

Assessing Social Return (B): Windows of Opportunity

The Windows of Opportunity (WoO) business plan had reached the desk of Martin McCabe, a grants analyst for NWO Venture Philanthropy. NWO was an endowed venture philanthropy fund making investments in self-sustaining non-profit businesses with ambitious social goals.

WoO's mission was to prevent childhood lead poisoning – a condition that affects more than a million children in the U.S., mostly in poor urban communities. Structured as a not-for-profit business in 2001, Windows of Opportunity (WoO) was well placed to compete on a cost-basis against other window replacement companies. With a vision to franchise all across America, the WoO business model also provided a route to long-term employment for at-risk youth.

That afternoon, Martin was to advise senior managers on whether to invest in Windows of Opportunity, and was struggling to finalise his recommendation.

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LBS reference

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The plan for Windows of Opportunity (WoO) was established in 2001 by a team led by Michael Robbins. Robbins' vision was of a window replacement business that would protect children from lead poisoning caused by lead-based paint on window frames. Across the United States, more than one million children and their families had lead poisoning, and old window painted with lead-based paint were a primary poisoning hazard.

Windows of Opportunity would operate a lead-safe window replacement service, and several complimentary services around lead hazard reduction. Lead hazard reduction was generally perceived as an unattractive niche by the contracting industry due to low profit margins and high training costs. These included window rehabilitation, sampling for lead contamination and visual inspection for lead hazards.

More public funding and new regulations to address lead contamination were expected to increase consumer demand for this service. WoO's longer term vision was to build a replicable business model that would include both company-owned and franchised outlets in some of the US' poorest communities. It was within these poorer communities where most lead poisoning occurred and where unemployment rates were highest. A central aspect of WoO's business model was to provide its service via teams of specially trained employees, who were drawn from the growing group of disadvantaged 17-24 year olds who were at risk of chronic long-term unemployment.

To begin with, WoO would provide services to owner-occupants and landlords of those housing units in Baltimore and the Twin Cities, which were identified as being at the greatest risk of lead poisoning hazards.

These tended to be homes in low-income neighbourhoods built before 1950. There were an estimated 46,000 units falling into this high-risk target category in these two cities. Windows of Opportunity was seeking a total investment of \$282,000, \$195,000 in the first year of operations and \$87,000 in the second, from NWO Venture Philanthropy. It was also actively seeking funding to incorporate and launch operations in Minneapolis/St. Paul, Minnesota and Baltimore.

WoO would offer its services on a "per window" basis. Wood replacement windows would be priced at \$525 per window, while vinyl replacement windows would be priced at \$400. These prices were extremely competitive and over the long term, WoO intended to operate at a gross margin of only 25%, with general and administrative expenses likely to account for a further 22.5% of revenue.

Overall, WoO's status as a non-profit organisation allowed the company to maintain a lower cost structure than other organisations and to offer prices that would allow for rapid market penetration. For an average inner-city housing unit, some contractors were likely to charge at least twice as much as WoO. While homeowners and landlords would be charged a fee, this sum would be based on their eligibility for grant-based funding, which WoO would guide them towards upon receiving evidence of clear financial and environmental need.

WoO was being incubated through the Shriver Centre in Baltimore and operated in partnership with two Shriver Centre programs – ClearCorps and Choice. ClearCorps was an AmeriCorps program working in eight cities to prevent childhood lead poisoning. Choice was a nationally

acclaimed program aiming to reduce juvenile delinquency through employment training for troubled youth. These two programs had agreed to provide referrals (customers and crewmembers), marketing assistance and program management support to WoO.

WoO planned to train teams of WoO crewmembers to achieve an EPA-recognised “lead worker training” qualification. Supervisors would receive appropriate certifications. All teams would also receive hands-on training in lead-safe window replacement from experienced instructors in a closely supervised setting.

WoO’s target recruitment pool would come from the 17-24 year olds at risk of chronic unemployment. Crewmembers would be recruited from low-income neighbourhoods that were WoO target areas. It was expected that crewmembers would be transitioned into other jobs after two years in order to make room for new trainees.

Training with WoO would include job-specific skills and state-approved certification, in addition to preparation and job search assistance as the end of the two year period approached. Each crew member’s reading and maths skills would also be improved as an off-shoot of the job-specific skill development programme. Research on the social benefits of similar programmes estimated an improvement in lifetime earnings of \$7,390. Other benefits included cost savings from decreased reliance on public assistance (welfare, health care) and decreased risk behaviour (e.g. drug use & criminal activity).

Once trained, WoO staff would conduct lead-safe window replacement in homes at greatest risk of lead poisoning hazards. The experience of the ClearCorps program had

shown that, on average, there was 1.5 at risk occupants (pregnant women and children under six) in each targeted home.

It was expected that window replacement would be conducted in 73 homes in the first year of operation under the auspices of two relatively new crews. Over time, crews would be added, and existing teams would gain in experience. By Year 5, WoO would target 705 homes for window replacement a year.

The problems of lead poisoning had been well documented by the US Department of Housing and Urban Development (HUD). Lead poisoning results in brain damage - with the under six age group especially vulnerable - leading to decreases in expected future wage levels and labour market participation later in life. HUD estimated that protecting the highest risk children from lead poisoning would result in a mean reduction in blood levels of 5.46 micrograms per decilitre and that each microgram reduction would correlate to an increase in lifetime earnings of \$1,493 (NPV) per child affected¹

Additionally, lead poisoning causes learning difficulties, hyperactivity and behaviour problems. HUD reported that each case of lead poisoning prevented among high-risk children would result in public savings of \$4,000 (NPV) in special education.

Treatment costs for lead poisoned children included medical appointments and special procedures. HUD reported that preventing childhood lead poisoning in high-risk children would result in savings on average of \$1,800 (NPV) in medical costs. HUD also estimated that the NPV of lead poisoning prevention and preventing neonatal deaths amounts to \$45 (NPV) per home.

¹ 4.6% discount rate (10 yr municipal bond yield rate).

In addition to posing lead poisoning hazards, old windows in high-risk units are poor insulators and replacing these windows can result in significant energy cost savings to low-income families, reducing their heating and air-conditioning costs (See Exhibit 3).

Based on the experience of the AmeriCorps program, WoO estimated that by improving the employment prospects of its youth crewmembers, their lifetime earnings would be increased by an NPV of \$7,390. Other benefits of WoO's employment training activities included cost savings from decreased reliance on public assistance (welfare, health care) and from decreased risk behaviour (e.g. drug use, criminal activity).

The future of the WoO business

During the initial phase of operations, the business would focus on lead-safe window replacement and would offer environmental sampling and visual inspection services on only a small scale. The market for these services is broad, however, and they had the potential for development as stand-alone services targeted to other markets.

Secondly, WoO would grant franchises after the first five years of operations. Franchising would enable WoO to obtain economies of scale, while rapidly penetrating local markets and sharing the risk of continued expansion. Franchise fees would include a one-time fee of \$5,000 per franchisee and continuing royalty payments of 5% of

profits. WoO would also provide training for franchise owners, national marketing support and ongoing consulting services for the owner-operated locations.

The third growth area would be non-profit consulting services. Having successfully established a national not-for-profit business, WoO personnel would use their knowledge to assist fellow non-profits with asset identification, business opportunity analysis and corporate alliance building.

The fourth growth area for WoO would be in cause marketing and corporate sponsorships. WoO would seek out alliances with companies in the construction and home renovation industry: paint window and tool manufacturers, hardware stores and do-it-yourself warehouse stores, for example. By partnering with WoO, these companies would improve their brand image, gain access to new markets and boost sales, while providing WoO with monetary and in-kind support.

WoO did not have an accurate figure for the number of pregnant women in its targeted homes and was conservatively estimating that only one at-risk occupant would be in each home receiving window replacement services. The business plan proposed a \$92 SNPV for every dollar invested, using a discount rate of 4.6%, the local government bond rate. Martin reviewed his own notes figures and prepared himself to make his pitch.

Exhibit 1: Profit & loss summary (pro forma)

\$s	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Sales	307,969	1,333,125	1,588,359	2,254,922	2,972,109	3,061,273	3,153,111
Cost of Goods sold	223,150	959,850	1,143,619	1,623,544	2,139,919	2,218,154	2,284,698
Gross profit	84,819	373,275	444,741	631,378	832,191	843,119	868,412
Wages	101,894	187,231	266,804	353,867	448,968	471,417	494,987
Advertising	3,000	3,000	4,500	6,000	7,500	9,000	12,000
Insurance	13,000	20,000	27,000	37,000	47,000	48,410	49,862
Rent	19,200	24,000	33,600	55,200	57,600	59,328	61,108
Utilities	4,800	6,000	8,400	11,400	14,400	14,832	15,277
Field equipment	3,200	3,200	1,600	1,600	1,600	800	824
Office equipment & supplies	2,960	1,200	2,680	3,280	3,880	3,996	4,116
Capital expense (vans)	30,000	30,000	15,000	30,000	30,000	0	0
Transportation	1,800	7,200	8,100	11,700	15,300	15,759	16,232
Other	2,970	5,040	7,128	9,045	11,565	11,912	12,269
Depreciation	3,000	6,000	7,500	10,500	13,500	13,500	13,500
Operating income	(101,005)	80,404	62,429	101,787	180,877	194,165	188,237
Other revenues	0	0	22,000	39,000	61,000	67,830	76,725
Net income	(101,005)	80,404	84,429	140,787	241,877	261,995	264,962

Exhibit 2: Work program

	Year 1	Year 2	Year 3	Year 4	Year 5
Number of new crews	2	2	1	1	1
Number of new crewmembers	12	12	6	6	6
Number of seasoned crews	0	2	4	6	7
Number of homes with windows replaced	73	316	377	535	705

Exhibit 3: Energy saving summary

Annual cooling costs

	Old windows	Replacement	Savings
Baltimore	\$600	\$500	\$100
Minneapolis	\$600	\$500	\$100

Annual heating costs

	Old windows	Replacement	Savings
Baltimore	\$500	\$400	\$100
Minneapolis	\$500	\$425	\$75