



UMASS DONAHUE INSTITUTE



Western Massachusetts Workforce Action Plan for Homeless Families: Data Report

Prepared for the Western Massachusetts Network to End Homelessness and United Way of Pioneer Valley

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Executive Summary

The UMass Donahue Institute (UMDI), at the request of the Western Massachusetts Network to End Homeless, and in fulfillment of a grant by the Paul and Phyllis Fireman Foundation, undertook a process to develop an action plan to improve access to workforce opportunities for homeless families in Western Massachusetts, which was produced in April 2012 and titled “Getting to Work: An Integrated Approach to Workforce Achievement for Western Massachusetts Homeless Families” (and henceforth called “Action Plan”). In the interest of providing a status report on available data and providing a foundation for outcomes measurements for the proposed action plan, UMDI conducted an analysis of data collected by regional providers for the Homeless Management Information System (HMIS), the primary data collection mechanism for Emergency Assistance shelter providers in the Commonwealth of Massachusetts.

This brief report summarizes the HMIS data available for Western Massachusetts as provided by the three regional Continua of Care (CoC): Springfield CoC, Three-County CoC, and Berkshire CoC. Current HMIS software systems in use in the region were adopted in February 2011 or later. Given that these systems are still relatively new, this report also serves as an initial assessment of data quality and completeness for the HMIS systems in use in Western Massachusetts.

It is important to note that HMIS data do not represent all families who receive assistance through the Emergency Assistance system; most notably, families staying in hotels and motels and domestic violence shelters are excluded from the HMIS data, and not all families in the HomeBASE program have been entered into HMIS yet. Finally, it was assumed that HMIS would be a natural possibility for outcomes measurement for the Action Plan; this possibility and other data recommendations are discussed in this report as well.

HMIS data reviewed in this report were current as of December 2011 or January 2012.

Overview of Homeless Family Characteristics According to HMIS

- In 2011, over 675 households entered shelter or supported housing in Western Massachusetts. In these families, there were 1,484 adults over the age of 17 and 1,670 children. Most adults were in their 20s: 40 percent were between 21 and 29 in 2011. The majority of children were under the age of 8: 63 percent in 2011. Thirty-four percent of children entering the HMIS system in 2011 in Western Massachusetts were under age 4.
- Educational data on those entering shelter and supportive housing in 2011 shows that for the 74 percent for whom data were available, 38 percent of the adults had not finished High School, and 11 percent had completed some post secondary education.
- More than four out of five adults had some income in the month prior to entering shelter or supported housing, and a similar proportion received non-cash benefits, such as child care vouchers. Conversely, this means that approximately 14 percent did not have income, and 15 percent did not have non-cash benefits. Most adults with any reported income received between \$250 and \$750 per month.

- Between 15 and 20 percent of adults were employed at the time of system entry during the 2009 to 2011 period of analysis.

HMIS, Outcomes Measurement and Recommendations

This report therefore provides a basic logic model and discussion of potential outcome measures for the recommendations presented in the Action Plan, which may provide the basis for evaluation outside of the HMIS system. Key process and outcome measures include:

- Employment specialist's contacts with clients
- Employment specialist's contacts with employers
- Meetings between case workers/ employment specialist across agencies
- Client access to support services: child care, transportation, education, mental health, etc.
- Clients' courses and degrees completed/ certificates earned
- Clients' hours/ days/ weeks employed
- Clients' earnings from work.

The HMIS data provide valuable and relevant information about shelter program family participants, and a summary of those data is presented here. At the current time, the HMIS system is too new and data are too incomplete to provide a stable baseline for program evaluation. This may not always be the case, and as the system is fine-tuned and data collection practices are improved, it may become viable to use these data more broadly.

The Uniform Assessment Tool (UAT) promoted by the Massachusetts Department of Housing and Community Development (DHCD) includes recommended data items for HMIS systems, which include many of those presented here as well as other measures that could be of interest to employment programs. However, service providers often do not collect these data, likely because of time and other practical constraints. In an effort to be mindful of the constraints of time and funding that providers face, the outcome measures recommended in this report are limited to those considered most necessary to allow for both program improvement and evaluation.

HMIS Description and Data Methods

HMIS data were available for three years: 2009, 2010 and 2011. We present data for all available years. Since various data systems and questionnaires were in use during the period from 2009 to 2011, and since some years were characterized by more missing data than others, the discussion avoids direct comparisons between years on the basis of these data.

Description of the Data

The data used for this report are from the Homelessness Management Information System (HMIS) for Berkshire, Franklin, Hampshire, and Hampden Counties from 2009 to 2011. HMIS data were extracted, stripped of identifying information, cleaned, and analyzed by UMDI.

HMIS data do not contain all homeless families in Western Massachusetts. HMIS data include records of individuals and families staying in shelters, and increasingly they also include families participating in rapid re-housing programs such as HomeBASE. There are no data for the still significant number of families staying in hotel/motels, nor for families in domestic violence shelters.

Data Methods

HMIS data are recorded for individuals, with links to a household. For the purpose of this report, households with children under the age of 18 were counted as families. The system also allows for data entry at multiple points in time, tracking individuals as they enter the Emergency Assistance system, receive aid under additional programs and funding streams, and exit the system. Due to data quality issues, including the fact that system exit is often unrecorded, it is often not possible to tell whether a duplicate entry for a given individual or family reflects a system exit and re-entry, or simply the receipt of aid under a new program. In order to count each family (and adult, where applicable) only once, families and adults were counted at their first point of system entry during the 2009-2012. Therefore, the counts presented here are conservative and may undercount repeat clients. Data are presented by year of first service. While time series comparisons are not possible because of changing software systems and practices, data are presented by year to give a sense of what data were and are being collected.

Because of this report's focus on income and employment, most of the information included here exclusively describes adults, defined as people who are both over age 17 and not marked as a "Child" in their record of Relationship to Head of Household. Two measures rely on age alone to distinguish adults and children: the tabulation of ages, and the count of adults and children, so that all people under the age of 17 would be included as children in those two tables, and all over 17 would be counted as adults.

Data Quality

Data quality varies over the different measures in the HMIS data. Some of the measures are much more reliable than others, as they have very little missing or unknown data. In particular, education and employment data presented issues with completeness, posing a particular challenge in using HMIS data to set any relevant baselines for employment programs, and we do not recommend that current HMIS data be used in this manner.

The below table shows each measure's percent of unknown data. This includes missing data (blanks) as well as those marked as "don't know", "refused", "client doesn't know", and "didn't ask". Some fields are required during data entry, and while these do not have missing data, some do allow clients to refuse or to answer "don't know." The numerical measure "Monthly Income" is both required, and does not allow an option for refusal or an answer of "don't know," and therefore refusals or missing values are likely to be entered as zero and to be indistinguishable from true zero values. The measures of "Income" and "Non-Cash Benefits Within the Last 30 Days" are presented separately in order to specifically record the percentage marked "refused" and "don't know". This is because these two measures do not have any blanks, as they are required fields.

Percent Unknown Data by Measure

	2009	2010	2011
Number of Households	30%	28%	46%
Adults and Children in Families	1%	0%	1%
Age	1%	0%	1%
Gender	0%	0%	26%
Hispanic Origin	3%	3%	32%
Race	14%	11%	36%
Highest Grade Level Completed	43%	40%	26%
Adults Currently Employed	29%	26%	17%
Employment Tenure	88%	89%	82%
Looking for Work	41%	38%	47%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Percent "refused" and "don't know"

	2009	2010	2011
Income in the Last 30 Days			
Percent refused + don't know	9%	11%	6%
Percent blank	0%	0%	0%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Non-Cash Benefits, Last 30 days	2009	2010	2011
Percent refused + don't know	24%	23%	6%
Percent blank	0%	0%	0%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Demographic Information

Number of Households

At least 675 households entered shelter and rapid re-housing programs in Western Massachusetts in 2011. This is a conservative count, since not all individuals have household identifiers.

	2009	2010	2011
Family households	493	799	675
Family individuals not assigned to households	214	318	567

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Adults and Children in Families

At least 1,484 adults and 1,670 children entered shelter and rapid re-housing programs in Western Massachusetts HMIS in 2011. Adult and child counts are based on age; with adults being defined as anyone over the age of 17, although occasionally, families include 'adult children': a child of the head of household who is over 17 years old.

	2009	2010	2011
Adults in families	899	1354	1484
Children in families	987	1565	1670
Blank	18	11	35
Total known	1886	2919	3154
Child to Adult Ratio	1.1 : 1	1.2 : 1	1.1 : 1

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Age

Adults entering shelter programs are most commonly in their twenties. In 2011, 23 percent of adults entering the system into shelter and supported housing in Western Massachusetts were 21 to 25 and 18 percent were 25 to 29. As might be expected given the young average age of parents entering shelter, younger children are more common than older children: children are most commonly under age 6. Thirty-four percent of children entering the HMIS system in 2011 in Western Massachusetts were under age 4.

	2009	2010	2011
Children			
0 to 4	362	550	560
4 to 8	236	419	479
8 to 12	194	306	318
12 to 17	173	266	304
Adults			
17 to 21*	118	186	167
21 to 25	153	296	338
25 to 29	167	252	261
29 to 33	134	179	230
33 to 37	92	140	165
37 to 41	77	102	131
41 to 45	63	67	75
45 to 50	49	61	52
50 to 100	46	71	65
Blank	18	11	35
Pregnancies (<0)	22	24	9
Total known	1886	2919	3154
Adults (>17)	899	1354	1484
Children (=<17)	987	1565	1670

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

*Note: the majority of people who fall into the age category 17 to 21 are marked "Child" in Relationship to Head of Household. These are adult children in families. Others in this age group are marked "Self", meaning they are the head of household, or "Spouse", or the Relationship to Head of Household data has been left blank.

Gender

The majority of households entering shelter programs are headed by females.

	2009	2010	2011
Male adults	194	257	237
Female adults	661	1017	816
Blank	0	3	370
Total known	855	1274	1053
Percent Male	23%	20%	23%
Percent Female	77%	80%	77%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Hispanic Origin

Information about Hispanic origin is more reliable in the 2010 data than the 2011, which has significantly more missing data. In 2010, nearly half of the adults for which information is available reported they were of Hispanic origin. Since in 2011 there was a marked increase of missing data, we cannot easily use it to establish a change over time. It is therefore not completely clear if the proportion of adults of Hispanic origin entering shelter is increasing over time or not.

	2009	2010	2011
Hispanic	303	568	527
Non-Hispanic	526	669	445
Blank, refused, or don't know	26	40	450
Total known	829	1237	972
Percent Hispanic	37%	46%	54%
Percent Non-Hispanic	63%	54%	46%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Race

As with Hispanic origin, information about race is more reliable in the 2010 data than the 2011, which has much more missing data. People reporting their race as American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander are reported as a group because numbers are very low and could otherwise potentially be identifying. Those reporting more than one race (where the second race listed differed from the first) were also too few to report. Consistently over time, most commonly reported race was White, at near 80 percent in the two most recent years of data, followed by Black or African American at around 19 percent.

	2009	2010	2011
Other reported races, grouped	3	12	12
Black or African American	96	213	177
White	640	912	727
Blank, refused, or don't know	116	140	507
Total known	739	1137	916
Percent other reported races	0%	1%	1%
Percent Black or African American	13%	19%	19%
Percent White	87%	80%	79%

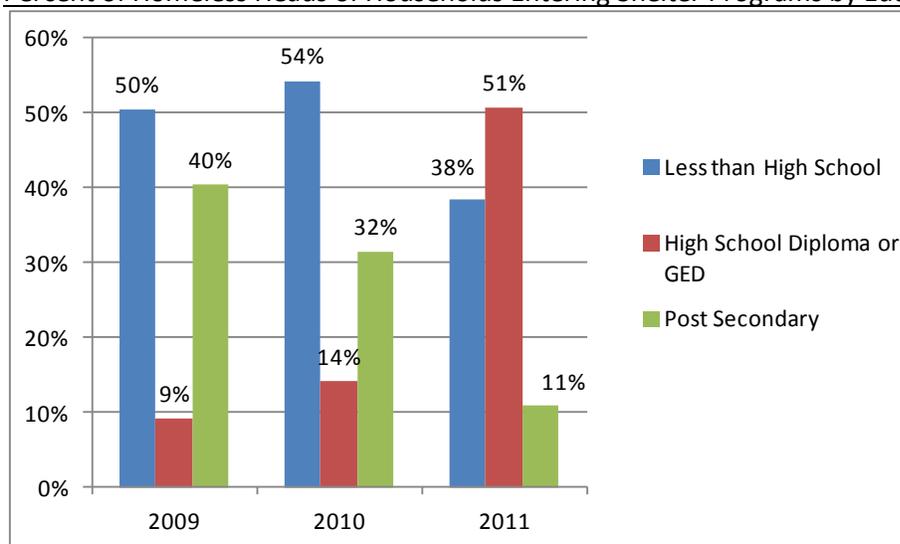
Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Education, Income, and Employment

The picture of educational attainment is striking, if not entirely clear-cut. Unfortunately, there is a large amount of missing data for this measurement, so any interpretation of the data must be undertaken with caution.

The majority of the adult family members for whom we have information in 2009 and 2010 had not received a high school diploma or GED. On the other hand, in 2009 and 2010, a significant minority – between 30 and 40 percent – had completed some post-secondary education.¹ The data from 2011, which is more complete, presents a slightly different educational picture. Fully half of those for whom data were available report earning a high school diploma or GED. More than a third had not completed high school; however, just over one in ten had completed some post-secondary education. Due to large amounts of missing data even in 2011, it is not possible to determine to what extent this represents a real change over time or likely, an improvement in data collection.

Percent of Homeless Heads of Households Entering Shelter Programs by Education Level



Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

¹ The HMIS data do not distinguish completion of post-secondary education, nor does it discriminate 2-year from 4-year or other programs. The HMIS system does contain a measure called “Degree”, which can record what degrees clients hold, but in 2011 more than 40 percent of the data was missing, and in prior years 70 percent or more were missing, so it is not presented within this report. There is also a vocational training measure which has similar data quality problems.

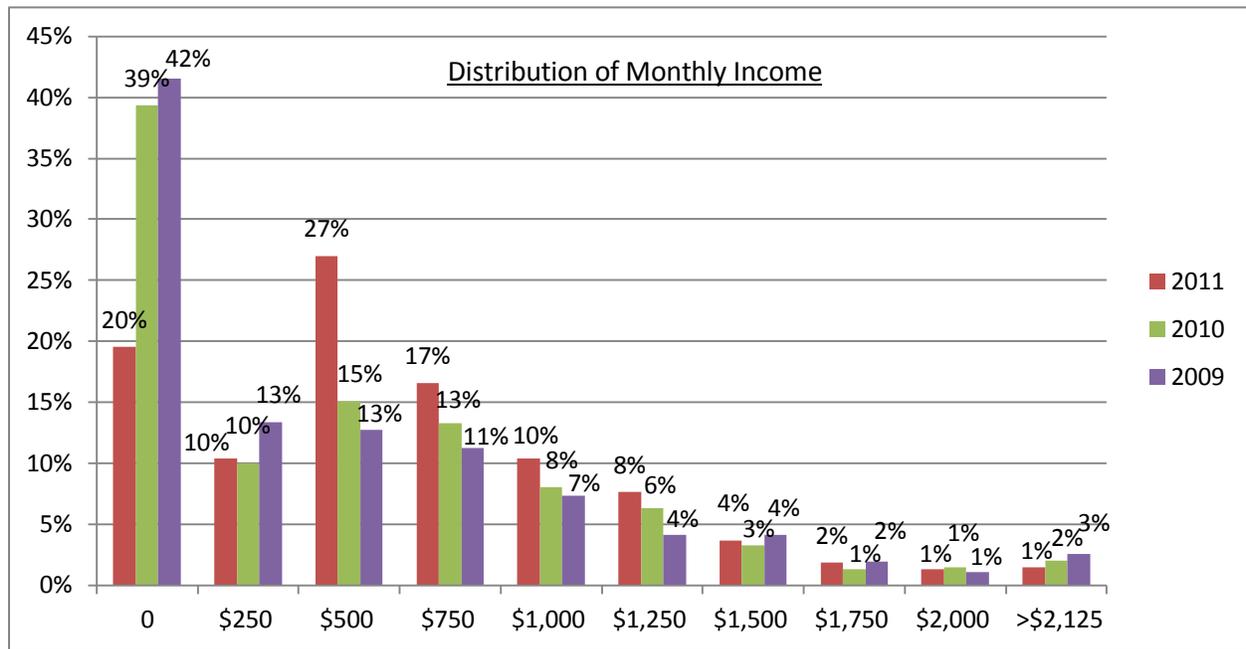
Highest Grade Level Completed Count

	2009	2010	2011
Post Secondary School	214	209	81
High School Diploma	48	91	240
GED	1	3	138
Didn't Finish High School	267	360	287
Blank + refused	397	436	261
Total known	530	663	746

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Income

As may be expected, entering adults' monthly income is typically quite low. In the 2010 and 2009 data, the most common amount is zero, though it is difficult to distinguish true zeros from a lack of information, because the field is numerical only and does not allow responses such as "don't know" or "refused". Caution must therefore be used, and for this reason an average cannot be responsibly calculated from this data. The percentage of people reporting that they did have income is better measured in the following table, recording if the respondent did or did not have income within the last 30 days, where less than 20 percent said they did not have any income over the prior month. There is still information that can be gleaned from this monthly income amount data, however. The second most common amount of monthly income (after zero) was around \$500 per month, which was most common in the 2011 data. There were very few cases of adults entering family shelter or supported housing earning more, the highest amount received was over \$3,000 per month but these cases are very few, and are best interpreted together with knowledge of how many people this may support. The vast majority were under \$800 per month of income for themselves and their families.



Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Number of Adults by Monthly (Individual) Income

	2011	2010	2009
0	199	432	385
\$250	106	110	124
\$500	275	166	118
\$750	169	146	104
\$1,000	106	88	68
\$1,250	78	69	38
\$1,500	37	36	38
\$1,750	19	14	18
\$2,000	13	16	10
>\$2,125	15	22	24
Total known (no blanks)	1017	1099	927

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Income in the Last 30 Days

More than three-quarters of the respondents received some amount income within the last 30 days of entering shelter. This measure is reported here on adults in families only, meaning people over 17 who are not marked as “Child” in their Relationship to Head of Household. Income includes both earned income and cash benefits received.

	2009	2010	2011
Yes	639	702	753
No	204	256	126
Refused + Don't know	79	116	52
Total known	843	958	879

Percent Yes	76%	73%	86%
Percent No	24%	27%	14%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Non-Cash Benefits in the Last 30 days

An even greater percentage of adults entering the system had received non-cash benefits within the last 30 days. Well over 80 percent of people over the age of 17 who are not marked as “Child” in their Relationship to Head of Household received non-cash benefits in the month prior to entry into shelter or supported housing. This measure, as well as the measure of those receiving income within the last 30 days, have much less missing data than some of the other items. Because the data is more complete than in other measures, it is more reasonable to look at this information over time and observe that the number of people who received non-cash benefits in the last 30 days seems to be decreasing.

	2009	2010	2011
Yes	678	744	762
No	18	73	132
Refused + don't know	217	242	58
Total known	696	817	894

Percent Yes	97%	91%	85%
Percent No	3%	9%	15%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Employment

The majority of adults were not currently employed when entering the system in each of the three years examined. This data has a fairly large proportion of data missing over the three years examined. Of those records for which we have information, it appears that in 2011 approximately four-fifths of the adults with data reported were not currently employed upon entering shelter or rapid re-housing.

Adults Currently Employed

	2009	2010	2011
Yes	113	121	158
No	539	678	606
Blank, didn't ask + refused	269	287	153
Total known	652	799	764
Percent Yes	17%	15%	21%
Percent No	83%	85%	79%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Employment Tenure

If the entering client is employed, this data item is supposed to record if the work is permanent, temporary, or seasonal. There is far more missing data than data itself, which may be a reflection of the fact that answering this item is conditional on having work, or it may indicate something else, such as simply not entering this information. This lack of clarity makes evaluating the quality of this data difficult. A further complication is that for permanent work, the person entering the data must select "yes" (there is no option called "permanent"). This may be causing additional confusion. Despite these reasons for caution, the informative potential of this data makes it worth including for consideration. Taken at face value, the small amount of information that is available indicates that the majority of those adults with employment are likely employed on a permanent basis, as opposed to seasonal or temporary work.

	2009	2010	2011
Yes	95	92	129
Seasonal	4	2	13
Temporary	12	21	19
Blank, refused + don't know	810	972	758
Total known	111	115	161
Percent Yes	86%	80%	80%
Percent Seasonal + Temporary	14%	20%	20%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Looking for Work

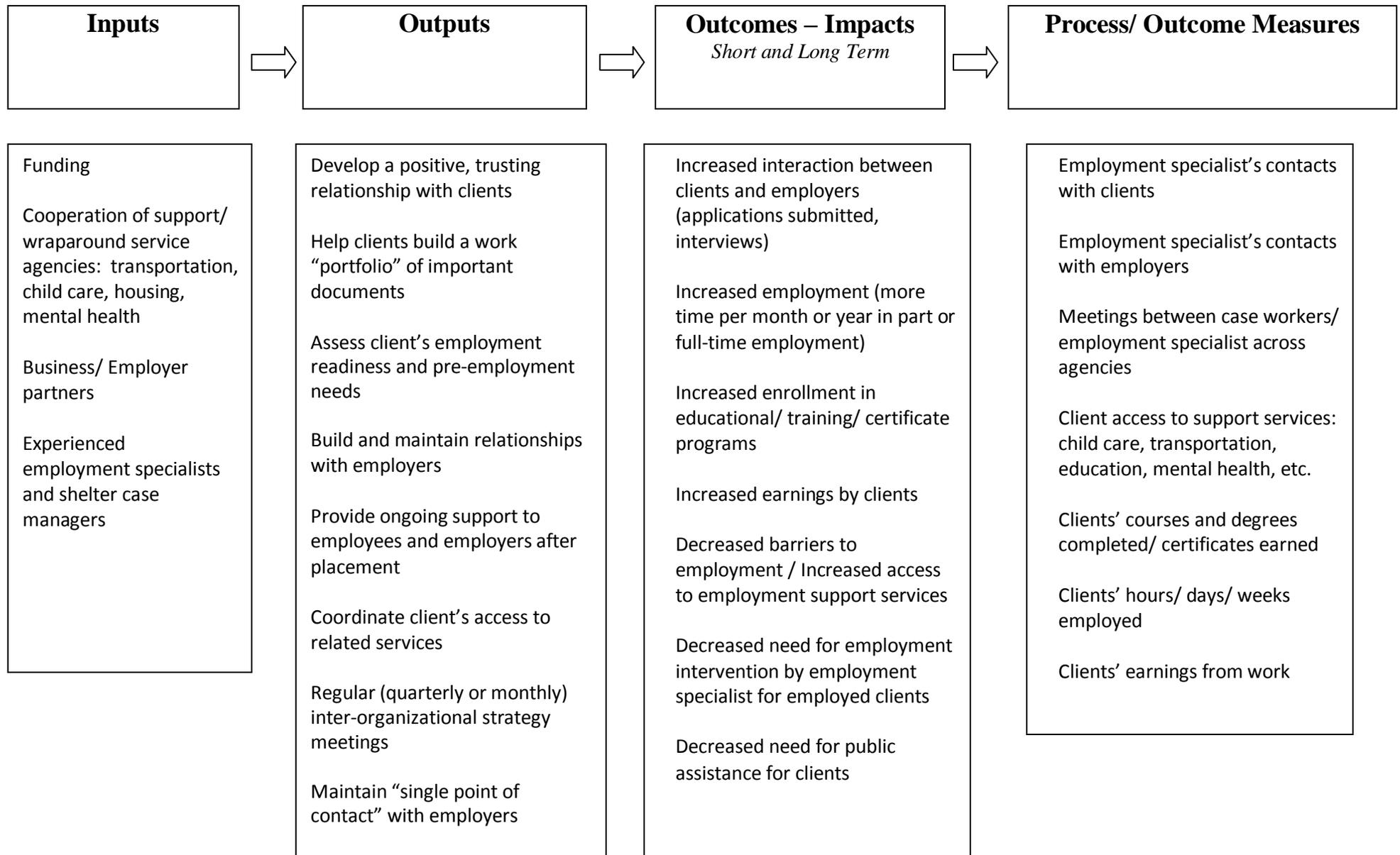
While the data about adults who are looking for work seems to be low in quality due to the amount of missing data, this type of information is nevertheless an important part of the employment picture and is therefore still included in this report despite its flaws. The puzzling pattern of what appears to be far more people looking for work in 2011 than in prior years could be a result of unstable data. It is unclear if this is a true trend or simply a result of too many lines which are missing information. Certainly these figures should be interpreted with great caution. This particular question is also complicated, as those people who are in school or already have work may not be seeking additional jobs or more hours, and this question can be posed to both the unemployed and those who are already employed or in school. Further inquiry to determine the proportion of adults in families who are seeking work is merited.

	2009	2010	2011
Yes	180	247	351
No	358	428	141
Blank, refused + don't know	376	415	428
Total known	538	675	492
Percent Yes	33%	37%	71%
Percent No	67%	63%	29%

Source: Western Massachusetts family HMIS data for 2009, 2010, and 2011; Calculations by UMDI.

Logic Model and Evaluation Recommendations

A basic program logic model is presented on the following page, and focuses on the first three Action Plan recommendations: the creation of an Employment Specialist position, increased coordination between agencies, and strengthening relationships with employers. This model presents a minimal list of process and outcomes measures. A primary concern in developing this list, given the very real time and resource constraints faced by providers, is ensuring that data collection not be too onerous. Finally, these measures are intended to contribute to program improvement as well as evaluation.



Conclusion

The HMIS system, while still new, provides a common platform for tracking select attributes of homeless clients. This report represents the first time that data have been combined from the three Western Massachusetts Continua of Care to provide an overall look at the region's homeless families, but it should certainly not be the last. The Western Massachusetts Network to End Homelessness continues to push forward data analysis efforts, highlighting its valuable role in coordinating between the region's service providers.