



PVS Membership Study: Status Update

Jim Thompson
PVS Strategic Planning Chair

December 4, 2007

**FOR BOARD DISCUSSION
PURPOSES ONLY**

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Purpose

- Background: Recommendation from the November 14th BOD meeting:
 - Tell the story of how PVS serves the needs of the community
 - Provides the Executive Director and Board members information to engage key stakeholders of aquatic facilities and government bodies
 - Document PVS needs for aquatic facilities
 - Document benefits (impacts) of meeting (failing to meet) PVS needs
- Today's discussion provides status of the work to analyze PVS membership
- Looking BOD members to answer
 - Is this information useful, is it actionable?
 - Can we use the information to tell the PVS story?
 - What questions do you have on the analysis?
 - What directions would you like to see the analysis go?

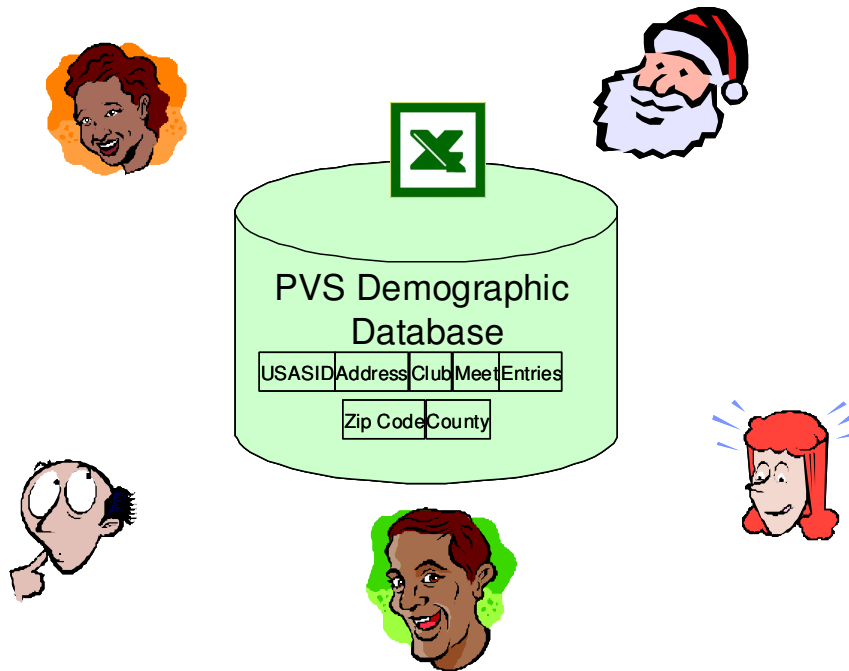


Today's Discussion

- Sample Analysis
 - Demographics
 - Value to the Community
- Discussion on the Analysis
- Next Steps
- Appendix
 - Approach for Analysis
 - Meets Loaded For Analysis
 - Sample Census Data
 - Other Activities



Sample Analysis



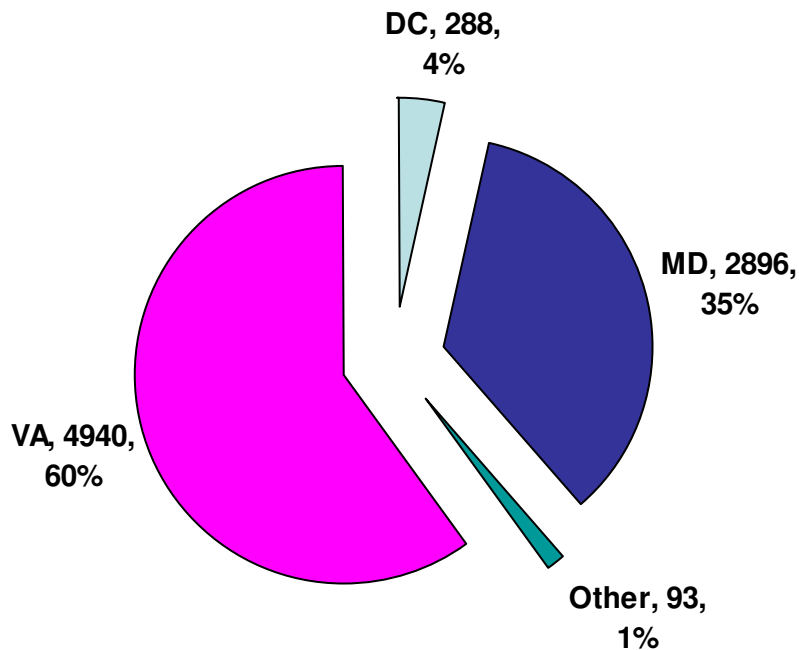
**Same Data -
Different Perspectives**

- Current work is to test drive the analysis by prototyping on a subset of data
 - 2006-07 PVS Registration
 - Meets from Oct & Nov 2006
- Terminology
 - “Illustrative Data”: fictitious data to illustrate a concept
 - “Sample Data”: subset of actual data used to validate analysis prior to full volume analysis.
 - “Illustrative” and “Sample” data are not suitable for drawing conclusions



Demographics PVS Membership

**PVS Athlete Membership (2006-07 Season)
State Residence Distribution**



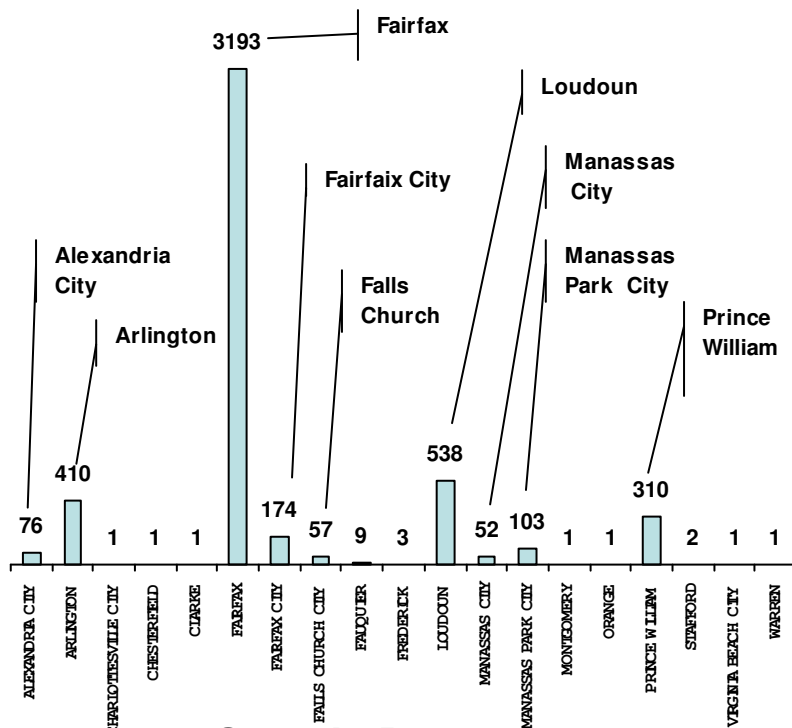
**Sample Data
For Discussion Purposes Only**

- Based on PVS Registration Data for 2006-07 Season
- Total Number of Athletes: 8,217
- Pie chart shows number and percentage of athletes with mailing address in a State
- “Other” category reflects athletes with mailing addresses outside of the DC, MD and VA area.
 - Seasonal athletes
 - Athletes who were part of PVS in 2006-07 but transferred out
- Issues:
 - May not be possible to reconcile with other reports, such as the Registrar Report to the HOD in May 2007 (lack of history on addresses).



Demographics PVS Membership

**PVS Athlete Membership (2006-07)
Distribution By County For VA**



Sample Data

For Discussion Purposes Only

- Based on zip code, county of residence break down for VA
- Bulk of swimmers from Fairfax County
- Next largest group is from Loudoun County
- Issues:
 - Need to research missing 4 athletes from this view compared to State view

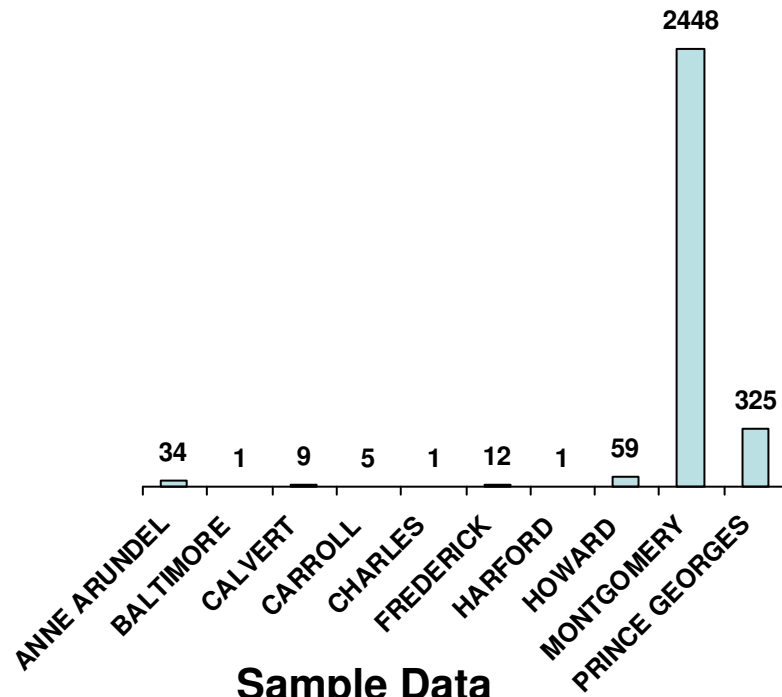
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Demographics PVS Membership

PVS Athlete Membership (2006-07)
Distribution By County For MD



- Based on zip code, county of residence break down for MD
- Total number reconciles with the State view

Sample Data

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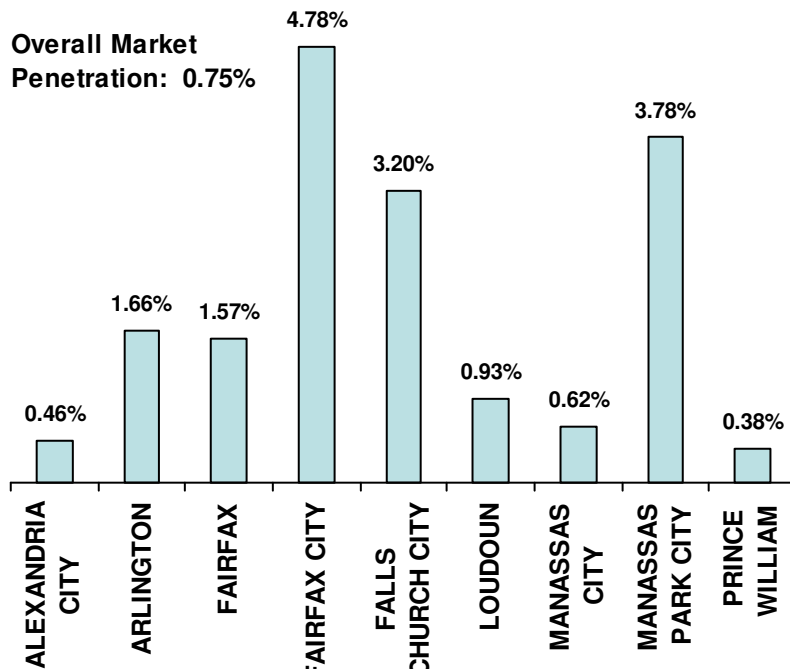
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Demographics

PVS Membership

**PVS Athlete Market Penetration
For VA**



Sample Data

For Discussion Purposes Only

- Athlete market penetration: percentage that PVS athletes represent to pertinent population subset in the county.
- Obtained State related Census data
 - <http://www.census.gov/popest/datasets.html>
 - 2006 population estimate for ages 5 thru 19 (See Appendix for sample)
- While Fairfax County has the most in raw number of athletes (3,193), it is fifth in terms of market penetration percentage (1.57%). Fairfax City is has the most penetration with 4.78% on 174 athletes.
- If Fairfax County achieved the same level of penetration as Fairfax City, then about 6,500 athletes will be added to the PVS roster, bringing PVS to over 14,000 athletes.
- Consideration: Unknown if the method used by Census Bureau and the “open source” database to determine county is the same.

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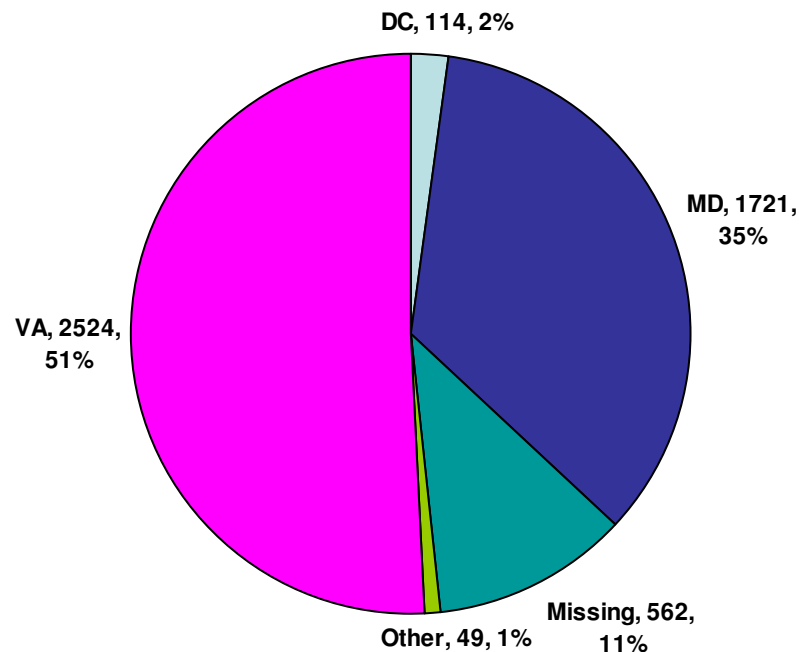
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Demographics

Meet Participation

**Meet Participants
State Residence Distribution**

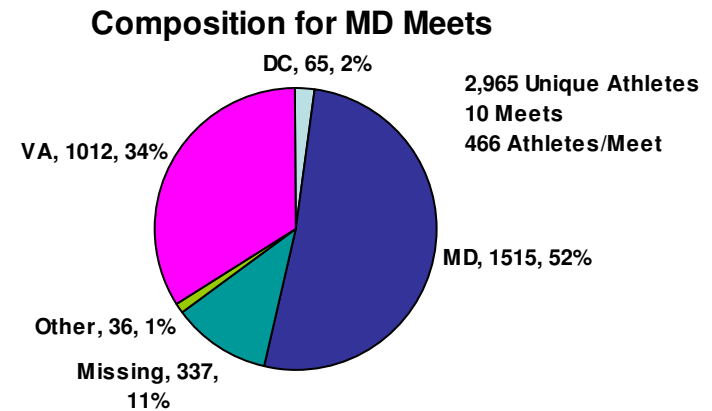
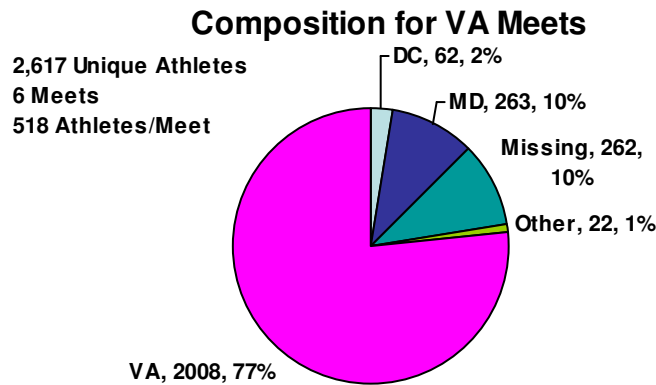


**Sample Data
For Discussion Purposes Only**

- Source: Hy-Tek MM data from 17 Meets in Oct & Nov 2006 (See Appendix for list of meets)
- Total number of athletes who participated in a meet: 4,970
 - Athletes are counted once regardless of the number of meets entered (“Unique Athletes”).
- “Missing” category reflects athletes detected in Hy-Tek Meet Manager (MM) database who were not in PVS registration data, i.e., athletes from other LSCs.
 - MM does not contain address related data for athletes



Demographics Meet Participation



Sample Data For Discussion Purposes Only

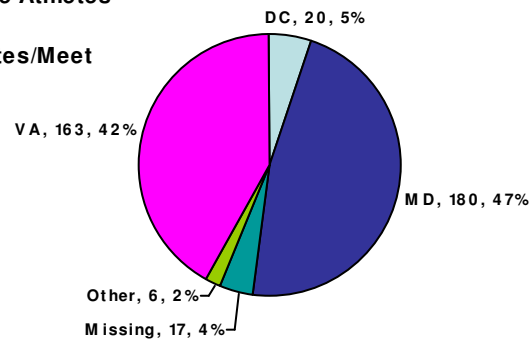
- If the above holds for a whole season
 - VA Meets have approximately 11% more participants
 - Is there significance to the difference of participation percentage of VA athletes in MD meets vs MD athletes in VA meets?
 - Are MD clubs tending to pick meets close to home?
 - Are facilities restrictions hampering our participation mix and VA demand overflowing into MD?
 - As an association should we care if there is a difference in meet composition based on location?
- Does the composition change based on type of meet: Open vs. Invitational vs. Championship?



Demographics Meet Participation

Meet Composition of DC Meets

386 Unique Athletes
1 Meets
386 Athletes/Meet



**Sample Data
For Discussion Purposes Only**

- Based on a single meet held in DC



Demographics Meet Participation



- How does meet participation mix look if we eliminate non-PVS athletes (“Missing” category)?
- Overall meet participation percentage is similar to registered athletes.
- Through October 2006, about 53 percent of PVS registered athletes participated in a meet.



Value to the Community

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Category	Source	
Facilities Benefit		
Pool Rental Fees– Swim Teams	PVS Teams	
Pool Rental Fees – Swim Meets (PVS Schedule)	PVS Budget Category 5200	\$114,544
Pool Rental Fees – Dual/Tri-Meets	Hosting Team	
Total Facilities Benefits for PVS activities		\$114,544
Local Economy Benefits		
Meet Hospitality expenses	PVS Budget Category 5200, Hosting PVS Teams	\$11,516
Meet Awards	Hosting PVS Teams	
Meet Memorabilia		
Hotel expenses visiting teams coming to PVS		
Meal expenses visiting teams coming to PVS		
Swim team equipment expenses (swim suit, practice equipment, caps, t-shirts) (see example)	PVS Teams	\$299,831
Charity Fund raisers		
Total revenue generated by PVS activities		\$311,347
Local Employment		
Coaching Salaries – Full time (Only need in aggregate for all of PVS)	PVS Teams	
Coaching Salaries – Part time (Only need in aggregate for all of PVS)	PVS Teams	
Total Employment benefits for PVS activities		\$0
Total Economic Benefit of PVS activities		\$425,891



Value to the Community

FOR INTERNAL DISCUSSION PURPOSES ONLY

	2006-2007 Registration Data	60% Swimmers Purchasing	Average Suit Cost	Suit Revenue	Tax Revenue
Boys	3662	2197	\$35	\$115,353	\$5,768
Girls	4555	2733	\$45	\$184,478	\$9,224
Total				\$299,831	\$14,992

Assumptions

- Tax Rate: 5.00% (Local tax rate.)
- % swimmers purchasing in a year: 60%
- Avg # of suits purchased in a year: 1.5 (Average number of suits bought in a season (practice suit(s), competition suits(s)). Percent of swimmers who purchase suits in a season.)

[Return to Categories](#)

Illustrative Data



Value to the Community

- Possible conclusion regarding economic benefit to the community
 - Assume \$400K per year
 - Implies over 5 year period \$2M of PVS generated economic activity
 - Commentary: In the “grand scheme of things”, PVS economic activity will not make or break the community. However, we still need to understand it and communicate it.
- Other benefits
 - Charitable donations
 - Food Drives
 - Toys for Tots
 - Athletic scholarships
 - Life’s Lessons
 - Instilling work ethic
 - Constructive use of time for membership



Discussion on the Analysis

- Is this type of analysis useful? Can we use the
 - Demographic analysis?
 - Community value analysis?
- Who decides how we use the analyses and what message to communicate to what audience?
- If market penetration analysis is deemed useful, then geocoding individual addresses by street address will ensure consistent matching with Census data. Should we undertake individual address geocoding?
- How should we account for the “Other” category, i.e., “PVS athletes” with mailing addresses outside of DC, MD or VA?
- How should we account for the “Missing” category, i.e., athletes (non-PVS LSC) picked up from the Hy-Tek Meet Manager database that do not contain address information?
- Do we want to benchmark our market penetration against other LSCs?



Discussion on the Analysis

- Some desired information is confidential, e.g., coach salaries, sales revenue. What policies should be in place to handle collection (should we even collect the data?) and reporting?
 - For example, confidential information is reported only in aggregate form.
- Implications:
 - Data disclosure policy. What how much and what data do we disclose to justify our analysis?
 - If extract of PVS registration data from USA Swimming only contains current address, then geographic analysis of historical data may have data quality issues. Any issues are probably low in number due to inertia of changing residence.
 - Consider defined standards for Hy-tek meet set parameters, e.g., location and header parameters, to facilitate data collection.
- In addition to trend analysis, historical data may allow modelling of meet demand. For example, regression analysis could lead to a planning aid for team assignments at PVS Open meets that minimize or eliminate last minute reshuffling of teams to balance entries.



Next Steps

- Load full meet data for 2006-07 Season
- Generate analysis
- Load earlier years' registration and meet data
- Conduct trend analysis
- Incorporate Census data into the PVS Demographic Database



Appendix

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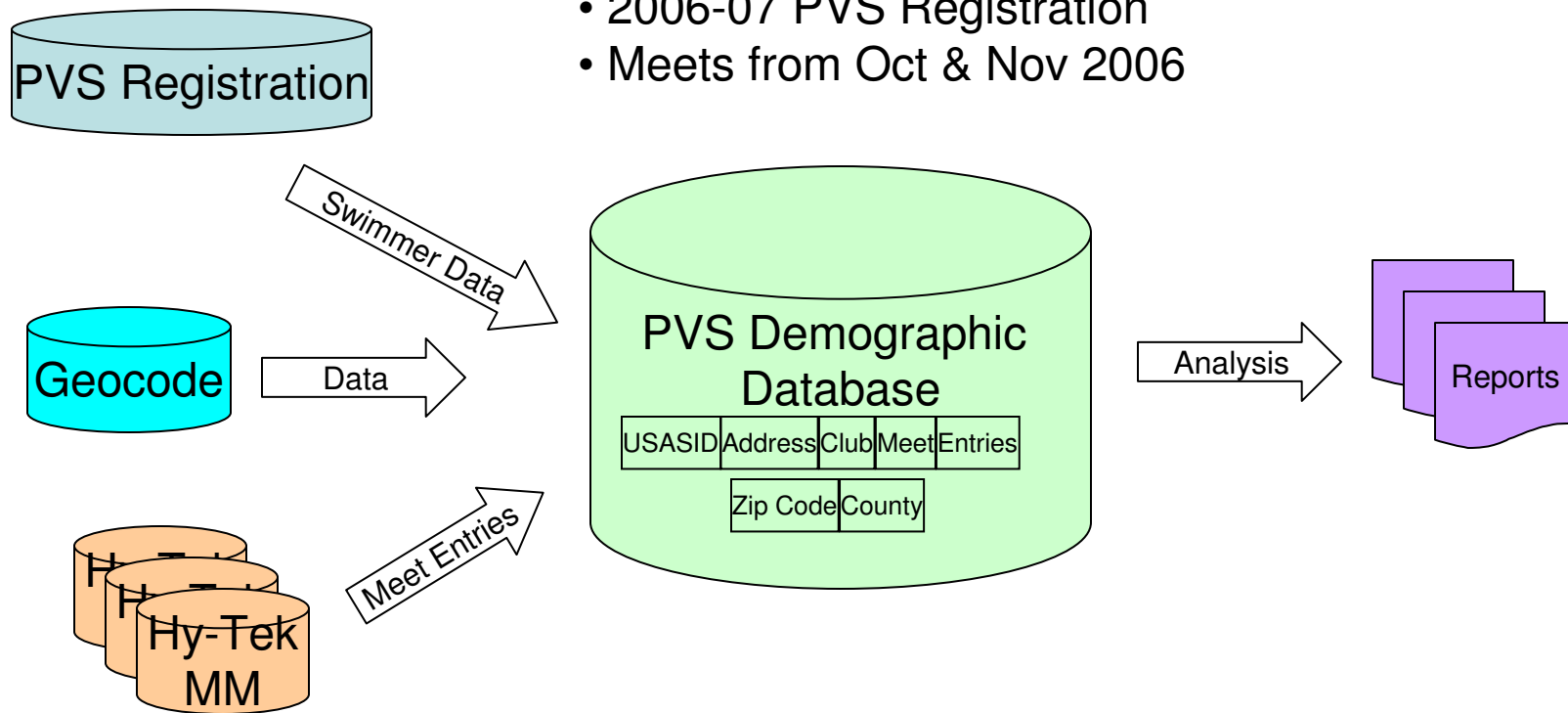


Approach

Test Drive the Analysis

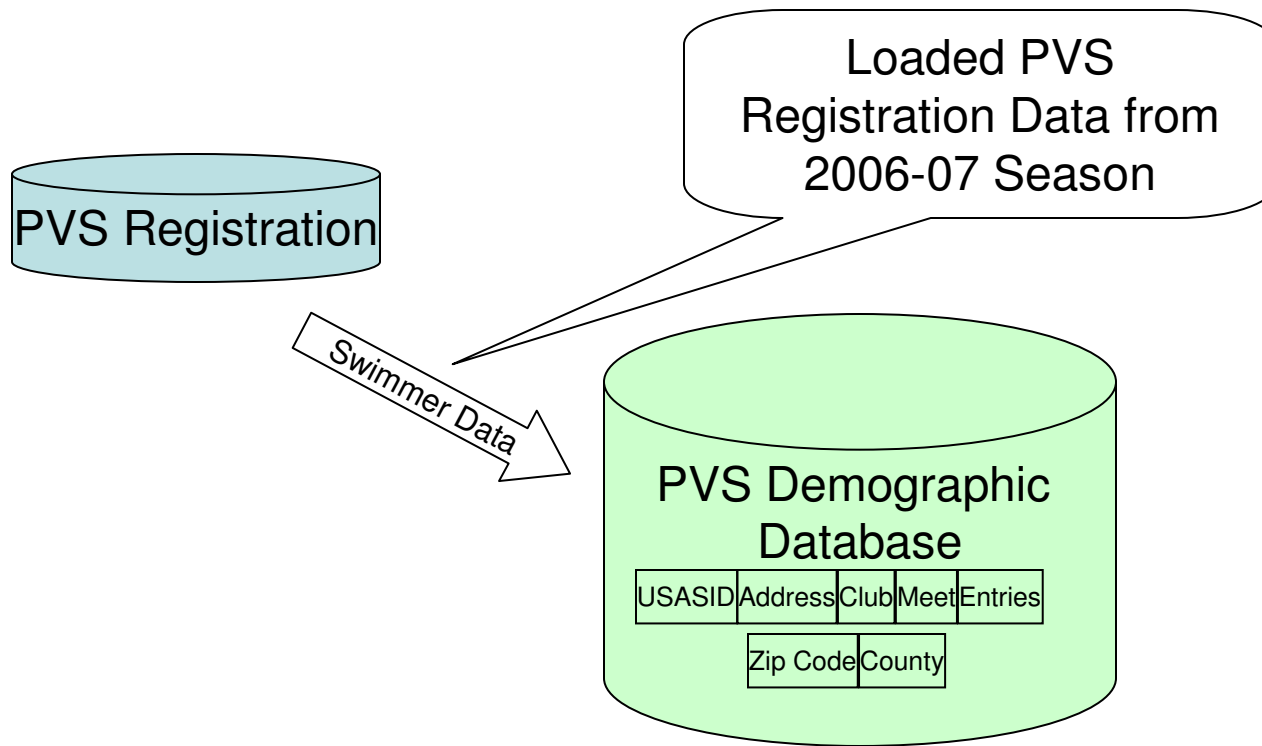
Prototype analysis on a subset of data

- 2006-07 PVS Registration
- Meets from Oct & Nov 2006



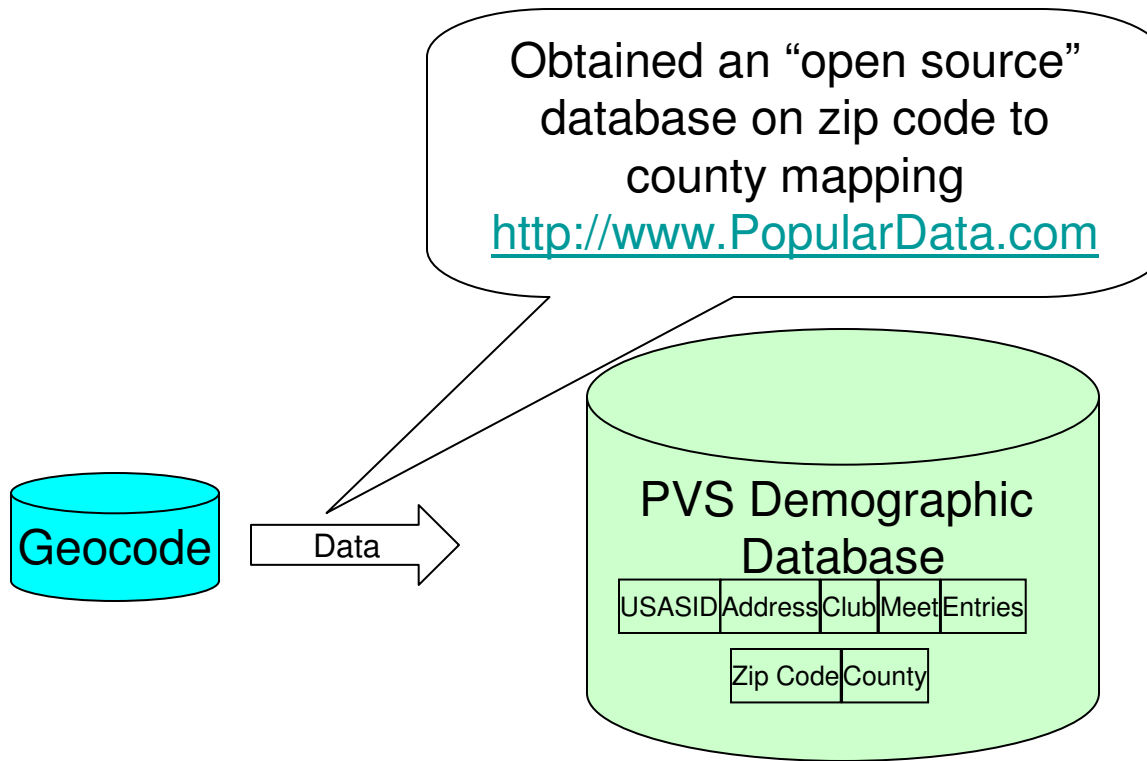


Approach





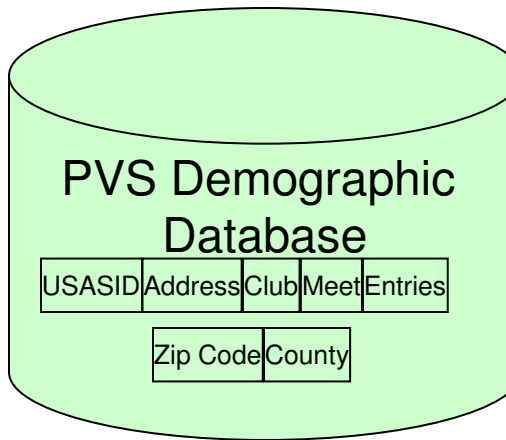
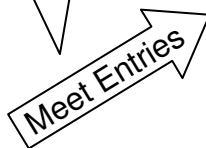
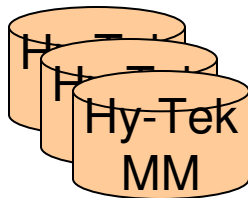
Approach





Approach

Developed program to extract pertinent data out of Hy-Tek's Meet Manager Database. Loaded data from Oct & Nov 2006 meets on the PVS schedule.



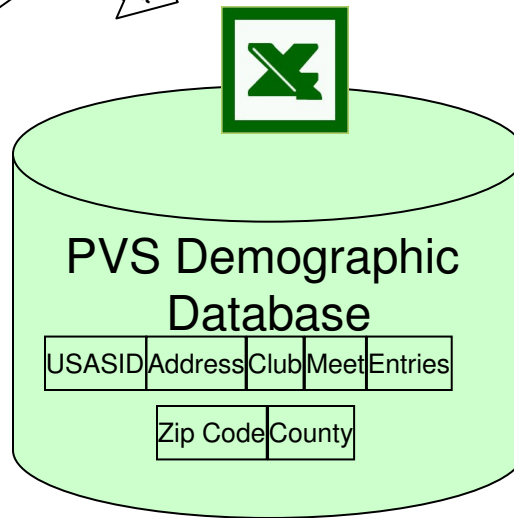


Approach



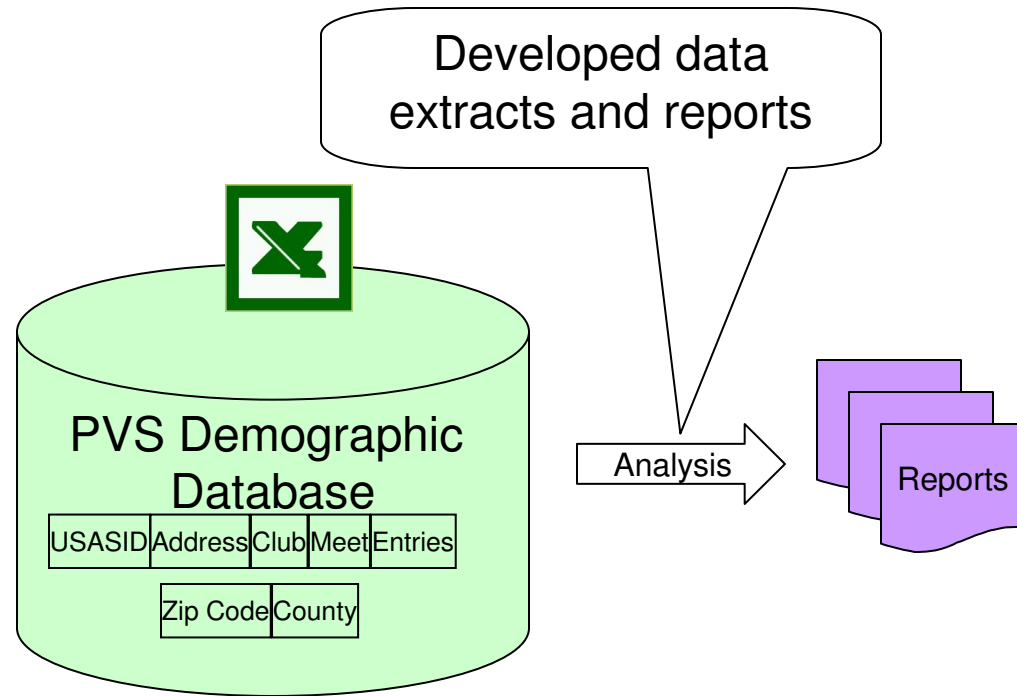
Population Data

Downloaded census data as Excel spreadsheets.
Not integrated into database at this time.



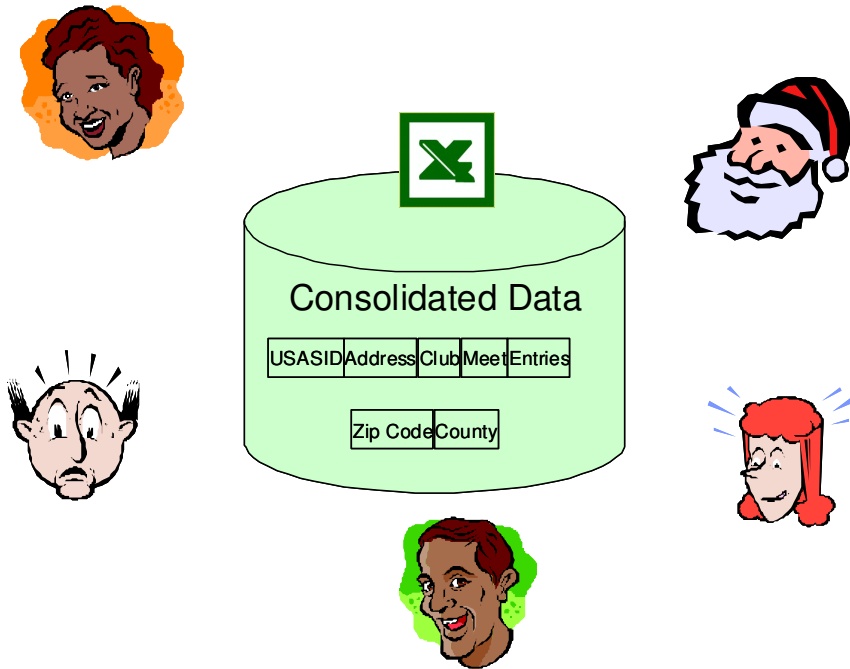


Approach





Approach



- Validate data
 - Spot check against source, i.e., Hy-Tek Team report versus data extracted from the PVS Demographic Database
 - Reconciliation between different views of the data

**Same Data -
Different Perspectives**



Meets Loaded for Analysis

Meet	Start Date	FacilityName	State
2006 PV Sixth Annual RMSC Kick-Off	06-Oct-06	Martin Luther King Swim Center	MD
Harvest Moon Invitational 2006	07-Oct-06	Herndon Community Center	VA
VSC-SDS Invitational I	07-Oct-06	South Run	VA
MSSC 2006 All-Freestyle Meet	08-Oct-06	Fairlands Aquatic Center	MD
2006 PV October Open - Fairland #2	13-Oct-06	Fairlands Aquatic Center	MD
PVS 2006 October Open	13-Oct-06	Fairlands Aquatic Center	MD
2006 PV Oct Open - Lee District	13-Oct-06	Lee District RecCenter	VA
2006 AAC Fall Gator Mini Meet	21-Oct-06	Wakefield High School	VA
2006 Friendship Mini Meet	22-Oct-06	Providence RecCenter	VA
2006 Speedo Eastern States Senior Circuit	28-Oct-06	Prince Georges Sports & Learning Center	MD
2006 Fall Long Course Invitational	04-Nov-06	Fairlands Aquatic Center	MD
The 2006 November Invitational	04-Nov-06	Martin Luther King Swim Center	MD
2006 PVS November Open	10-Nov-06	Prince Georges Sports & Learning Center	MD
PVS 2006 November Open	10-Nov-06	Prince Georges Sports & Learning Center	MD
Swim & Rock 2006	17-Nov-06	Oak Marr RecCenter	VA
QUALIFIER 2006	18-Nov-06	Fairlands Aquatic Center	MD
2006 Pilgrim Pentathlon	26-Nov-06	American University	DC



Sample Census Data

SUMLEV	STATE	COUNTY	STNAME	CTYNAME	YEAR	AGEGRP	TOT_POP
50	51	59	Virginia	Fairfax Co	9	0	1010443
50	51	59	Virginia	Fairfax Co	9	1	73188
50	51	59	Virginia	Fairfax Co	9	2	67992
50	51	59	Virginia	Fairfax Co	9	3	69562
50	51	59	Virginia	Fairfax Co	9	4	66386
50	51	59	Virginia	Fairfax Co	9	5	57713
50	51	59	Virginia	Fairfax Co	9	6	47212
50	51	59	Virginia	Fairfax Co	9	7	4199
50	51	59	Virginia	Fairfax Co	9	8	9263
50	51	59	Virginia	Fairfax Co	9	9	87112
50	51	59	Virginia	Fairfax Co	9	10	89825
50	51	59	Virginia	Fairfax Co	9	11	83177
50	51	59	Virginia	Fairfax Co	9	12	78510
50	51	59	Virginia	Fairfax Co	9	13	55093
50	51	59	Virginia	Fairfax Co	9	14	34105
50	51	59	Virginia	Fairfax Co	9	15	21972
50	51	59	Virginia	Fairfax Co	9	16	1225
50	51	59	Virginia	Fairfax Co	9	17	427
50	51	59	Virginia	Fairfax Co	9	18	3982

Code for 2006
Population Estimates

Age Group Code for
5 thru 19 year-olds

Sum of these numbers used
in penetration analysis



Other Activities

- Proved technical feasibility for geocoding individual addresses through web application available www.census.gov by mimicking a person entering addresses one at a time.
 - Much work needed to turn into working application