

Audience Reach of Scientific Data Visualizations in Planetarium-Screened Films

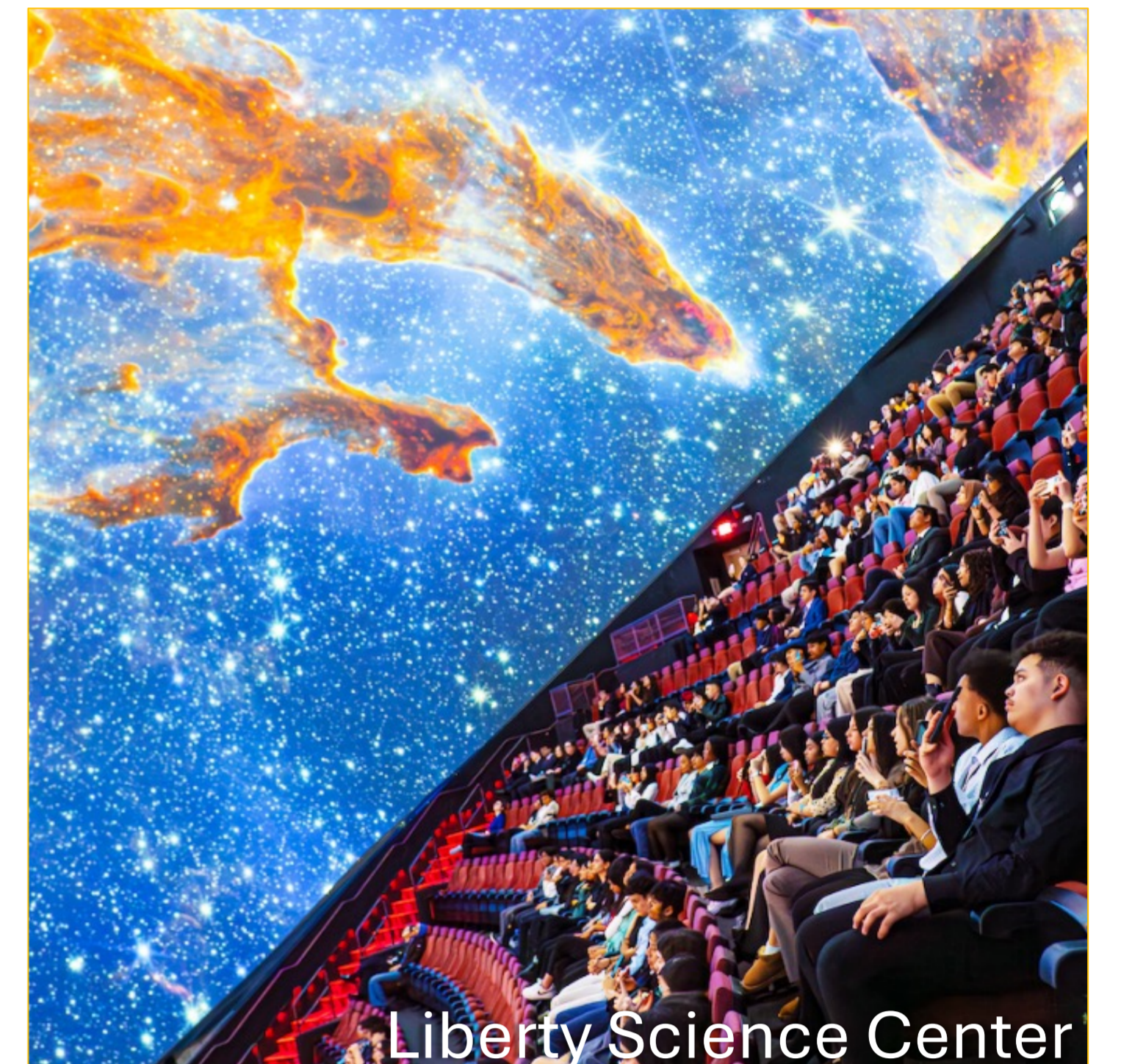
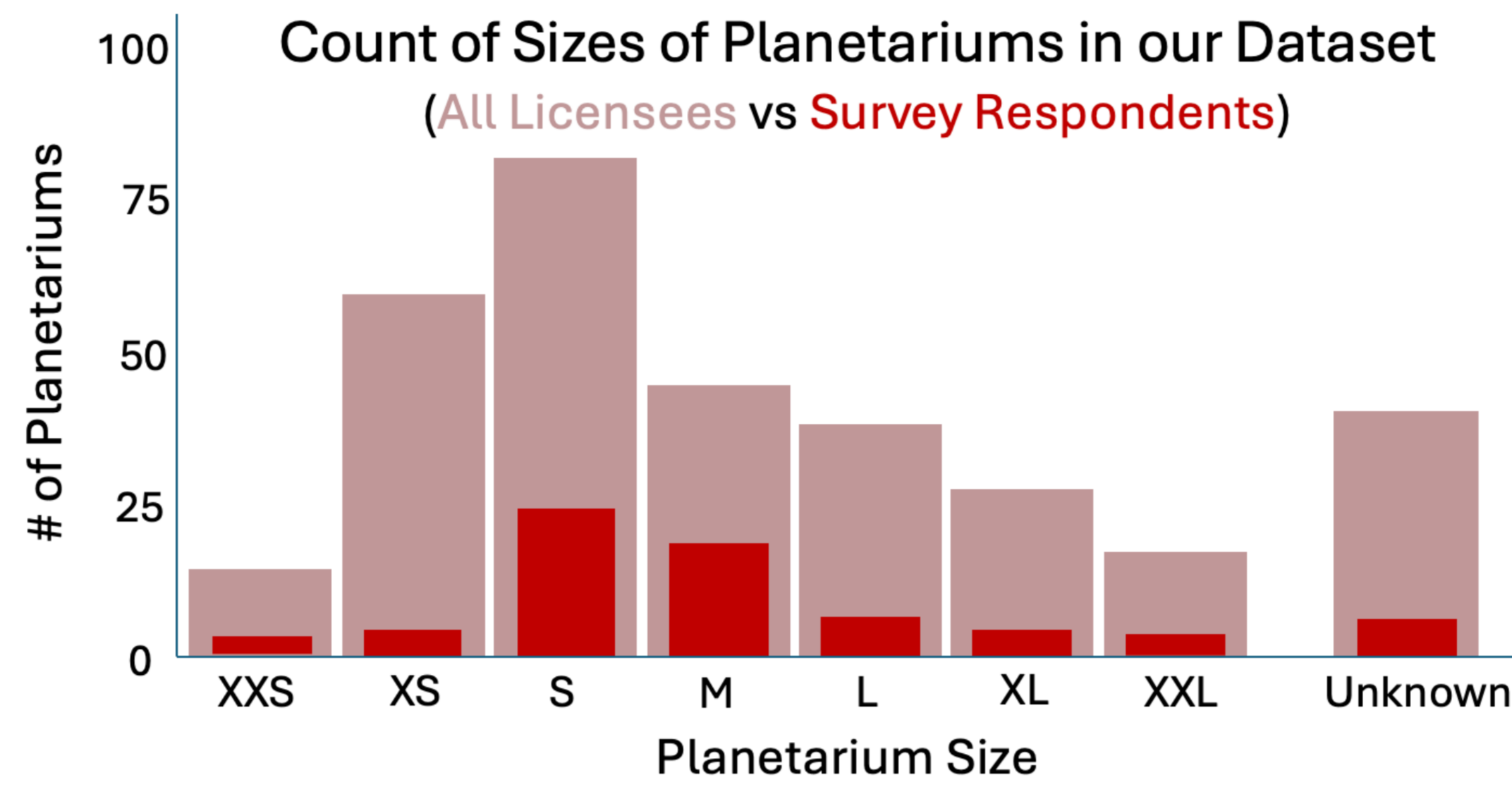
Kalina Borkiewicz, Eric Jensen, Yiwen Miao, Stuart Levy, J.P. Naiman, Jeff Carpenter, Katherine E. Isaacs

BACKGROUND



Small Planetarium

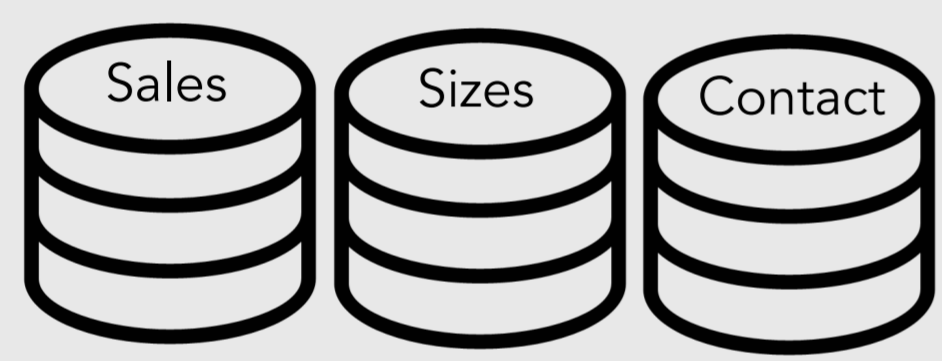
What is the impact of a visualization in a planetarium film? Large, well-funded planetariums may track ticket sales, but small planetariums lack standardized metrics to track audiences. We sent surveys to collect data and estimates.



Large Planetarium

Cinematic scientific visualizations in planetarium films have **broad impact**, reaching **millions of people**.

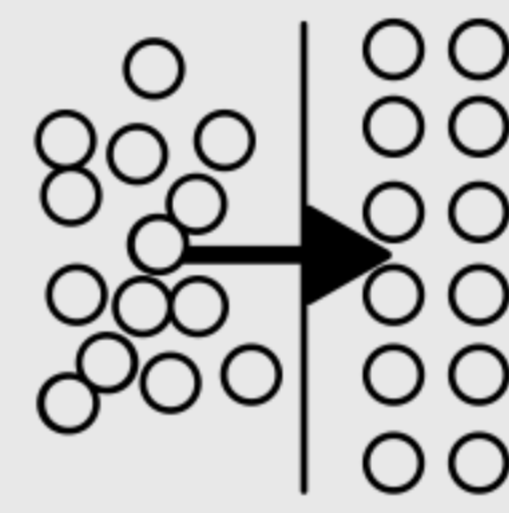
METHOD



1. Combine databases



2. Send survey



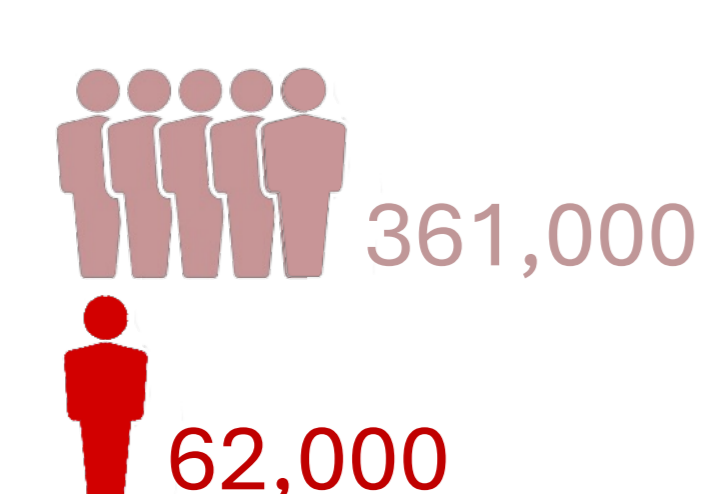
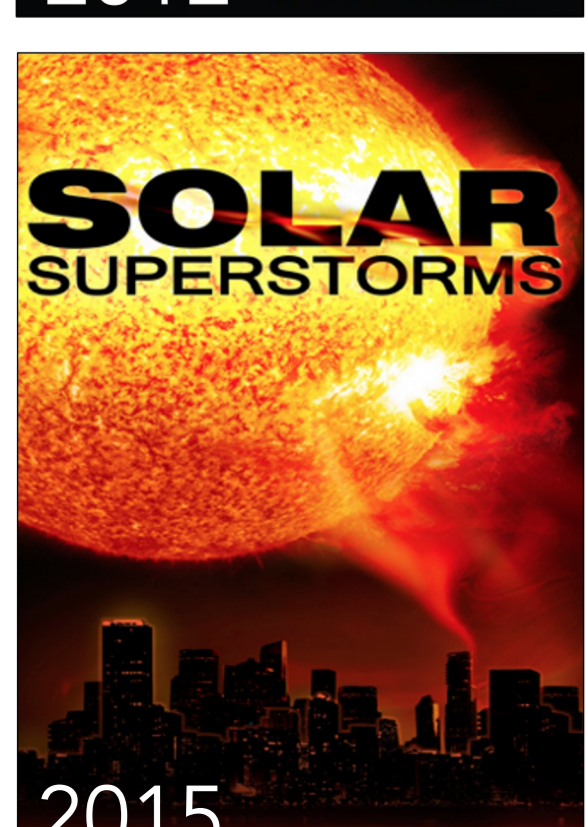
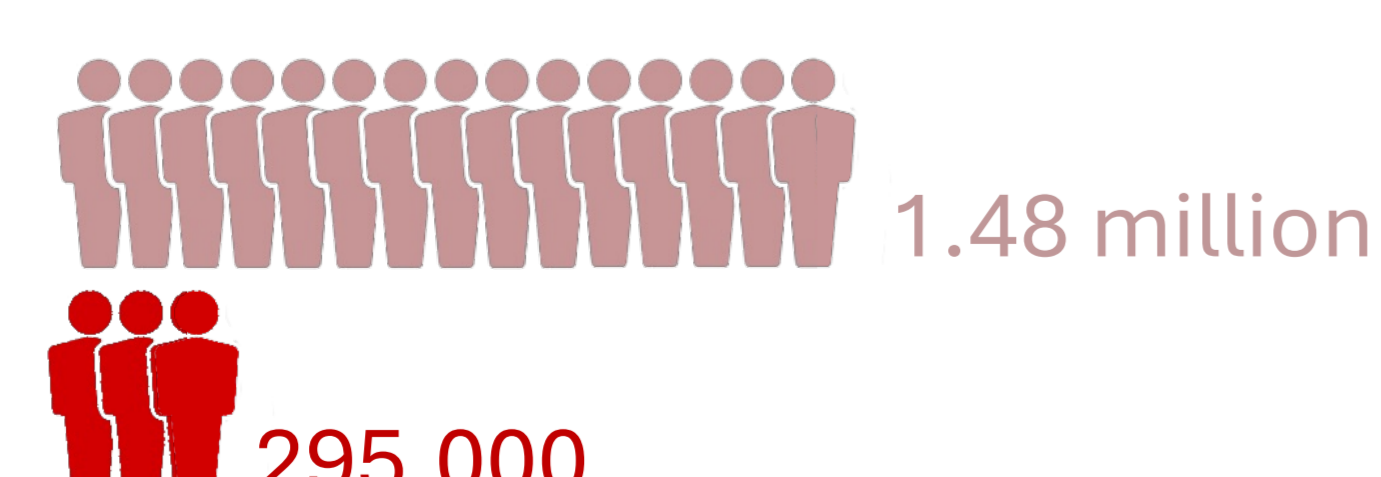
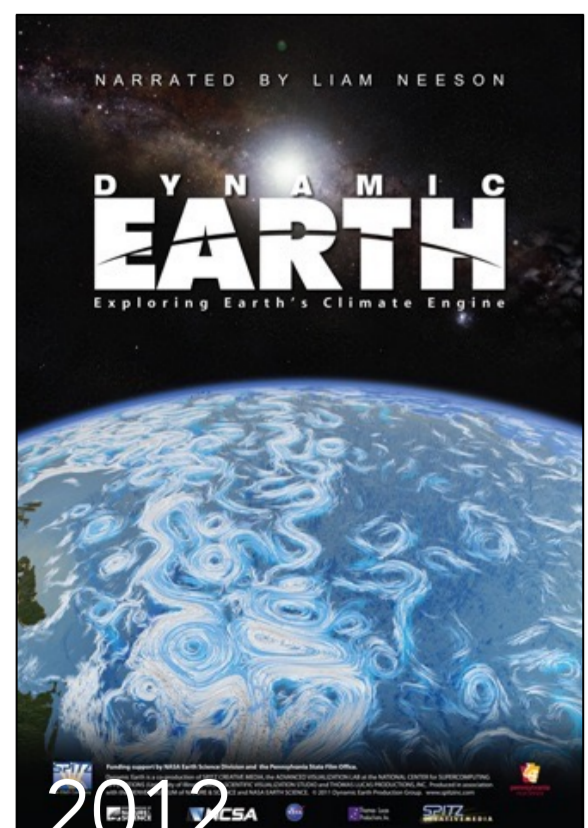
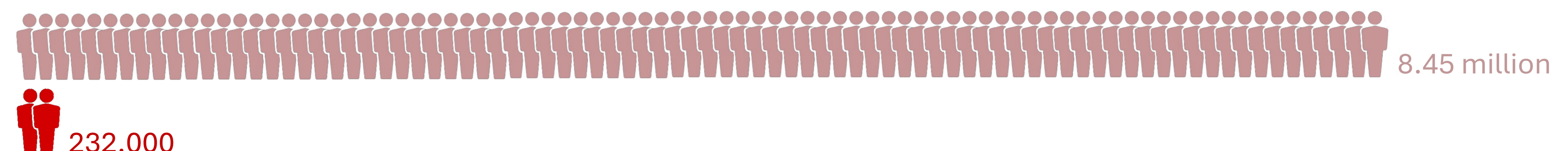
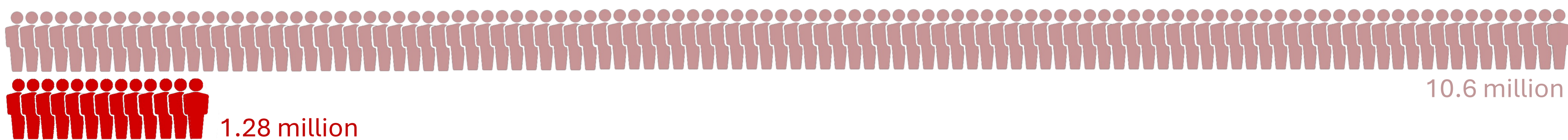
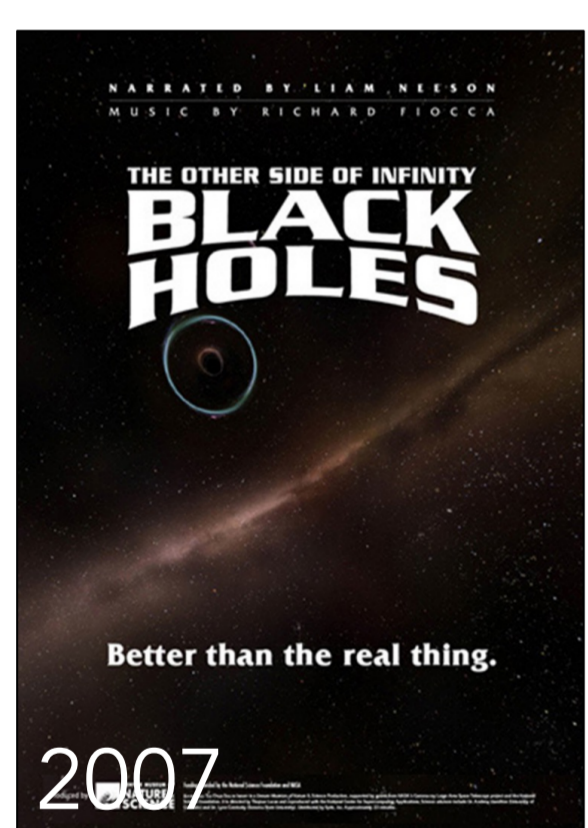
3. Code responses



4. Estimate total reach

RESULTS

Minimum **Reported Viewers** and **Expected Viewers** over 10 years
( = 100,000 people)



We report survey data and total viewership estimates, derived using planetariums of similar sizes and assuming a conservative 10-year film lifespan. The actual lifespan may be over 50 years, as shown in the licensing data on the right.

Age of Film by End of License
(at individual planetariums)

