The purpose of this survey was to elicit the perspectives of agencies and organizations that provide weatherization services to low-income residents of Pennsylvania regarding a potentially unprecedented increase in funding for their programs.

Weatherization reduces energy costs by making long-term energy efficiency improvements to the homes of low-income people, primarily the elderly and children. Both nationally and within Pennsylvania, increased funding and large-scale program expansion is expected because weatherization addresses the dual goals of energy efficiency and “green-collar” jobs advocated by the incoming presidential administration and many public policy experts.

Therefore, the Pennsylvania Weatherization Providers Network, faced with immediate and critical questions about their readiness for this potentially transformational expansion of weatherization funding, undertook this survey. It is considered a precursor to stakeholder conversations and planning efforts to “ramp up” for weatherization program expansion.

On November 14 2008, a self-administered questionnaire was emailed to 41 agencies and organizations providing weatherization services that comprise the Pennsylvania Weatherization Providers’ Network.

Within one week, fully- or partially-completed questionnaires were returned by 37 agencies or organizations, with service areas covering 61 of Pennsylvania’s 67 counties. Not returned were questionnaires to 5 provider organizations with service areas covering 7 of Pennsylvania’s 67 counties. Key findings are summarized on the following page. Recommendations for action will be developed at an upcoming “Weatherization Summit”.

Please see Attachments A and B for copy of questionnaire and list of respondents.

Title of respondents: 43 individuals representing 37 provider agencies/organizations
26 weatherization program director, manager or coordinator;
12 executive director or CEO
  5 deputy director; planning director; community services director or housing director;

Additional respondents: 1 director of statewide weatherization training program;
1 sustainable energy consultant.
**Key Findings**

a) Providers overwhelmingly view a significant expansion in weatherization funding and program as an exciting opportunity for which they are willing to prepare rapidly.

b) Providers believe that the statewide PA Weatherization Providers’ Network should be maintained as the focus for low-income retrofitting for energy efficiency.

c) Providers cite a number of PA DCED administrative/regulatory/programmatic constraints that act as barriers to weatherization program expansion. These include:
   - Contracting, payment and administrative policies and procedures
   - Average cost per home limits the allowable energy efficiency measures to be installed
   - Single year funding without ability to forecast future year levels

d) In addition to administrative constraints (above), challenges face weatherization service providers in the following areas:
   - Limited pool of experienced workers and contractors
   - Adequacy and availability of training
   - Upfront funding for vehicles, equipment, tools and additional warehouse space

e) Providers identified a number of opportunities for expanding and enhancing the weatherization program including:
   - Using weatherization as a platform for other energy-saving activities
   - Making a stronger connection between green and cost-saving measures
   - Revision of training content and delivery to incorporate more “hands on” field training and train-the-trainer programs
   - [Include other recommendations]
   - Establishment of mentorship or apprenticeship programs

f) Providers cited overwhelming agreement to participate in a stakeholder planning process for expanded weatherization funding and program.

g) At least four challenges faced by weatherization providers lend themselves to statewide, Network-wide strategies:
   - Media campaign for recruitment of employees, contractors and consumers
   - Training: Redesign of training approaches, combined with flexible funding for hands-on field training at regional or local levels
   - Bulk purchasing: Vehicles, major equipment and some materials
   - Innovation: Pilot projects that test new approaches to many dimensions of weatherization: incorporation of green technologies; energy efficiency education for consumers; potential fee-generating approaches to weatherization; public-private partnerships in service delivery.
**Question 1:**
At this time, the agency views a significant expansion of weatherization funding as:

1a. An exciting opportunity for which we are willing to prepare as rapidly as possible
   - This response was cited by 35 of 37 organizations

1b. A challenge with too many obstacles, which we are unlikely to pursue. 0 organizations

1c. Other: 2 organizations
   - We’ll believe it when we see it.
   - We currently have 165 people on our current list. 53 of these are out to the contractor and out of the 112 left, we have already audited 26 of these and in the process of sending out to the contractor. The total of unedited jobs is 86 and I do not want to deplete all applications on file, as it is hard to schedule when you have nothing left for back up calls when a customer cancels their scheduled appointment.

**Question 2:** Have you had an opportunity to engage your executive staff and Board of Directors in considering the implications of “ramping up” for additional weatherization funding and production?

a. Yes, Board and executive staff are positive and supportive of major expansion 19
b. Executive director and/or administrative staff are positive: 8
c. County commissioners and chief clerk are positive: 2
d. Board not yet engaged or updated: 5
e. No response 2

*If so, what are their responses, positive and negative?*

**Positive comments from Board:**
- Will reduce waiting list
- More consumers’ homes will be safe, comfortable and energy efficient
- Will add jobs to our community
- We have a history of higher production when we have had higher funding levels
- If we have sufficient funding, we will not have to use other Redevelopment program funds to keep crews working all year
- We would like to be able to expand this program to all income levels

**Concerns expressed by Board:**
- Advance notice from DCED
- Cash flow and upfront funding
- Upfront funds for vehicles and training
- Recruitment of new personnel
- Board reluctant to ramp up unless we know this is not a “start and stop” exercise. Due to lag in payments, they would need assurance of minimum of 3 years at higher funding level.
- We are ready to expand our production as rapidly as funding allows. We need as much advanced notice as possible in order to ramp up. We need cooperation from DCED on several issues in order to do so, specifically advanced funding for vehicles, training etc.
Question 3: Crews and contractors.

A If you provide weatherization services through direct hire of agency employees, what challenges do you anticipate in recruiting personnel for a vastly expanded weatherization program?

Limited pool of experienced workers
- Difficult to find entry level employees with basic carpentry skills. Plan to hire part-timers to see how they work out
- Skilled crew chiefs; crew members with skills
- It would be helpful if we had special money to advertise i.e. radio in order to reach people during drive time that would have the skills necessary to perform these services.
- Hiring people with Wx experience x 2 respondents; hiring qualified personnel
- Will need to add intake personnel as well as crew
- Finding qualified individuals with basic foundation of skills is time consuming, especially at energy auditor level.
- We do not view this as overwhelming challenge; we are used to frequent staff turnover.

Training
- Training of new people will be an issue
- Getting timely training will be biggest obstacle
- We plan to train even temporary Wx workers, since we typically hire on temp basis when we receive extra funds.

Funding for warehouse space, vehicles, equipment, tools
- Upfront funds advanced for larger warehouse, vehicles, equipment
- Bidding out purchase of new vehicles; getting money from state quickly for additional tools, equip and additional expenses
- Will need funds for vehicles, equipment, tools
- Procurement of vehicles can take several months if ordering from factory.

Contracting and payment procedures with state
- Will need solid time frame and funding to ramp up with qualified people

3B If you subcontract weatherization services, what challenges do you anticipate in identifying and contracting with additional weatherization contractors?

Limited pool of experienced contractors
- There aren’t enough private contractors working in this field. We have had difficulty finding private contractors
- We have advertised for years and the “new” construction companies are not interested. That may change now.
- Recruiting contractors now and expanding capacity of current contractors
- We use heating contractors for standard and crisis heating programs. Program expansion should require additional contractors and lead time to qualify them for our program.
- Convincing potential contractors to invest in required vehicles, equipment and training;
Hiring qualified auditors and contractors who can contribute quickly
Contractors state they make more money in private sector with less paperwork and regulation
Contractors do not even know what a blower door is, which is essential in Wx.
We do subcontract HVAC work and this is often a little more difficult, however, we did receive more contractor inquiries this year also likely due to the reduction in building trades jobs locally.
Finding qualified staff who will pass background checks in a timely manner has been a problem in the past

Supply of contractors is not a problem in our area
We currently have 3 crews that we subcontract WX services. We also have another subcontractor that is interested in starting a WX crew. We also have contractors in our home rehab program who are interested. None of the WX contractors are kept busy full time with WX work. The all said they can do additional jobs.
We have sufficient number of subcontractors, short- and long-term. Always in process of certifying additional contractors for Wx ---- currently have five additional companies in process.
We are immediately advertising for additional contractors, and will consider helping with purchase of blower doors and other necessary equipment for new contractors.
Our agency has already recruited additional heating contractors under contract using seal bidding process

Training
Additionally, we are considering an “apprenticeship” program that would help pay cost of Wx workers while in training phase
Getting additional contractors trained and up to speed
Train subcontractors (consider cost and location);
Training new auditors and contractors x 3 provider agencies

Funding for warehouse space, vehicles, equipment and tools
adding vehicles and equipment for staff
initial cost for subcontractors to purchase testing equipment
adding space for staff

Contracting and payment procedures with state
Challenge is to know funding level ASAP
Uncertainty about how long funding will lasts makes it difficult to hire new staff.

Hybrid business models that combines contracting and direct hire employees
Issuing RFP to local contactors anticipating need to sub out work if inhouse crews cannot handle increase work load
Would it be possible for use to sub contract some of the work to another provider etc.
We function as General Contractor and use sub-contractors. We are considering a hybrid business model, with agency workers parallel to sub-contractors.
**Question 4**

Our ability to fully retrofit a home for energy efficiency will depend on a broader interpretation of “energy-related repairs” than that currently in use by the PA Weatherization Assistance Program.

- Agree 24
- Disagree 7
- No response 6

Comments:

**Strongly urge broader interpretation**
- We strongly urge this change to broader interpretation
- Agree. We currently turn down countless people because of older housing stock in Phila.

**Agree, but training and funding factors will be impacted**
- Agree, but will hinge on increase in per home cost average; additional training will take time.
- Quality work and highly trained field staff with flexibility is key to maximize productivity.
- I agree there is not enough money. The limits should be removed perhaps using LIHEAP money. LIHEAP money should be used in more innovative ways in that it doesn’t have the strict DOE regulations.
- Agree. There is not enough money. Limits should be removed, perhaps using LIHEAP money. LIHEAP funds should be used in more innovative ways without strict DOE regs.
- Agree, very difficult with both LIHEAP and DOE funds. Energy-related repairs have no SIR (site investigation report?)
- Agree. LIHEAP funds can be used more flexibly than currently interpreted by DCED.
- A better interpretation and implementation of the priority list is essential to assure that all agencies are performing weatherization services on the same level and all state monitors are consistent in evaluating agencies.

**Disagree. Interpretation of “energy-related repairs” is not the primary problem**
- We are limited in the amount we can spend per household
- Disagree. We would like to see allowable cost per job increased.
- Disagree; allowable average cost per home needs to be increased. This would allow all measures to be installed to fully retrofit a home.
- Disagree. With blower door, infrared camera and furnace retrofit technology, we believe we do an excellent job saving energy and keeping health and safety in forefront.
- Add energy efficient thermal pane windows, energy efficient insulated pane and storm doors
- Disagree. Field guides have just been updated. We provide more than adequate measures to reduce utility consumption. Most of our clients see savings over 40% post-Wx, according to Dominion report. I would like to see alternative heat source measure provided, but cost of solar is not realistic at this time.

**Uncertain**
- Not sure what you mean by “broader interpretation of energy related repairs.
Question 5
Other changes needed in the current Pennsylvania Weatherization Program in order to accelerate
the pace of program expansion (e.g., contracting, payment, procedures, accountability)?

**Advanced notice of funding levels and multi-year timeframes**
- Identify level of increased funding ASAP
- Project multi-year funding levels
- Know what funding levels to expect for a couple years
- Funding needs to be consistent
- State will have to consider advancing funds for expansion of this program.

**Contracting and payment procedures**
- Process payment requests in a timelier manner. Six or seven weeks is way too long. The contracting process needs to be streamlined also. If we knew the total amount we were going to have to spend for that contract year when we did the work plan it would be easier to plan production instead of having to do an amendment in the middle of the contract year.
- Contract and payment system must be overhauled; it is the major obstacle that exists. Contract should be in place in advance of start of program year. Multi year contracts, advance payment and timely payments are absolutely necessarily.
- Accelerate draw down procedure so funds are available to contractors. Quicker payment schedules; upfront money to expand; Start up funding will be needed; payments must be accelerated. Expedite contracting and payment
- Improved payment schedule for subcontractors; regular payment date windows to better plan our supplier and subcontractor invoice payment schedules so as to avoid interest payments
- Contracting is very lengthy process; average turn around time is 8 to 10 weeks; payment process is very unpredictable (sometimes money comes in 3 weeks; other times 6-8 weeks)
- Contract and payment will be an issue --- current 2 month turnaround on payment forces us to float funds we cannot afford. Speedy payment is critical. This is a BIG DEAL, cannot be emphasized enough.
- Our agency is always battling the delayed payments of 8 to 9 weeks; even 4 week turn around is too long. We have written the Governor about this concern.
- We invoiced Hbg. on July 2 and never received payment until October 18th. These programs cannot run if we constantly are out of money. Soon vendors will stop selling to me.
- Advance dollars available from the state. Shorter contracting processing time. Shorter invoicing/payment time. Contract in place prior to new funding year; or multi year contracts.
- Provide a three (3) month budget advance to allow financial resources to promptly pay suppliers, contractors, staff, etc. and not have cash flow problems
- Prompt invoice payment – within 4 weeks
- Have multi-year Weatherization contracts that can be modified by letter of amendment from DCED as additional appropriations are available.
- Payment should go back to the way it was before the AG’s audit. Our cash flow has gone from pretty good to absolutely horrible as a result of the change in WAP reimbursement. We cannot expand unless cash flow improves. The capital markets are chaotic. We cannot increase our line of credit because banks are so afraid of lending now.
Allowable expenses: Administration and cost per unit

- Revisit the 1993 issue;
- Raise the 1993 cutoff to 2000
- Higher average costs and eliminate the 1993 revisit procedure so that high users who are done a number of years ago can be revisited with new more comprehensive measures now.
- Higher average costs for LIHEAP crisis jobs would be of great help and more “realistic” to market conditions.
- Boost job average cost; allow to request additional dollars at a time;
- More flexible with average cost per unit
- Greater amount of administrative money needs to be available for direct supervision of crews to assure performance. We currently have one Wx supervisor for 13 employees, including crew chiefs.
- Contractors indicate they make more money in private sector, with less paper work and regulation.
- Their needs to be a system in place to advance money so there is not a long time lag with cash flow problems to the organization.
- Using a combination of in house personnel and contractors to possible include other weatherization organizations cooperatively.
- In the short term, use LIHEAP to allow greater flexibility while advocating for DOE changes
  1. Develop an annual LIHEAP plan
  2. Increase allowable and advanced measures to ensure comprehensive energy efficiency; this will increase the average cost per home
  3. Enable re-weatherization of homes completed since 1993 to incorporate more advanced measures
  4. Expand “Health & Safety” and incidental repair funds
  5. Allow a home warranty so homes can be annually revisited to tune furnaces, reseal and minor upgrades for high energy users
  6. Extend LIHEAP Crisis Program to year round schedule
  7. Do pilot projects, e.g., solar measures, condensing furnaces in homes of high users.
- I feel the time-guideline to re-weatherize a property is to long, that should be reviewed and changed if possible.

Increased funding for training, vehicles, tools and equipment

- More money for training, vehicles, tools and equipment
- More frequent crew trainings

Training

- Increase availability of training and locations. Reimburse contractors for crews to attend mandatory trainings
- More flexibility is needed with T and TA funding to allow in-field training of new staff
- Expand training to achieve more hands-on field training on actual homes
  - Expand WTC’s function to include “Train the Trainers”
  - Regional training seminars – groups of agencies
  - Training budget for individual programs to choose and customize their training
Many times BPI training is in local areas, enable T & TA reimbursement for taking the training locally

- We need a streamlined training program that could get both crew workers and auditors up and running quickly. The current WTC course schedule is too lengthy to get people trained in a timely manner. The WTC will also need to prepare to train substantial larger number of workers in an accelerated time frame.
- Training would be more effective if it focused on deteriorated dwellings instead of mock up lab scenarios.

**Accountability and relations with DCED**

- Monitors must be kept abreast of what Harrisburg is doing or planning to do
- More agency directors interaction with and input to DCED
- DCED does as good a job as possible
- The desire to show increased numbers must not override our goal to provide comprehensive, holistic energy efficiency service.
- The accountability of the State (DCED) must be an equal and essential part of the Reinventing Weatherization, in partnership with the Providers’ Network.
- Budget authority in the State budget should be more flexible, adding provisions to anticipate increases from DOE Weatherization and transfers from LIHEAP

**Other**

- Automatic eligibility for homes over 50 years with occupants 60 years or older
- There is always room for improvement, but we can function and exceed expectations with the current contract management process.
- No changes offered
- Aside from the obvious energy saving imperatives, new goals include carbon reduction, retention of affordable housing, indoor air quality, creation of green jobs (especially for those now in poverty), and other non-energy benefits.

**Question 6**

Can you list any new measures you would recommend incorporating into the program?

1. In general, deemphasize short-term savings and evaluate measures on broader environmental, energy efficiency impacts and housing stock upgrades. Include bringing chimneys into compliance with code requirements.
2. Develop heating system upgrade criteria to achieve lower emissions, reduced dependence on oil imports and greater energy efficiency. Consider an approach similar to refrigerators; create a list of outmoded boilers/furnaces that should be replaced.
3. Consider allowing fuel switching to achieve national goals - reduced emissions & reduced dependence on imported oil.
4. Include solar water heating systems based on long term positive impacts.
5. Repair allowance should be increased and should cover significant residential alterations.
6. DCED Infomercial to highlight need for auditors, contractors and training requirements/opportunities; including contact information. Place on local radio/TV stations with local contact information.

7. DCED should prepare and issue guidelines/required qualifications to ensure timely hiring of qualified personnel who are able to quickly contribute to program objectives taking into account local conditions. This approach should be aimed at reducing duplication of tasks at local agencies while ensuring program work quality and client household safety.

8. Consider allowing subcontracting of auditing/measure installation to private firms which also do the installation of measures. This should be tied to strict adherence to compliance with Priority List and inspections.

9. Many households we serve have limited capacity to do routine energy-related maintenance. Consider adding a maintenance feature to the program. A future reduction in Crisis Program referrals is a potential benefit.

10. Expand Crisis Program Period of Operation. For example, include October in eastern PA.

11. Domestic Hot Water Heaters Including Summer/Winter Hook-Ups – allow repair/replacement to provide efficient heating & delivery of domestic hot water throughout the year.

12. We strongly recommend a special effort to install condensing furnaces in homes of high users using LIHEAP funding. This could be (and should be) in addition to weatherizing the home.

13. Solar water heating and solar warm air heaters should also be permitted.

14. We would like to do a pilot program “Zero Energy Row Home” which would involve a number of new measures including exterior foam insulation.

15. Wind & Solar Technology

16. Provide Power Cost Monitors to assist in conservation of energy

17. Expand furnace replacement program to include fuel switching to lower energy costs

18. Allow installation of tankless water heaters and mandatory programmable thermostats for every home

Cost average
- Material costs keep going up a large % but the average only jumps a little. With the current job average it is impossible to do everything that is already offered, but if the average were to go up we could do renewables, not so much PV but more Solar Hot Water
- Consider economic realities in computing ROI for Wx projects

Demonstration projects
- Establish comprehensive “pilot installations” - seven in each contract area where a model full Wx/Energy site is retrofitted and measured for comprehensive results (for periods of 1, 3 and 5 years) to assist in developing best practice for energy retrofits that impact client costs, environment and Wx program

Code requires more expensive materials
- With the new code change all basement and attic air sealing must be done with a fire block material (Foam or Caulking) which is higher in price, the attic hatch insulation can no longer be done with fiberglass; instead it must be insulated with a non-compressible insulation again more costly.

PA Weatherization Providers Survey
December 2008
**Measures that are both green and cost savings for clients**

a) Water heaters:
   - More flexibility needed with replacement of hot water heaters.
   - On demand water heaters (tankless) x 3 respondents
   - Bladder tanks

b) Solar
   - Installation of solar hot air panels to supplement primary heating systems when the site is appropriate. Solar hot air would be applicable if home is already energy efficient and little or no standard weatherization measures are required.
   - Solar hot water systems x 4 respondents.
   - Consider inclusion of: solar window films, passive solar heating, solar hot water,

   c) Furnace replacement and heating systems
   - Adding anti-freeze to heating systems that use hot water radiators, since service termination results in almost total destruction of heating systems due to frozen pipes in dormant system.
   - Distributing the Endenpure (quartz infrared) heaters for clients with no source of heat
   - High efficiency heaters.
   - Annual furnace clean and tunes

   d) Appliances
   - Replace other appliances: dryers, freezers, stoves, washers A/C, dehumidifiers. ?????
   - Replacement of old water heaters, windows and central air conditioning;
   - Many requests for replacement of domestic hot water heaters as part of Wx program.
   - We see many old stove/ovens with worn out seals/gaskets, contributing to high energy use.
   - Servicing air conditioning units/central air, especially for elderly and disabled

   e) Roofs
   - Replacing roofs is greatly needed, however we understand this is expensive
   - Roofing repairs and wiring
   - Roof repairs and more repairs for addressing moisture issues X 2
   - White roof coating along with insulation

   e) Lighting
   - Expanded appliance replacement and fluorescent lighting ability to use new technologies as they arrive on the market without going through a long and drawn out process to go into eligible weatherization measure lists.

   f) Doors and windows
   - Move up higher on priority list: use of high efficient replacement windows
   - Storm windows and doors
   - Expand usage of high efficient replacement windows
Question 7
Would you recommend changes in the Priority List or payback period?

Consumer eligibility
- The elderly are disadvantaged by the priority list. They are the most energy conscious and will lower their settings, thereby eliminating themselves as “high energy users.”
- Highest priority currently is highest utility usage. Typically, elderly clients cut back thermostats, wearing overcoats indoors in midwinter. Elderly and disabled have no incentive to conserve if they are no longer priority cases.
- Add working single mothers with children six to ten on priority list
- We really like targeting the highest users and using the utilities’ lists to do so.
- People with life threatening illness should be considered priority.

Priority list
- The Priority list assumes that the home is all closed up, that the windows are functioning and present and that the doors all shut tight and operates well, but in many cases that is far from the truth.
- The priority list is okay. The average cost per home needs to be adjusted, with rising cost of labor and material is getting harder to maintain the average and do a good job on every project.
- Revisit the way we prioritize Wx measures for auditors
- These items must be taken care of before you ever consider insulation which the list does not take into account.
- In this case we should first make sure that the home is functional first than take care of the furnace and insulation. Far too many times I have seen agencies install furnaces and attic insulation only to see windows hanging open, doors not shutting or parts missing. How does this help the clients and energy savings?
- When you ask those agencies why, they say that they are following the list and if they don’t they get written up for it. This isn’t right - the list is a guide, not stone, and the state monitors need to take that into consideration.

Payback period
- PA DCED/WTC did an excellent job developing Priority List. There should be less emphasis on payback period and more attention to valuable long term goals that are difficult to quantify e.g. reduced emissions; reduced dependence on imported oil.
- The payback period that the utilities use (10-12 year payback for shell measures which seem to be working for them) and 7yr for stuff like well pumps, bladder tanks, refrigerators and any other measure that an agency wants to do that they think will save energy.
- Lower payback period to expand additional services
- Shorten payback period
- Longer pay back for appliances and some measures.

Mobile homes challenges
• Mobile homes are the worst to do due to the increases that window and doors have taken in the past year, and they are not done yet.
• Priority for houses seems to work well; priority for mobile homes requires too much time and labor to blow roofs and side walls

Other
• Move toward having all auditors BPI certified, using this software would provide uniformity with other initiatives throughout the state and nation.
• Not unless they can be proven inaccurate
• Not at this time
• No changes in priority list – it works well.
• No x 3 respondents
• Although I do not recommend any changes to the current priority list, I recommend clearer interpretation of the priority list

Question 8
Training. What training programs or opportunities have you found to be most successful for your weatherization crews or contractors, at what skill level?

Hands on training works best for this employment sector
• On-the-Job training over years of crew members has been the foundation on which all of our current contractors developed program skills and knowledge necessary for success
• Hands on training is best, sinks in better with crews than classroom training.
• We work with WIB to secure training scholarships, full or partial, in new technologies
• Having an inhouse blower door has worked well. Most of our contractors have the other needed skills when they come to the job.
• Partnership with WIB for training out of school youth
• More hands on, in the field training
• Our crews learn most from auditors.

Comments on Weatherization Training Center in Williamsport
• WTC courses are very good for gradual skill/knowledge improvements and reinforcing good practices.
• The training center is a good foundation good for the basics, but it stops there.
• At WTC 80% is classroom, I have found that most weatherization personnel learn best from hands-on instead of classroom.
• We use WTC only. Adequate, but space is limited.
• At this time, our Wx contractors have access PA Wx Training Center. However, challenge is to secure a space due to limited class size (12-14 students). Classes needed more often and/or offered at satellite locations.
• Trainings not offered on regular basis, are far apart in time, making it difficult to produce fully qualified crew members in reasonable time period
• Wx Training Center is the best for handling this.
Infield training under the mentorship of highly trained supervisor supplemented with courses through the WTC are the most successful.

The Weatherization Training Center also provides very good basic training. Our staff definitely benefit from those trainings. However, it takes too long to get new staff trained through WTC, so we supplement that program with other trainings.

Take WTC on the road, out of the classroom. When Bill and Larry from WTC came here for mobile home training, my staff felt this was the best training they’d ever received. The trailer they used was in horrible condition, with little or no insulation, and the crews learned what to do and not to do.

Content of training

- They need to go into the material installation more, wall insulation, mobile home belly and roof insulation, hands-on field blower door and zonal pressure testing which can only be learned in the field,
- How to address a Cape Cod style home, garage ceiling insulation and how to isolate a tuck under garage from the rest of the home,
- More frequent training for crews and crew chiefs
- More training for state website
- Basic and advanced courses, crew safety, electrical safety; combustion analysis, retrofit and safety; Blower door training and HVAC training at work site, not classroom setting
- Oil and gas heating; moisture control; ventilation
- In the field blower door and pressure testing; more training on newer style heating appliances (e.g., heat pumps, geothermal); BPI training
- At all skill levels the training we have received on blower door and pressure testing; moisture control; home sidewall insulating and base load measures have been an asset.
- Increased site training for crews: common work hazards; asbestos identification; communication methods with difficult clients.
- Weatherization tactics at laborers’ level; combustion analysis for auditors and crew
- We very much like the Saturn on-line programs and the BPI analyst training for our auditors and inspectors. We are now developing a new training program for installers.

Do you have ideas about new approaches to training for crews or contractors?

- Consider intensive, comprehensive regional training, possibly in conjunction with community colleges, for new auditors/contractors.
- DCED and WTC in conjunction with Dept of Labor and local Career Links could offer training in Wx employment throughout the state. Individuals who pass these training courses or certifications could be referred to Network providers. This would produce pre-trained workers for the Network.
- A local budget for training to allow use to pay for training directly as we see fit.
- Add funding for sub-grantee staff member/time dedicated to continual training of auditors/contractors.
- Current T&TA-based approach limits sub-grantee capacity to constantly train field personnel in basics and innovations in this rapidly-changing, technology-based environment. This undermines ability to expand/improve.
• Doing onsite training locally in real homes with a schedule controlled by our organization as much as possible. This would allow us to have a menu of approaches from a variety of training vendors.
• An incentive payment is needed for work completion overtime for crews for longer hours the hiring of new employees in particular with new technical skills.
• WTC can “train the trainers.”
• Use vendors to train for certain types of equipment and retrofits
• More training specific to retrofits needed. Ex.: individual manufacturers’ reps conducting field instruction, illustrating proper product installation in insulation, HCAV, etc.
• Perhaps use community colleges for training, in addition to PWTC
• Infield training under the mentorship of highly trained supervisor supplemented with courses through the WTC are the most successful.
• We also like to bring the WTC staff here (in our region), since we have so many staff who need training and it’s much less expensive to transport two trainers than 20 trainees.

We are is in the process of raising enough money to renovate our warehouse to create a state of the art Energy Efficiency and Solar Training Center. We want to be able to strengthen our training of our own employees as well as to provide training for others in the region. Pennsylvania needs several additional centers of training at this stage. Because of our access to rail transportation, our city is a natural to draw people from the Mid Atlantic region.

• We plan to develop a “Green Collar Jobs” training curriculum which will provide remedial writing and math training for those who do not have any college level experience, in addition to providing a wide range of skills training in both Energy Efficiency and solar (both solar thermal and photovoltaics).
• Weatherization Training Institute needs more seating - classes filled frequently
  • Branch Campuses
  • Stipend for Contractors to attend training
  • Green Technology and Alternative Fuel sources
  • Online Trainings
  • Peer to Peer, best practices on new technology

Approach to learning
• Improved approach to learning: more on-site, hands on, practical experience outside of classroom
• Informal apprenticeships: Have new Wx workers work with established workers so they can receive immediate hands-on training.
• Match local trainers with portfolio advisers, local workers who can review student responses and comment on effective solutions. Allow the “hand on” aspect of training to be provided locally. (Similar to Social Service training/credentialing with Cornell).
• Train the trainer programs where local employees could provide some of training
• Onsite local agencies, or group of agencies, could do local trainings
• On site field training in local agencies. Most successful training I have seen was multi-county training with Fayette and Westmoreland on mobile home roof blowers. Repeat this multi-county training with local instructors.
• Local classes; collaborate with Workforce Investment Board (WIB) to provide training funds to reduce contractor OJT for new employees
• Weatherization Providers Task Force outside experts have been exceptional.
• DCED should retain testing to insure quality is preserved

**Question 9**
**What three strategies could you implement quickly to increase production?**

**Outreach and marketing**
• Marketing of the program to increase applications
• Advertise the program more to get more clients.
• Increase outreach and recruitment of consumers
• Advertise for additional clients
• Advertise to secure new contractors
• Advertise for more technicians
• Consider partnerships with local private contractors who provide energy services

**Recruitment of additional personnel**
• Incorporate youth crew to provide direct weatherization installation measures
• Hire additional staff (inspectors); it takes about 3 months of training before you can let a new inspector out on his/her own.
• Get contractors to build extra capacity to handle the additional work.
• Try to hire more subcontractors
• Hire more people (crew members) X 2 respondents
• Hire additional staff/crew members; additional equipment; additional vehicles
• Hire another energy auditor
• Get Board approval to hire 2 new staff (1 caseworker, 1 auditor); advertise for the 2 new staff positions and get hires in place for Jan 1st
• Hire in-house crews to do Wx measures beyond furnace and insulation, let contractors concentrate on these measures; hire additional auditor and intake staff.
• Hire a new auditor x 3 provider agencies
• Ramp up staff hires in all phases of program (crew staff, auditors, intake and admin)
• Contact existing contractors to see if they can put on additional crews
• Hire additional auditor/inspector; hire and cross-train intake staff
• Consider partnerships with local private contractors who provide energy services

**Training**
• Training for all new hires at WX Training Center --- regional trainings.
• Quick Start trainings to make new workers productive more quickly

**Additional equipment**
• Buy additional equipment needed: blower door, furnace tester
• Purchase new tools and equipment;
• Purchase tools and equip for additional staff (vehicles, testing, blower doors)
• Existing contractors are ready to ramp up;
• Significantly increase admin portion of Wx funding, allowing for more training of program executives and managers, and smaller ration of supervisors to workers.
• Purchase additional vehicle
• Update some older equipment with improved models and scope of operation
• If money is available, purchase more vehicles, tools and equipment.

**Administrative changes**
• Target geographic areas to group clients within smaller travel distances (3 county area); increase effectiveness of scheduling communication, and create fall-back alternative appointments list;
• Reconfigure Wx project process for quicker response time while continuing quality assurance
• One furnace contractor is willing to do other measures for a “one stop” approach;
• Increase funds for warehousing of insulating products, allowing for efficiencies of scale and placing materials closer to jobs being done.
• Perform work on duo jobs, completing state and utility jobs together
• Increase work assignments for existing contractors; solicit additional contractors;
• Subcontract some of the work; increase number of crews
• Use inspector from our rehab and access programs to inspect Wx homes.
• Assuming DCED authorization, subcontract both audit and measure installation at the same residence to private firms. This would allow one-day service in many cases and reduce the number of times a residence must be visited.
• Crisis Program. (Assuming DCED authorization) Subcontracting of initial on-site visit/heating system inspection to HVAC firms who can be assigned work identified. Authorization could be for a specific percentage of Crisis Referrals.
• Eliminate the revisit restriction to allow for high users to get additional work to save energy;
• Accept utility program intake as proof of income eligibility – This will reduce administrative cost and speed the intake process. Now that we are all targeting utility high users, if those customers are currently on the utilities’ programs lists, which use a lower income eligibility level, they are all income eligible for WAP.

**Other**
• Hiring and training of weatherization personnel via contractors of direct hire
• Securing of resources (materials, vehicles)
• Development of a realistic weatherization plan; units time frame, resources requirements, action steps
• Opportunities include re-tooling the network for solar hot water retrofits where applicable and other demand side strategies for appliances, lighting and similar strategies. Finding and training employees, installers and inspectors for performance contracting will be instrumental to our success.
**Question 10**

**Quality assurance.** Certification for weatherization programs through the Building Performance Institute, Inc. (BPI) has been recommended by some energy experts. What are your thoughts in this regard?

**No response** 4

**BPI certification is a good idea and will be beneficial to Wx programs**
- We believe this type of certification would open up new focus on housing stock and would have all agencies on same page.
- Good; good idea; would be helpful/beneficial x 7 respondents
- Good idea, as long as training is properly funded
- I’m not that familiar with BPI, but I think it would be a good idea
- Appropriate certifications are good in some areas, depending on training, testing and costs.
- We have been receiving excellent specialist training through the Weatherization Providers Task Force, but I believe BPI is a thing of the future
- We are currently BPI certified; our workers provide more comprehensive approach to air quality and energy efficiency
- We fully support this and are ready to start training select personnel
- Auditors and inspectors getting BPI certification is a great idea. However, need to loosen QA/QC normally used by BPI to perhaps a 10% to 5% field inspection level to maintain production. EPA is moving toward a 10% to 5% home inspection level in order to get High Performance with ENERGY STAR program to scale.
- Would be in favor of this if funds are budgeted for training and attendance. Budget should also include incentive funds for completion and certification of employees.

**BPI certification is an emerging standard we cannot avoid**
- Strongly agree. BPI is rapidly becoming benchmark standard for energy conservation and certification, not only statewide but nationally. We want to avoid perception that PA Wx Program is sub-optimum compared with BPI standards and protocols
- I think that it is an expense that we don’t need but with others getting their BPI status that are not Wx agencies I don’t think that we can afford to ignore it for long or they will be plying for our money and saying that they are more qualified to do the work.
- Certification is the first step in becoming “energy professionals”.

**Test will be challenging, even for good workers**
- I think that it is a good thing, but you may lose a lot of good inspectors in the state that can not pass the test. There are a lot of auditors out there that are doing a very good job but are not good test takers. What do you do with them?
- Many good workers in the Wx Network do not pass the test, and do not do well on written exams.
- Some good workers will find it difficult to pass written test.
**Training and certification adds to overall cost of Wx**
- We should take cautious steps forward in BPI certification. It is worthwhile endeavor and could be an asset to the Wx program, but implementation could affect staffing. Major concern is Wx staff receiving all necessary training at expense of Wx program, and then moving into better paying, private sector jobs.
- It is very expensive, then you must send them to different trainings so they can get their continuing education credits to keep your certification status, you also have an annual fee to pay as well.
- BPI training appears to be the buzzword these days and probably carries weight on the political level. Concern is time and cost.
- Certified workers would require additional wages
- If we hire only certified BPI raters, cost for auditing is going to double, but does not guarantee you will get most qualified person for the job
- Maintaining CEUs is time away from job, adds more downtime, increases cost per home.

**Not needed, given existing quality assurance monitoring**
- This is not necessary since our quality control is measured by DCED monitors. If our staff must carry these credentials, we have no need to be monitored given the new computer system.
- Why go through another layer of bureaucracy?
- Williamsport Training Center has been good source
- I do not agree with this
- Training is already strictly defined by DOE and state plan
- A credentialing program with local trainers for OJT portion would be helpful (instead).
- Why should we pay $1500/yr. to be accredited and have to comply with another level of paperwork and procedures just to add some initials after our name? Don’t our state monitors verify that we are doing “quality” work?

**Uncertain**
- Don’t know at this time; don’t know what certification process consists of or what difference it will make to crew person in attic or crawl space.
- Uncertain of benefits x 3 provider agencies
- Is BPI necessary? Isn’t Williamsport Training Center already an affiliate of theirs, delivering BPI level training?
- This matter should be reviewed by PA DCED WAP and WTC staff. Any certification requirements should be subject to WTC review and collaboration. Consider required levels of certification for different WAP job descriptions/responsibilities developed by DCED.
- Perhaps WTC could become approved BPI trainer an incorporate BPI standards into standard Wx procedures. Getting all (state, utilities, Network) on same page with procedures would be good – BPI could accomplish that.
- I’m still out on this – is it another radon or lead gimmick?
Question 10 B: **Best ways to structure expanded weatherization service delivery**

Overall, it makes sense to keep the provider network as the focus for low-income building retrofitting for energy efficiency.

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**Comments:**

- This is a no brainer. Best providers are often existing providers who are helped to expand, rather than new start-ups. Most CAAs also have strong social services component, strategically located offices, even in rural areas. With additional admin funding, Wx applications could be facilitated closer to clients’ homes.
- Agree. Significant WAP expansion can be best achieved while maintaining quality by using this opportunity to infuse qualified new personnel into network. DCED should focus its efforts on supporting the goal of ensuring that subgrantees attract qualified new personnel.
- Agree. Current Network has the staffing, capabilities and knowledge already in place to provide Wx services to low-income sector.
- Agree. Wx Network should continue to be main provider for low-income energy retrofits.
- Agree. Network is already in place, doing the work. Why reinvent the wheel?
- Agree. Makes no sense to ramp up another entity. Why not use funds to support expansion of existing entities?

Agree, since private contractors do not have capacity to do Wx

- Agree. In our 4 county service area, there are zero contractors performing our services. Furnace contractors do not have testing abilities we implement.
- It has been our experience when Wx is “private” that the work is superficial and shoddy and they only do the easy things.

Agree, but **Network capacity needs are a factor to consider**

- Agree. Providers may need more training and TA to handle challenges coming our way.
- Some agencies may need to review programs of similar size to see how to increase production. Larger agencies have more resources to draw on; can help smaller agencies.
- Cooperative working relationship with other working weatherization providers would be very helpful. I think what is most needed is a strategic plan process similar to what was done by the WPTF in the past we should implement a process of working together bring outside experts to insure that everyone has the help and advice they need to make ramp up possible. The local community provider must be a part of this process if the operation of services are moved father away they will not have local support. These decision need to be made in our local communities.
- DCED needs to get more input from people doing the work and trying to keep an organization running

Disagree

- Disagree. We believe income guidelines are too low. There is a larger group of bill payers that could use our help with possible greater returns on investment.
- Disagree; add low- middle-income range, not only to reduce energy (common goals) but also increased education.
Question 10 B
In geographic areas where the existing provider is unable or unwilling to expand weatherization services, another provider with sufficient capacity should step in.

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Comments:

General agreement

- This concept makes sense. If there is an unaddressed need, we should endeavor to meet it. The evaluation process for making these decisions needs to be fair and firm.
- We as a network probably need to be more aggressive in “monitoring our own”.
- A major disincentive to expansion is need for increased management as problems arise, given poor ratio of supervisors to workers. If local provider does not want to expand, consider contractors or providers in adjacent areas.
- This would further Wx common goals and increase client base.
- Agree. If an existing provider is uncooperative in expanding their program, another provider from the Networks should have opportunity to step in and assure all low-income families statewide receive Wx services.
- However this should be a last resort, only after all other options are explored and ruled out.
- If voluntary and working cooperatively with Wx provider in other area.
- As long as main focus is to serve client & communication with local agency remains intact
- Agree, with consent of existing organization, not imposed by DCED without due process.
- Agree, but we are not agreeing to develop other providers outside area.
- Agree. There are a number of skilled providers in state who do not have WAP contracts, who may be interested in doing this. However, would not like to see state contract with energy saving companies (ESCOs), particularly out-of-state contractors.
- Agree. The local agencies function need to remain and continue to be involved voluntarily and working cooperatively with another local weatherization provider in their part of the state would be a viable option. If we do not have a BPI certified staff member we should be able to subcontract with another local or neighborhood weatherization that has a certified BOP staff to assist in this regard.
- If, and only if, the existing provider asks for help

Disagreement

- Disagree. If unable to expand, they need training and technical assistance. If unwilling, then it is okay for someone else to step in.
- Disagree. If unable to expand, use training and funds to enable expansion. If unwilling, find out why; if situation cannot be changed, find another provider, preferably a Wx provider.
- Disagree. Provided we get money in a timely manner, we should be able to expand.
- Disagree. We plan to handle.
- Disagree. The cost of travel would have adverse effects on client savings; maybe initiatives could entice all agencies to cover their areas.
Question 11
Future stakeholder planning. Are you willing to participate in a meeting of PA Weatherization Providers and the Department of Community and Economic Development to consider the opportunities and challenges presented by a large-scale expansion of weatherization?

Yes 33

No 1

Other: 1 Only if it is providers and DCED only – no consultants and no salesmen

No response 2

Comments
- Key to our collective future is to demonstrate statewide capacity and effectiveness.
- Emphatically yes
- Yes DCED needs to talk more to Wx directors, gather input and ideas from folks in the trenches. It is going to take time and money to ramp up.
- Depending on location, timing and associated costs.
- Absolutely. This needs to happen quickly, before the end of the calendar year.
- Yes, it is extremely important that those doing the actual work are making the decisions. The “suits” who have never seen the inside of a low-income house are hardly in a position to call the shots on Wxing a home.
- Wx Providers Task Force should convene providers and offer assistance to ramp up
- We need summit of Wx providers with facilitator, to explore best practices nationally and refocus goals and new strategies
- Yes, good idea
- No, money theme is recurrent and only roadblock to expansion. We need to get the Governor’s Office involved in fixing this.
- I think the Weatherization Providers Task Force should convene weatherization providers in a process to provide us with the assistance we need to successfully ramp up using a facilitator and other outside experts. We need to convene a summit of weather providers using a facilitator discuss best practices across the country in order to refocus goals and develop new strategies to meet them.
- We need a collective, thoughtful look at each component of ramp up and production to produce a positive result in PA
Part II. Preparing for Challenges Ahead
Preparing for a vast expansion of weatherization in near-term (present up to 2 years) and longer-term (3 to 5 years).

a. Personnel recruitment (including program management and field staff)
   - Long term, establish relationships with a broad range of training institutions, from technical high schools to community colleges to 4 year colleges.
   - Talk with local job service to start a Wx training program
   - Need a statewide media, marketing, ad campaign for recruitment, using individual agency tags
   - Partnership between Dept of Labor and Wx Program of DCED
   - Develop programs to recruit and train at-risk youth, out-of-school young adults.

b. Training needs for various skill levels
   - We will need to train in solar and wind site assessments, and evaluation of other conservation strategies as they emerge
   - Waiver of average job cost – or more flexible T and TA funding --- will allow for appropriate field training time
   - Consider short courses in Wx for senior management and board members
   - We have a proposal in right now to the Department of Labor and Industry to do remedial writing and math training in addition to skills training for installers. We also are training all auditors and inspectors to become BPI certified. We are writing a business plan for our training center and beginning to think through longer term issues.
   - We need to be alert to the Green Collar Jobs training funding which is coming soon!
   - DCED should require grantees to attend more technical, leading edge trainings.
   - Need to begin incorporating supplemental training in alternative energy (solar, geothermal) for more advanced workers.
   - Partner with utility companies for advanced training, e.g., solar panel usage.
   - Offer Web-based courses and testing
   - Consider establishing pooled funds for regional training, cooperative endeavors among local weatherization providers.
   - State should offer BPI certification training to all appropriate Network personnel
   - Training should be streamlined and friendly to production and field operations

c. Expanding services through outreach to multiple constituencies
   - Do more aggressive marketing through local TV and newspapers, “penny saver” publications, church bulletins, senior centers
   - Strengthen collaboration with social services agencies for recruitment of eligible consumers
   - Consider “fee for service” approach for households that exceed income limits
   - Should consider increasing energy auditing and diagnostic services to the general public -- especially older persons and working poor who will not qualify under our formulas. They need info about dollar-conscious choices and paybacks in heating/cooling costs. Most residents will not/cannot pay $350 for audit. Perhaps make $99 energy audit available to all, supported by a state subsidy.
• Strengthen opportunities to collaborate with local utility companies for outreach
• Expand SSI requirements to include SSD
• Persuade home building contractors of benefits of participating in Wx program.
• Coordinate with utility company lists and LIHEAP lists now that guidelines are increased
• We need to assure that capacity has grown before we do major outreach, or longer waiting lists will result.
• Sponsor or co-sponsor community forums on energy usage.
• Periodic energy newsletter
• Landlord education in energy efficiency

d. **Increasing weatherization production**
   • We will need additional secure, overnight parking for our vehicles
   • Consider one or more pooled purchasing mechanisms for vehicles, equipment, tools
   • Consider bulk purchasing of materials, investigate use of recycled materials
   • Consider possibility of manufacturing some weatherization supplies
   • Persuade the utility companies to use their tax credits to donate used trucks and other equipment to the nonprofit Wx providers.
   • GPS locators for client locations
   • Use additional testing equipment for backup and loan to subcontractors
   • PA Wx Providers Task Force should take lead in identifying most skilled providers in PA and nationally, and incorporate their measures and practices into real time approaches, including pilot projects.
   • DCED should consider equipment lend-lease arrangement, contractor earns ownership if certain number of completions and WAP contract billings are met.
   • Major purchases of vehicles and equipment should not come out of average cost per job

e. **Improving weatherization technology and innovation**
   • Create a full-time Weatherization Tech and Innovation Czar at WTC, constantly available for travel to local agencies.
   • Let’s see the state partner with our higher education institutions for local pilot projects – primary research on practical effects of alternative energy sources
   • We need to develop deeper savings, for example 40% - 60% rather than just 20% - 25% savings. Energy affordability will not be restored through 20% savings.
   • DCED should issue an RFP for innovative pilot programs capable of developing higher savings. See what comes back.
   • Use of laptops for in-home intake, auditing and post-inspections.
   • The challenge is to keep up with improvements in technology
   • Need to integrate new diagnostic equipment and techniques into conservations strategies: infrared camera, boroscopes, duct blasters, gas sniffers, etc.
   • We should be working toward major increases in energy education --- the savings could double what we now achieve through Wx.
   • We could use internet accessible, consumer-friendly software to record energy data and overall consumer savings. Should exceed what various energy companies are doing, but
we could recruit them to co-sponsor. Could provide incentives of utility discount for providing data.
• Engage clients and community participants in energy conservation and efficiencies via classroom and community meetings.
• Initiate PA Wind Farm with investment return that could fund future Wx and other energy conservation
• Use flexible LIHEAP T and TA funding as supplement to Wx T & TA --- put WTC in role of expanded technology development
• Use of incentives to consumers who keep energy costs low; provide monitoring tools for this.

f. Finance and administration of expanded program
• Much faster payment is essential. The program won’t expand if cash flow is constrained, especially for the largest and most rapidly growing providers.
• DCED should go back to the old reimbursement method for subgrantees which have not had any problems completing contracts in the past.
• Longer term, DCED should permit costs of borrowing
• Eventually, DCED will have to link Wx with carbon credit funding costs.
• Direct deposit capability for contract payments
• In the short term, use LIHEAP to allow greater flexibility while advocating for DEO changes.
• Have multi-year Wx contracts that can be modified by letter of amendment from DCED as additional appropriations are available.
• Budget authority in annual state budget can be made more flexible by adding provisions
• Offer incentives for providers who meet goals

g. Tracking systems, evaluation, and accountability

Evaluation
• The State is currently reacting to the AG’s audit by adding layers of administrative oversight. In reality, an impact evaluation is the most important monitoring tool DCED could have. It would make some of the field monitoring less important.
• As the program expands, evaluation becomes more important, both to increase energy savings and to lower overall administrative costs
• Annual impact evaluation is essential so that all sub-grantees have the information we need to improve the quality of our work.
• If the state plans to sell carbon emissions, evaluation is essential. To anticipate a Cap and Trade program, WAP will absolutely have to have an independent impact evaluation.
• Now with the statewide database, it will be much easier to do a valid statewide evaluation.
• The new statewide evaluation tool should adequately address issues.
• Statewide performance should be compared to national level achievements
• Key ratios and metrics should be shared among PA Wx providers
• DCED should establish a dedicated evaluation unit for ongoing analysis of program and operations.
**Computerized data and tracking systems**
- We need to avoid duplicate data entry, and would like to have support from DCED in our efforts to transfer data from our system to HES.
- Larger grantees with preexisting databases that can be linked electronically to HES should be interfaces.
- Software solutions should be adopted statewide. Need a state-level committee to establish criteria and protocols.
- We use the old Weatherite system, and it needs to be replaced. Intend to use Hancock software when it becomes available.
- Our tracking system should be Web-based, accessible online
- Provide annual cost benefit/savings ratio for measures installed
- We designed our own in-house tracking and warehousing system that works better than the state’s system.

**h. Organization changes needed (internal & external)**
- Continue development of a hybrid business model that uses both agency crew and subcontractors.
- We have steadily strengthened our financial systems over the last two years, but need to continue to do so. We need to strengthen our inventory control system a bit more.
- We hopes to be able to hire a Training Coordinator, expand our administrative staff to include an HR/Accountant, and if possible, a Communications Director. In the long run, we will need a Chief Operating Officer (COO).
- New emphasis on constant upgrading of skill levels
- We will have to take a look at increasing compensation levels, especially for field supervisors
- At our CAP, we constantly add new programs without increasing fiscal unit personnel. Perhaps look to finance/business internship programs with higher ed to support local fiscal units.
- We need to alter the supervisor to worker ratio. Current ratio is 1 supervisor to 13 workers. Move to 1 supervisor to maximum 8 workers, including crew chief.
- Develop “red flag” procedures to reduce problems in “grey areas” encountered by auditors, installation crews, inspectors and heating subcontractors.
- Consider model of long-term cooperative arrangements in which local weatherization providers subcontract more technologically-challenging measures, e.g., Solar BPI.
- Consider independent quality control personnel, separate from crew chiefs
- Set up in-house training capacity for ongoing quality improvement
RESPONSES RECEIVED:

(Allegheny) ACTION-Housing Inc.
Allegheny, Greene, Washing
Larry Swanson Exec. Dir.
Ken Provlic Wx Program Admin.

Armstrong County CAA
Armstrong Co.
Dan Dodd Housing Dir.

Beaver Housing Authority
Beaver Co.
Judy Love Acting Coordinator

(Bedford) Center for Community Action
Beford, Fulton
Gerald Jace Freight Depty Dir.

Berks Community Action
Berks Co.
Carole Koursaros Exec. Dir.

Blair County Community Action
Blair Co.
Bill Hunter Depty Exec Dir

Bucks County Opportunity Council
Bucks Co.
Roger Collins Exec. Dir.

Cambria County CAP
Cambria
Debra Zimmerman Exec. Dir.

Carbon Co Comm Action Committee
Carbon Centre/Clearfield
Angelo Santore Wx Dir.

(Centre) Central PA Community Action
Centre/Clearfield/Huntington
Hugh Daly Exec. Dir.

(Cumberland, Franklin) South Central CAP
Cumberland Franklin Sam Hepfer Wx Program Dir.

Dauphin Co Weatherization
Dauphin Co Craig Williard Director

Delaware County, CAA of
Delaware Co Edward Coleman CEO

Erie County Housing Authority
Erie Co Beverly Weaver Wx Coordinator

Erie (Greater) Community Action Cte
Erie Co Nick DiPlacido Wx Dir.

Fayette Redevelopment Auth
Fayette Al Jeffries Wx Dir.

HDC3
Huntington, Lebanon Jay Steen WAP Manager

Indiana Co CAP
Indiana Co Ed Dibble Director

(Jefferson Clarion) Community Action Inc
Jefferson, Clarion Robert Cardamone Exec. Dir.

Scranton/Lackawanna Human Dev Agency
Lackawanna Fred Lettieri Exec. Dir.

(Lehigh) CAC of Lehigh Valley
Lehigh, Northampton Richard Yudt Ed Energy Partnership

(Luzerne/Wyo) CEO
Luzerne Gene Brady Exec. Dir.

(Mercer) Community Action Partnership of
Mercer, Butler Germany Astolfi Wx Program Dir.

Monroe Co. Redevelp Auth/Wx Program
Monroe Kathleen O'Neill Planning Director

Lycoming Clinton STEP
Lycoming Clinton Kevin Mitchelltree Dir Wx & Renew.

(Mercury) Community Action Partnership of
Mercer, Butler Karen Smith Wx Manager

Montgomery Co. CADCOM
Co/Norristown Peggy Stewart Wx Secretary

Montgomery Co. CADCOM
Cameron Potter Elk Dave Singer Wx Program Coord

Northern Tier CA Corp
McKean Kevin Genevro Wx Coordinator

(Mercer) Community Action Partnership of
Northumberland Co Northumberland Wx Coordinator

(Philadelphia) Energy Coordinating Agency of
Northumberland Dwayne Sciccitano Exec. Dir.

Philadelphia Housing Development Corp
Philadelphia/Dwight T. Howard

Schuylkill Community Action
Schuylkill/Pottsville Dana Sylvester Wx Program Dir.

SEDA Council of Governments
Columbia, Juniata Terry Sadusky Wx Coordinator

SEDA Council of Governments
Mifflin, Montour, Perry, Snyder, Union Douglas Deihl Wx Program Dir.
<table>
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<th>County</th>
<th>Executive Director</th>
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<td>(Somerset) Tableland Services/CAPFSC</td>
<td>Somerset</td>
<td>Jeffrey Masterson</td>
<td>Exec. Dir.</td>
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<td></td>
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<td>Lisa Wengerd</td>
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<td>Trehab</td>
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<td>Wayne County Redev Authority</td>
<td>Wayne Pike</td>
<td>Jacqueline Young</td>
<td>Exec. Dir.</td>
</tr>
<tr>
<td>Westmoreland Co Housing Authority</td>
<td>Westmoreland County</td>
<td>Katie Clawson</td>
<td>Wx Dir.</td>
</tr>
<tr>
<td>Weatherization Training Center</td>
<td>Statewide training</td>
<td>Bill VanderMeer</td>
<td>Director</td>
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<tr>
<td>Michael Karp and Associates</td>
<td></td>
<td>Michael Karp</td>
<td>President</td>
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Total= 37 provider orgs representing 61 counties; 1 training center; 1 consultant

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<td>York Co Weatherization</td>
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Total= 4 provider orgs representing 6 counties
Completed by: ____________________________________________

Name                   Title

Representing: ________________________________________________

Agency                     City/town in PA

Contact information: _______________________

phone     email    fax

1. At this time, your agency views a significant expansion of weatherization funding as
   _a. An exciting opportunity for which we are willing to prepare as rapidly as possible
   _b. A challenge with too many obstacles, which we are unlikely to pursue
   _c. Other; please explain

Have you had an opportunity to engage your executive staff and Board of Directors in considering the
implications of “ramping up” for additional weatherization funding and production? If so, what are their
responses, positive and negative?

2. Crews and contractors.
   • If you provide weatherization services through direct hire of agency employees, what challenges do you
     anticipate in recruiting personnel for a vastly expanded weatherization program

   • If you subcontract weatherization services, what challenges do you anticipate in identifying and contracting
     with additional weatherization contractors?

3. Our ability to fully retrofit a home for energy efficiency will depend on a broader interpretation of “energy-
   related repairs” than that currently in use by the PA Weatherization Assistance Program.
   Agree       Disagree       Comment:

4. Other changes needed in the current Pennsylvania Weatherization Program in order to accelerate the pace of
   program expansion (e.g., contracting, payment, procedures, accountability)?

5. Can you list any new measures you would recommend incorporating into the program?

6. Would you recommend changes in the Priority List or payback period?
7. **Training.** What training programs or opportunities have you found to be most successful for your weatherization crews or contractors, at what skill level? Do you have ideas about new approaches to training for crews or contractors?

8. What three strategies could you implement quickly to increase production?
   1. 
   2. 
   3. 

9. **Quality assurance.** Certification for weatherization programs through the Building Performance Institute, Inc. (BPI) has been recommended by some energy experts. What are your thoughts in this regard?

10. **Best ways to structure expanded weatherization service delivery**
   a. Overall, it makes sense to keep the provider network as the focus for low-income building retrofitting for energy efficiency.
      Agree  Disagree  Comment:
   b. In geographic areas where the existing provider is unable or unwilling to expand weatherization services, another provider with sufficient capacity should step in.
      Agree  Disagree  Comment:

11. **Future stakeholder planning.** Are you willing to participate in a meeting of PA Weatherization Providers and the Department of Community and Economic Development to consider the opportunities and challenges presented by a large-scale expansion of weatherization?  
    Yes  No  Other (explain):
Part II. Preparing for Challenges Ahead

Please summarize in bullet form your thoughts and ideas about preparing for a vast expansion of weatherization, near-term (immediately and up to 2 years) and longer-term (3 to 5 years).

<table>
<thead>
<tr>
<th>Area of need</th>
<th>Preparation to ramp up in near future</th>
<th>Preparation for longer-term expansion</th>
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</thead>
<tbody>
<tr>
<td>a. Personnel recruitment (including program management and field staff)</td>
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<tr>
<td>b. Training needs for various skill levels</td>
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<td>c. Expanding services through outreach to multiple constituencies</td>
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<td>d. Increasing weatherization production</td>
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<td>e. Improving weatherization technology and innovation</td>
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<td>f. Finance and administration of expanded program</td>
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<td>g. Tracking systems, evaluation, and accountability</td>
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<tr>
<td>e. Organization changes needed (internal &amp;</td>
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