

# LIGO Public Outreach

## June 2008



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LIGO Hanford Observatory*

# Today's Talk

- Outreach Program Mission and Structure
- Current Directions
- Recent Milestones
- Performance Indicators
- Challenges



# Mission and Structure

- **Leverage the scale, technology and science backdrop of the Observatories to create rich visitor experiences**
  - » Student field trips integrate hands-on standards-based activities with explorations of LIGO science and technology
  - » Teacher professional development programs emphasize science inquiry along with key LIGO science concepts
  - » Programs for the general public address a variety of interests and ages
  - » Site outreach focuses heavily on a local/regional emphasis; capacity exists for participation in national outreach endeavors
  - » Each site receives outreach guidance from a Local Educator Network
  - » Outreach programs are built on partnerships
  - » The Observatories are important parts of the institutional fabric of their communities





# Current Directions

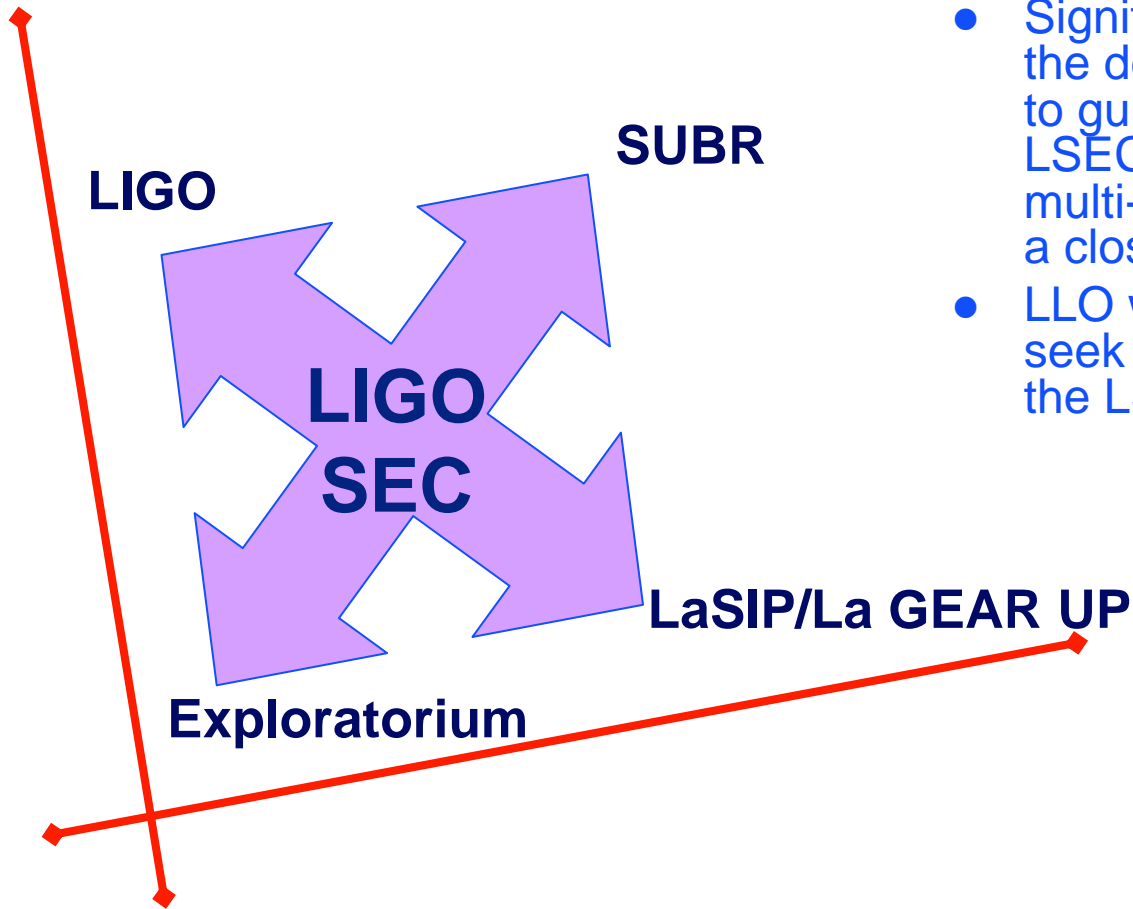
- LLO: Continuing to hone the delivery of excellent field trip and professional development programs in a high-volume high-demand environment
- Continuing to incorporate educational research into utilization of the LSEC



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# LLO Directions



- Significant effort has gone into the development of a road map to guide the next phase of the LSEC now that the original multi-partner grant is drawing to a close
- LLO will work with partners to seek continued NSF support for the LSEC collaboration



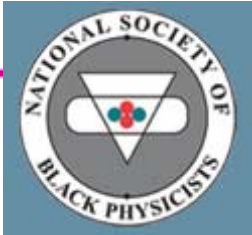
# LHO Directions

- Expanding LIGO's influence through partnerships that continue to bring school children to the site and place LIGO in schools and classrooms across the region
- Extending the reach of LIGO's interactions with teachers through the southeastern WA Math Science Partnership
- Maximizing the impact of outreach resources through careful, purposeful planning and engagement





# LIGO Lab Outreach Directions



- New Diversity Committee within the Lab seeks to address diversity challenges
- The Observatories are implementing programs to increase LIGO's visibility among local underrepresented college students
- The LIGO undergraduate research program (REU/SURF) continues to provide excellent research experiences for students



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# LSC Outreach Directions

- The new LSC outreach working group is chaired by Marco Cavaglia, University of Mississippi
- Front-burner projects include participation in the June meeting of the Astronomical Society of the Pacific and in the 2009 World Science Festival in New York City. Additional projects will be considered for the 2009 International Year of Astronomy.





# Recent Outreach Milestones

- Livingston's Science Education Center booked 100% of all available field trip dates during the spring of 2008. The SEC served 129 school visits between 1/07 and 5/08.
- The SEC served 34 teacher professional development programs between 1/07 and 5/08, 14 of which were Math Science Partnerships.
- LLO certified 14 Southern University docents in 2007. 15 more are in training for certification during 2008.
- LLO and LHO now host summer teacher interns through NSF RET funds, a supplement to LIGO's REU award.



# LHO Milestones

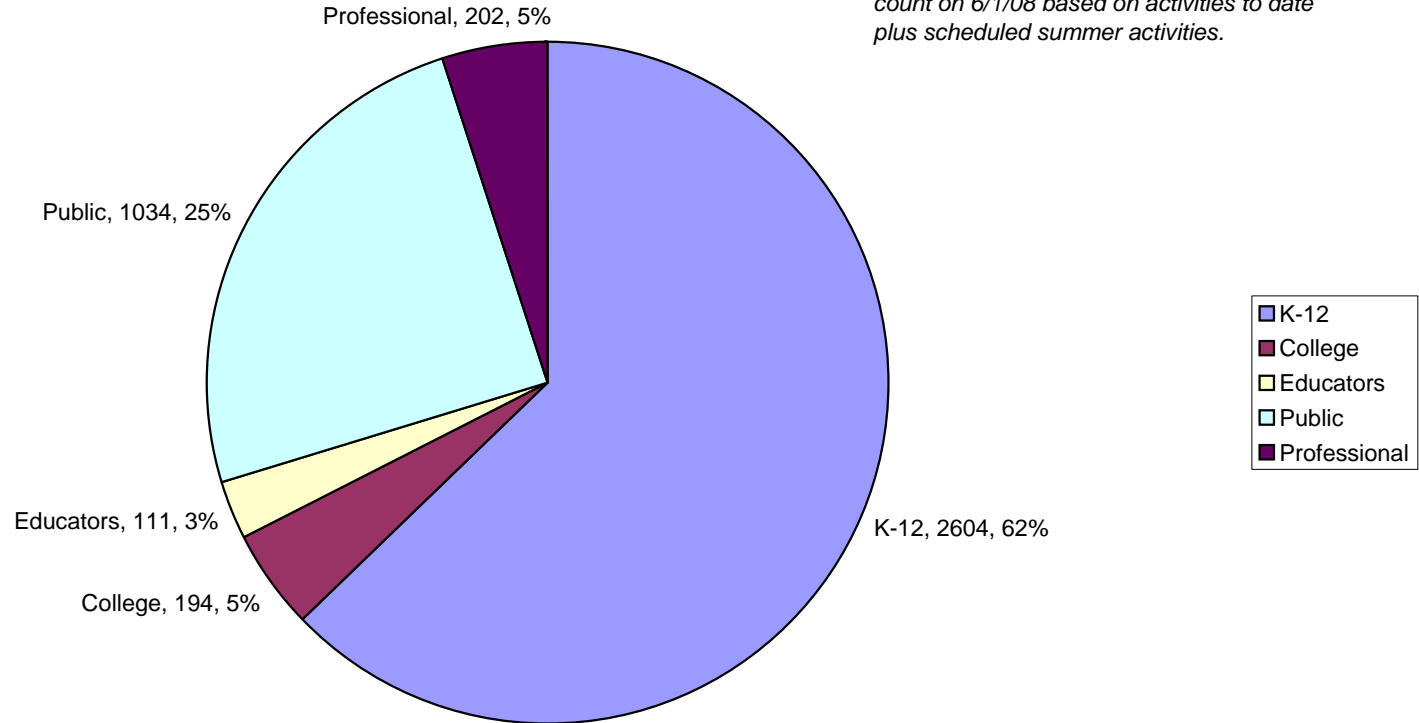
- LHO on-site visitors will exceed 4000 for the year 9/07 to 8/08. Off-site outreach contacts will exceed 5500.
- LHO Head and EOC are co-authors on a peer-reviewed publication in the science education literature. Lead author is Professor Judy Morrison of WSU Tri-Cities.
- LHO's involvement in the regional educational community continues to increase as a result of stronger relationships with key institutions and individuals.



# Performance Indicators

9/07 - 8/08 LHO Visitor Count

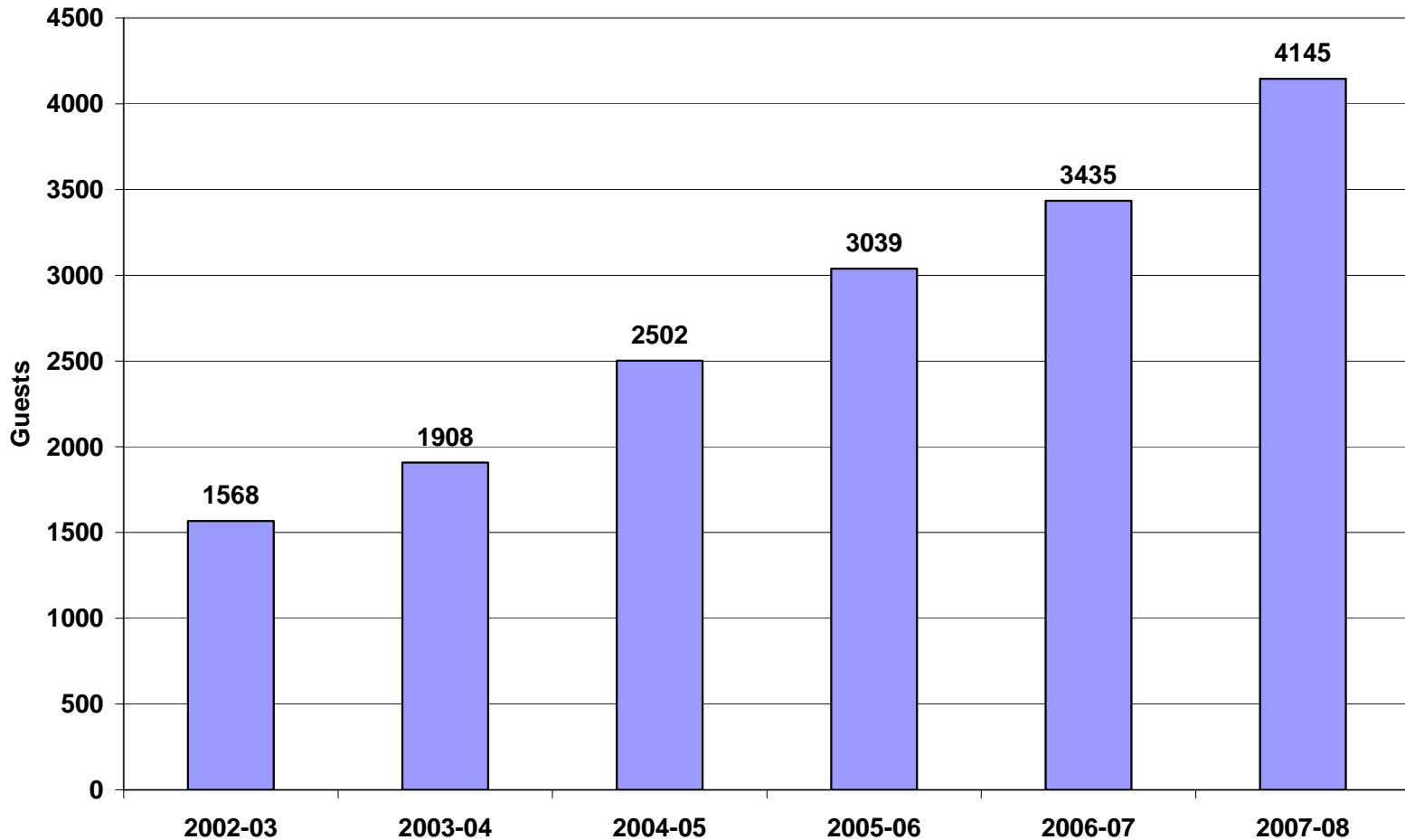
Total = 4137. This is a projected visitor count on 6/1/08 based on activities to date plus scheduled summer activities.





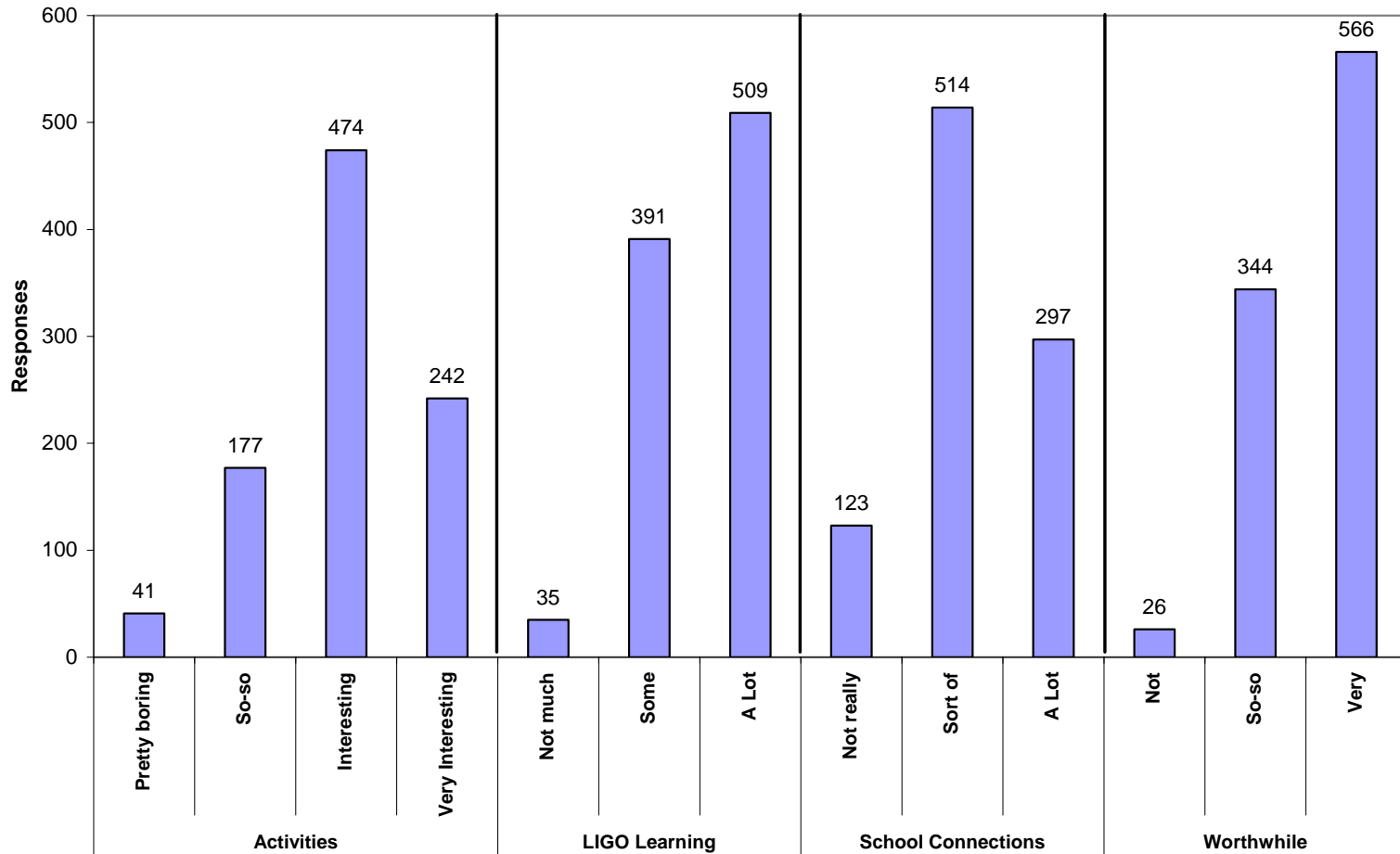
# LHO Visitor Growth

LHO Annual On-site Outreach Attendance, 2002-08



# Results of LHO Field Trip Surveys in the Current Year

LHO School Visit Survey Results, 2007-08



# Challenges

- Make the best possible investments of outreach resources. Continue to grow in quality and quantity of service while retaining the flexibility to contribute to national and international outreach development efforts.
- Assessment/Evaluation: Improve our ability to gauge the success of outreach efforts over the long term.
- Vigorously pursue resources outside of LIGO operating funds to increase outreach capacity.

