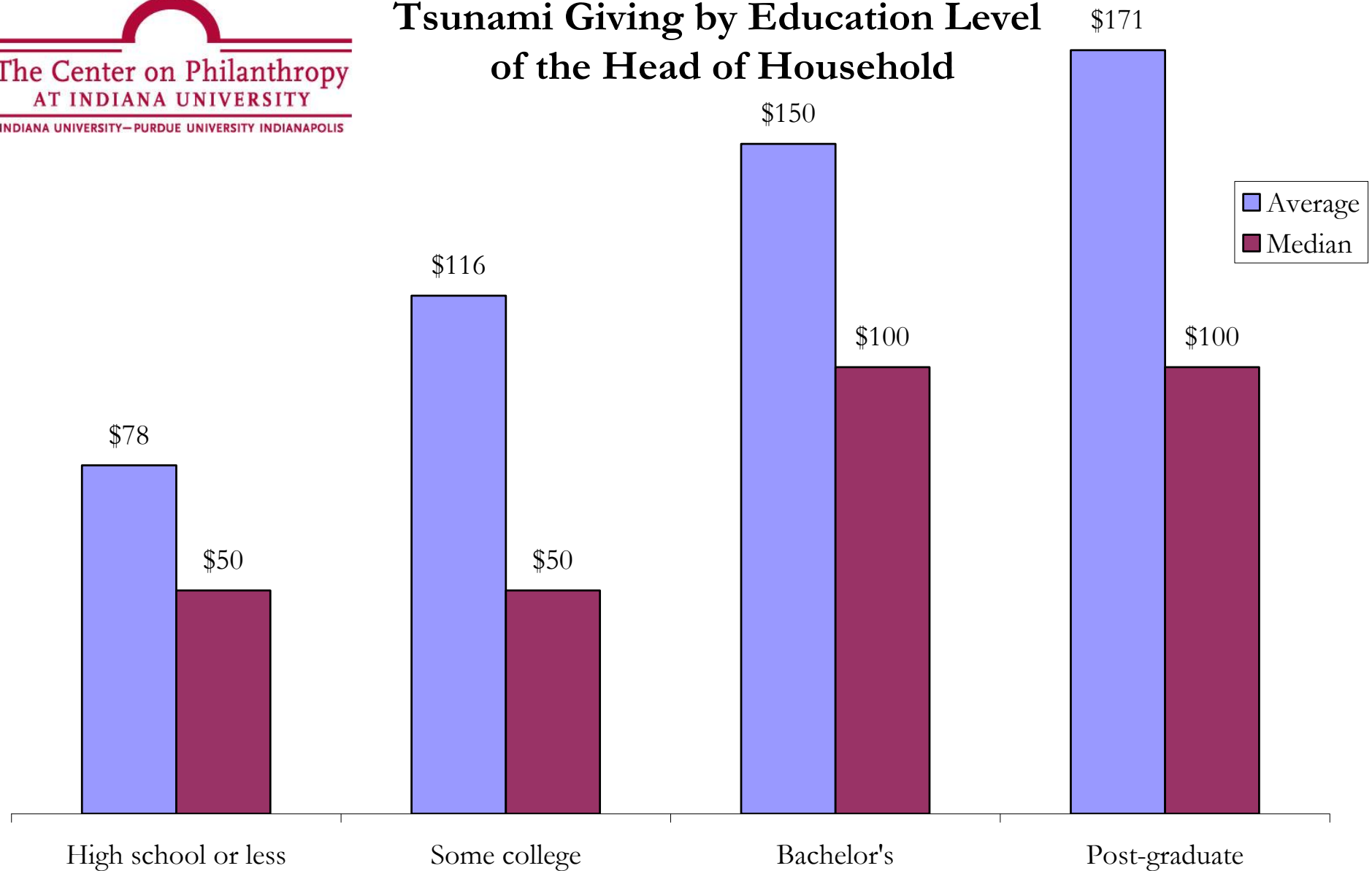
Source: 2005 Center on Philanthropy Panel Data (COPPS) - preliminary data

## Tsunami Giving by 2002 Wealth (not including house)



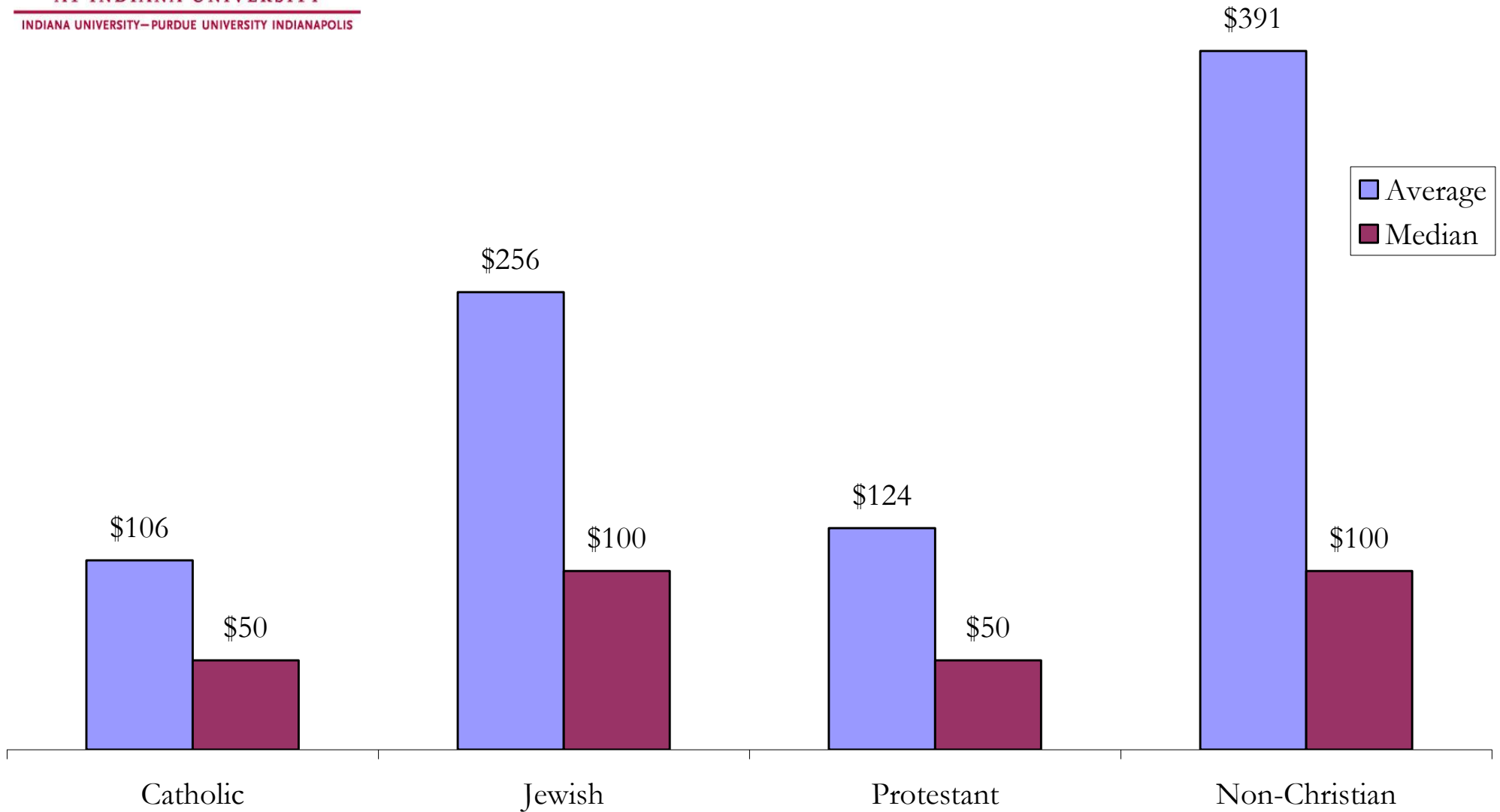
Source: 2005 Center on Philanthropy Panel Data (COPPS) - preliminary data

## Tsunami Giving by Education Level of the Head of Household



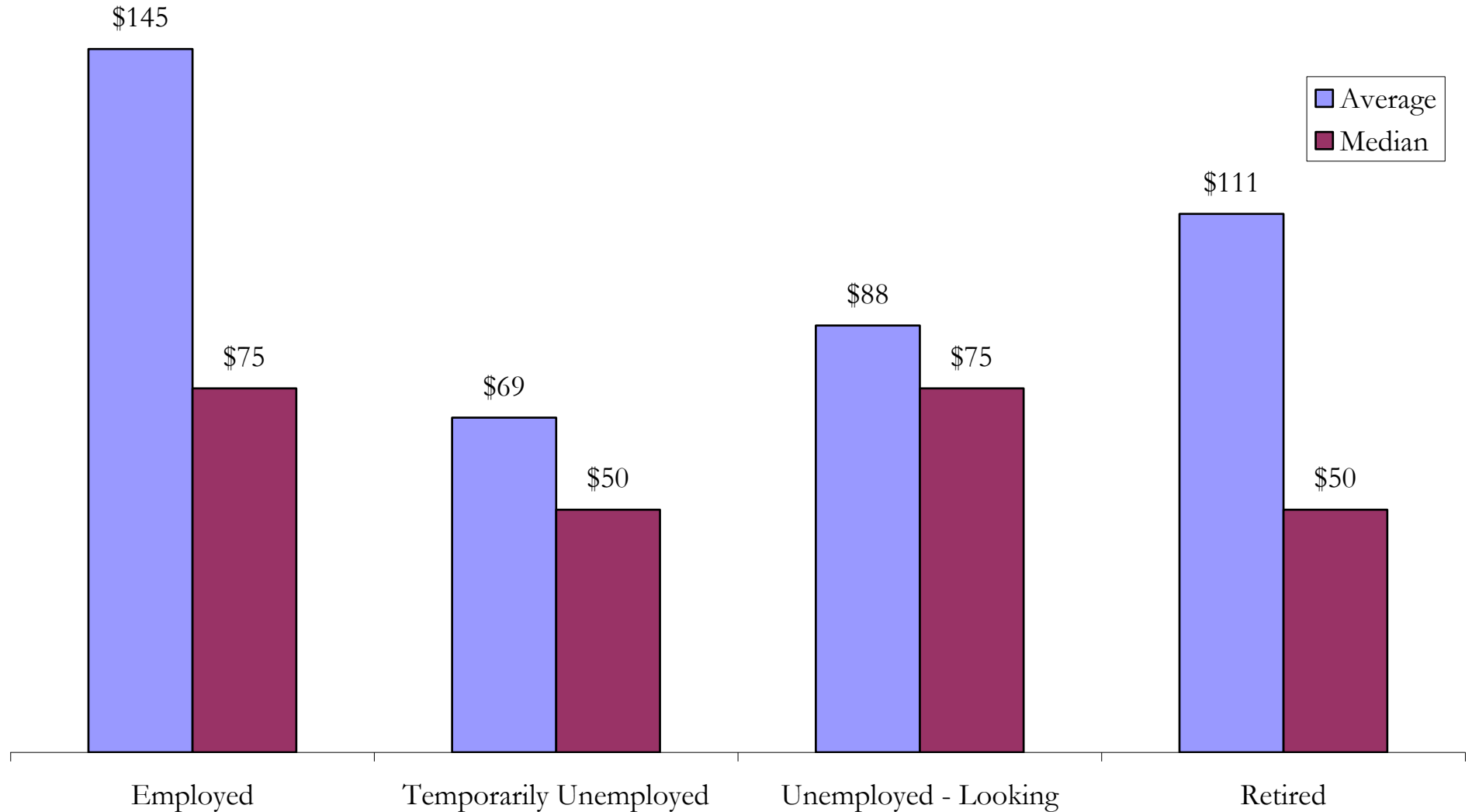
Source: 2005 Center on Philanthropy Panel Data (COPPS) - preliminary data

## Tsunami Giving by Religious Preference



Source: 2005 Center on Philanthropy Panel Data (COPPS) - preliminary data

## Tsunami Giving by Employment



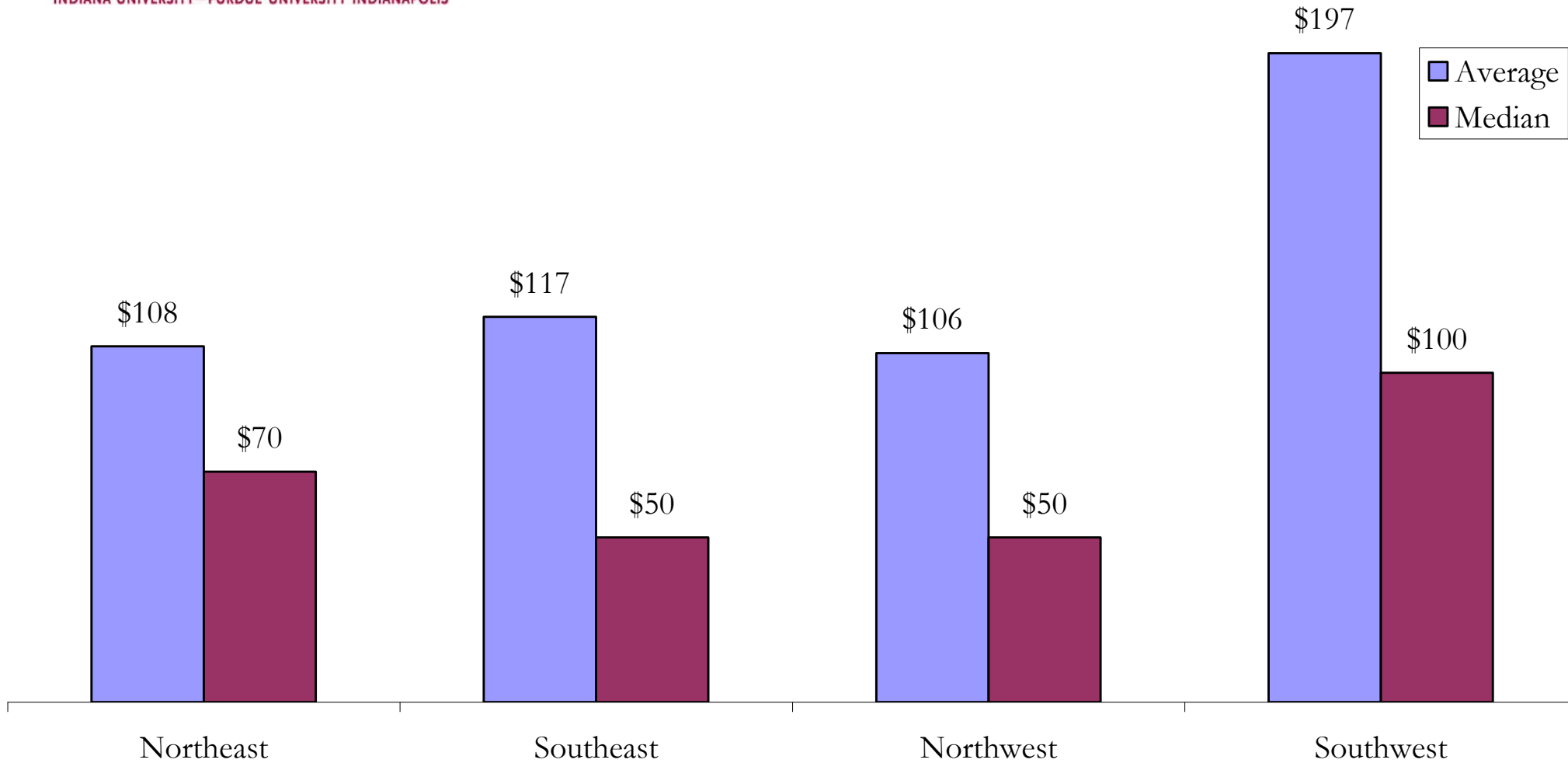
Source: 2005 Center on Philanthropy Panel Data (COPPS) - preliminary data

## Tsunami Giving by the Number of Children



Source: 2005 Center on Philanthropy Panel Data (COPPS) - preliminary data

## Tsunami Giving by Region of the Country



Source: 2005 Center on Philanthropy Panel Data (COPPS) - preliminary data

# Regression Analysis

Models (1) – (3) examine:

- explanatory variables on the amount given (Interval Regression), and
- the likelihood of giving (Probit) for relief efforts following the Asian Tsunami.

## Dependent Variable is Tsunami Giving

- **Model (1)** Interval Regression Model (Levels)
- **Model (2)** Log-Log Interval Regression Model
- **Model (3)** Probit Model

## Dependent Variable is Non-Disaster Giving

- **Model (4)** Probit Model
- **Model (5)** Log-Log Interval Regression

Models (4) and (5) examine:

- if giving for tsunami relief crowded out non-disaster giving.

Interval regressions were run, as opposed to Tobit regressions, because interval regressions allow a weight to be applied to the model. A family weight generated by the PSID is needed to make COPPS nationally representative.

# Characteristics of Disaster Givers

	Model (1) Interval Regression – Levels		Model (2) Interval Regression Log-Log		Model (3) Probit	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Income	.0007	***				
Wealth-no house	-0.0001					
Log Income			.93	***	.15	***
Log Positive Wealth			.28	***	.04	**
Log Neg. Wealth			-.27	***	-.04	***
Age	1.43	*	.01		.004	*
Single male	-90.99	***	-1.13	**	-.14	*
Married female	-84.89	**	-.42		.04	
Single female	-56.59	**	-.19		-.03	
Marriage & Gender – Unknown	-1554.17	***	-24.25	***		
Catholic	19.22		.52		.13	*
Jewish	186.77	**	2.35	***	.52	***
Other religions	67.93	*	.83	*	.2	*
No religion	-12.5		.06		.04	
Religion unknown	8.01		.06		.008	
Black	-17.29		.2		.06	
Latino	-32.47		-.26		-.13	
Race-others	84.7	*	1.18	*	.21	*
Race-unknown	65.85		1.31		.17	
Number of Children	24.11	**	.34	**	.07	**
Some college	120.05	***	1.34	***	.14	*
Bachelor's Degree	200.09	***	2.55	***	.39	***
Post Graduate	247.15	***	3.11	***	.5	***
Education Unknown	152.39	***	1.62	***	.25	**
Constant	-512.39	***	-18.19	***	-3.09	***
N	6126		6100		6346	

\*p<.05, \*\*p<.01, \*\*\*p<.001

# Preliminary Results

- Tsunami giving amounts increase with increases in income (Levels and Log-Log models). The likelihood of donating for Tsunami relief increases with increases in income (Probit).
- Mixed results with Tsunami giving amounts and wealth. In the log-log model, tsunami giving increases with increases in wealth and decreases as households have more debt. Wealth is not significant in model (1). This may be because negative and positive wealth was not separated in the levels model. The likelihood of donating for Tsunami relief increases with increases in wealth.
- Mixed results with Tsunami giving and age. In model (1) tsunami giving increases with increases in age of the head of the household. Age is not significant in model (2) the log-log model. In addition, the likelihood that a household donates increases with increases in age (Probit model).
- Single men are less likely to donate for Tsunami relief and give lower amounts than married men. Marital status combined with being female is not significant in the log-log or probit model. However, married females gave lower amounts for Tsunami relief than married men in the Levels model.
- Jewish households give significant more and are more likely to give than Protestants households. Catholic households are also more likely to give than Protestant households. Those practicing other religions such as Hinduism, Buddhism, or Islam also give more and are more likely to give than Protestant households.
- The number of children is also positively correlated with giving more and being more likely to donate for Tsunami relief.
- Increases in the educational attainment of the head of household are also correlated with increases in the likelihood and amount of giving for Tsunami relief.

- These results are more or less consistent with giving for non-disasters and, therefore, do not explain a ‘uniqueness’ about disaster relief givers.

## Does Giving For Disaster Relief Crowd Out Giving For Other Causes?

	Model (5) Probit		Model (6) Interval	
	Coef.	Sig.	Coef.	Sig.
Tsunami Giving	0.8027	***		
Log Tsunami Giving			0.2624	***
Log Total Giving	0.1818	***	0.7028	***
Log Income	0.1488	***	0.4720	***
Log Positive Wealth	0.9578	***	0.2152	***
Log Neg. Wealth	-0.0466	***	-0.2021	***
Age	-0.0002		-0.0067	
Single male	-0.1743	**	-0.6934	***
Single female	-0.0202		-0.0811	
Some College	0.2072	***	0.7775	***
Bachelor's Degree	0.4235	***	1.0176	***
Post Graduate	0.1756		0.6858	**
Education Unknown	0.1050		0.4016	
Constant	-2.6376	***	-7.067	***
N	6346		6100	

\*p<.05, \*\*p<.01, \*\*\*p<.001

## Preliminary Results

- Tsunami giving had a positive effect on non-disaster giving suggesting that Tsunami giving did not crowd out giving to other causes.
- Not only did Tsunami giving increase the amount given for non-disaster causes, but also the likelihood of donating to other causes.
- This model is preliminary and has serious limitations including endogeneity and simultaneity. Neither is addressed in the model.
- Will re-address this question when we have the full 2005 COPPS data later this year.